

SIX MONTHLY ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

[Period of EC Compliance- April, 2022 to September, 2022]

Status of the implementation of the stipulated environmental safeguards

Environmental Clearance granted by MoEF&CC Vide order no. J-11015/272/2007-IA. II (M) dated 23.09.2014 & EC amendment Order No. J-11015/272/2007-IA. II (M) dated 30.07.2020

of

Kiriburu – Meghahatuburu Iron Ore Mine (Mining lease Area- 2897.499 ha)

Category of Project – “A”

[Iron Ore Production (ROM): 16.0 MTPA (Kiriburu Mine- 7.5 MTPA & Meghahatuburu Mine- 8.5 MTPA)]

P.O. – KIRIBURU, PIN: 833222

DIST.: SINGHBHUM (WEST)

JHARKHAND STATE

Under



**Steel Authority of India Limited
Bokaro Steel Plant**

NOVEMBER, 2022

Period: April, 2022 to September, 2022

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कमलेश राय
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मुख्य महाप्रबंधक (खान)
CGM (Mines), KIOM

राजगोपाल पन्नीर सेल्वम
RAJAGOPAL PANNEER SELVAM
मुख्य महाप्रबंधक (खान) / CGM (Mines)
मेघाहातुबुरु लोह अयस्क खदान
Meghahatuburu Iron Ore Mines
पो. मेघाहातुबुरु 833223 / Meghahatuburu 833223
जिला-सिंहभूम (प.) झारखण्ड / Dist.: Singhbhum (W) Jharkhand

PROJECT DETAILS**KIRIBURU-MEGHAHATUBURU IRON ORE MINES**

SAIL- Bokaro Steel Plant operate two of their own captive iron ore mines namely Kiriburu Iron Ore Mine (KIOM) and Meghahatuburu Iron Ore Mine (MIOM) which are located in Karampada Reserve Forest (R.F.), Noamundi Tehsil, West Singhbhum District of Jharkhand and. Earlier there were 3 (three) Mining Leases i.e. Lease-I, Lease – II and Lease III (in which two operating Mines – Kiriburu & Meghahatuburu are existing). Now these leases have been amalgamated into one lease with area 2897.499 ha vide letter no. Kha.Ni (Chai)-31/2005/1750/M/Ranchi dated 23.10.2019 of Director Mines & Geology, Jharkhand Govt. of 2897.499 ha.

The two mines continue to operate separately for administrative purposes and have separate quarries, beneficiation plants, material dispatch facilities and other infrastructure running independently. The Kiriburu Iron Ore Mine is in operation since grant of lease i.e. from 1960 and subsequently, Meghahatuburu Iron Ore Mine was developed in 1985.

SAIL had earlier proposed to increase the production of the two mines without increase in lease area. The proposed expansion included increasing ROM iron ore production capacity to 16 MTPA (8.5 MTPA from Meghahatuburu and 7.5 MTPA from Kiriburu), Expansion and Modernization of the existing iron ore beneficiation plants capacities to 16 MTPA, Modernization of existing material handling facilities commensurate with increased production and setting up Slime Beneficiation Plants for recovery of iron rich material from tailings. The proposal had received Environmental Clearance from MoEF&CC vide their letter no. J-11015/272/2007-IA. II(M) dated 23rd September, 2014. Further, EC was amended by MoEF&CC, New Delhi vide letter No. J-11015/272/2007-IA. II (M) dated 30.07.2020 under para 7 (ii) of EIA Notification, 2006 (as amended) for Change in Product Mix by including excavation and dispatch of tailings from tailing ponds keeping the total production 16 MTPA ROM (14 MTPA ROM + 2 MTPA tailings).

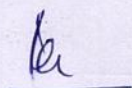
KEY STATUTES FOR OPERATION OF MINES

Sl	Approvals	Act/ Rules/ Notification/OM	Status/Validity
01	Mining Lease	MMDR Act, 1957 (amended in 2015/2021)/ MCR, 1960 and amended in 2016/2021	Mining Lease Deed executed for 2897.499 ha & valid till 2030
02	Mining Plan/ Review of Mining Plan	MMDR/ MCR/ MCDR, 2021	Valid / Plan reviewed by IBM
03	Environmental Clearance	EIA Notification, 2006	Granted on 23.09.2014 & amended on 30.07.2020
04	Forest Clearance	FC Act, 1980 & as amended	Stage-II Fc exists for 726.09 ha Stage-I FC exists for additional 247.5 ha
05	Consent to Establish (CTE)	Air & Water Act	Obtained from JSPCB, Ranchi
06	Consent to Operate (CTO)	Air & Water Act	Obtained from JSPCB, Ranchi & valid till 31.12.2024

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Status of Compliance to Conditions Stipulated in Environmental Clearance
(Vide order no. J-11015/272/2007-IA. II (M), dt.23.09.2014) & (Vide order no. J-11015/272/2007-IA. II (M) dated 30.07.2020) of
Kiriburu – Meghahatuburu Iron Ore Mines, BSL-SAIL
(Period: For April, 2022 to September, 2022)

A. Specific Conditions

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
(i)	Environment clearance is subjected to obtaining clearance, if any, under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.	<ul style="list-style-type: none"> There is not any notified National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve are located within 10 km from the Mining Lease boundary. Hence it is not applicable to this mining project.
(ii)	No Mining activities will be allowed in forest area for which the Forest clearance is not available.	<ul style="list-style-type: none"> Mining & Allied activities are restricted to 726.09 ha for which Stage-II forest clearances have been granted from MoEF&CC.
(iii)	The Project proponent will seek and obtain approval under the FC Act, 1980 for diversion of the entire forest land located within the mining lease within a period of the two years from 01.02.2013 i.e. the date of issue of guidelines by FC vide their letter F. No 11-362/2012-FC, failing which the mining lease area will be reduced to the non- forest area plus the forest area for which the project proponent has been able to obtain the FC at the end of this period. The case of reduction in mine lease area, the project proponent will need to get a revised mining plan approved from the competent authority for reduced area and enter into a new mining lease as per reduced lease area. The EC will be construed to be available for the mining lease area as per the revised mining lease deed.	<ul style="list-style-type: none"> MoEF&CC vide F.No.11-599/2014-FC, dated 01.04.2015 has issued revised guidelines by suppression of the guideline issued vide F. No. 11-362/2012-FC, dated 01.02.2013. AS per these revised guidelines, in case of existing mining leases in part or in full, where approval under Section 2 of FC Act for a part of the forest land has only been obtained, Central Government accorded general approval under Section 2(iii) of the FC Act for the remaining area of the forest land falling within such mining leases and directed State Governments to realize NPV from the user agency within a period of one year from the date of issue of this letter for entire forest land falling in the mining lease, in case NPV of such forest land has not already been realized. Subsequently, MoEF&CC vide guidelines dated 31.03.2016, extended the deadline for payment of NPV up to 30.09.2016. NPV amount of Rs. 91,74,32,187/- (Rupees Ninety-one crore seventy-four lakh thirty-two thousand one hundred eighty-seven) was deposited on 22.10.2019 through RTGS by UTR

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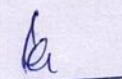
Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>no. SBINR52019102200122381 in Jharkhand CAMPA fund for the balance forest area 879.609 ha of amalgamated lease of Kiriburu-Meghahatuburu Iron Ore Mines under protest without prejudice to its right and contentions in Writ Petition WP(C) No. 5695 of 2016.</p> <ul style="list-style-type: none"> As per the demand raised by DFO, Saranda on dated 05/07/2022 vide letter no- 1466, Kiriburu- Meghahatuburu Iron Ore Mines of M/s SAIL-BSL has deposited Differential NPV amount of Rs. 13,68,15,525/- (Rupees Thirteen Crore Sixty-Eight Lakh Fifteen Thousand Five Hundred Twenty-Five Only) For the 247.5 Ha (Area for which Stage-1 FC has granted and Stage-2 FC is still Awaited) through e- portal (PARIVESH PORTAL) of MoEF&CC, GOJ vide UTR no- SBIN322193928533 dated 12/07/2022. <p><u>ANNEXURE 1- PAYMENT RECIEPT OF NPV PAID TOWARDS CAMPA FUND</u></p>
(iv)	The project proponent shall complete all the tasks as per the action plan submitted with budgetary provisions during the public hearing held on 24.11.2012. Major issues raised during public hearing were related to employment of tribal villagers on priority basis, financial assistance to village women so that they can be self-employed, clean water availability, construction of a bridge over Koina River at Kumdi village, environmental protection measures, construction of Pucca road for villagers and repair of roads in the region.	<ul style="list-style-type: none"> Kiriburu-Meghahatuburu Iron Ore Mines have taken up the task for engaging tribal from local villages through 4 nos. of registered Co-operative Labour Societies at mines. The Self Employment Centers i.e., KIRAN at Kiriburu and "SOUBHAGYA" at Meghahatuburu have expanded its coverage and marketing tie-ups with other units of SAIL and Jharcraft to make the market sustainability of products manufactured. <p><u>ANNEXURE 2- PHOTOGRAPHS OF SELF EMPLOYMENT CENTER AT KIOM & MIOM, SAIL</u></p> <p><u>For MIOM -</u></p> <p>10 nos. of students for 2021-23 (2 years) & 10 nos. of students for 2022-24 (2 years) from MIOM have been sponsored for ITI course to ITI, Rourkela (Cost to company/Expenditure- Rs.45000/ per student per year- valuing Rs. 10 Lakhs/year; Costing Rs 5 Lakhs in six months for MIOM including transportation arrangements).</p>

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p><u>For KIOM-</u></p> <ul style="list-style-type: none"> 10 nos. of students for 2021-23 (2 years) & 10 nos. of students for 2022-24 (2 years) from KIOM have been sponsored for ITI course to ITI, Rourkela (Cost to company/Expenditure-Rs.45000/ per student per year- valuing Rs.9 Lakh/year; Costing Rs 4.5 Lakh in six months for KIOM). For clean drinking water, tube wells with hand pumps & water treatment plant at Kiriburu Hilltop have been provided in the surrounding villages- <p><u>ANNEXURE 3- CLEAN RO DRINKING WATER, HAND PUMPS HAVE BEEN PROVIDED AT THE SURROUNDING VILLAGES BY KIOM & MIOM, SAIL</u></p> <ul style="list-style-type: none"> Bridge over Koina river at Kumdi Village has already been constructed by KIOM-MIOM. <p><u>ANNEXURE 4- BRIDGE OVER KOINA RIVER AT KUMDIH VILLAGE HAS BEEN CONSTRUCTED BY KIOM-MIOM, SAIL</u></p>
(v)	The Project proponent shall obtain necessary prior permission of the competent authority for drawl of requisite quantity of surface water and ground water for the project.	<ul style="list-style-type: none"> Kiriburu-Meghahatuburu Iron Ore Mines are using only surface water for domestic & industrial purposes. \ Permission exists for water drawl from Karo River. Water drawl permission from River Koina has been obtained from Water Resource Deptt. Government of Jharkhand dated 20.09.2017 Letter No.- 2/PMC/WS-549/2017-448. Water drawl` agreement signed between SAIL and Govt. of Jharkhand. Renewal for Water Drawl permission from River Koina has already been applied to Water Resource Department Government of Jharkhand vide Dated 26/04/2022 <p><u>ANNEXURE 5- WATER AGREEMENT BETWEEN KIOM-MIOM, SAIL & WATER RESOURCE DEPARTMENT, GOVT. OF JHARKHAND</u></p>

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Cond. No.	Condition Stipulated	Compliance Status as on September 2022
(vi)	Implementation of the site-specific conservation plan for the core & buffer zone and Integrated Wild Life conservation plan which is being prepared by the Dept. of Forest, Govt of Jharkhand. Abiding the guidelines of this Integrated Wild Life Conservation Plan and accordingly contribute proportionately in the preparation and implementation of the Plan.	<p>As per prevailing practice of the state forest department a scheme for Protection & Conservation of Forest and Wild life habitat including Anti-Depredation measures and Eco-development activities for villagers for a period of ten years in the district of Singhbhum (West) and applicable for Kiriburu-Meghahatuburu group of Mines was prepared by Chief Wildlife Warden, Govt. of Jharkhand.</p> <ul style="list-style-type: none"> For the implementation of the above scheme for Kiriburu-Meghahatuburu mines, SAIL has deposited an amount of Rs. 6,21, 44,836.00 as per demand raised by Divisional Forest Officer, Saranda Forest Division. Integrated Wildlife Management Plan for West Singhbhum District was prepared by an Expert Committee constituted by the Govt. of Jharkhand vide notification dated 27.08.2011. As per the notification constituting the committee, SAIL was assigned responsibility for institutionalizing and funding the study. The said Plan is completed in respect and is ready for implementation by the Jharkhand State Forest Dept. In this regard, SAIL has already submitted an undertaking to abide by the guidelines and contribute funds for the implementation of Integrated Wildlife Management Plan in entire lease hold area, on pro rata basis. In addition to the above, a consultant has been engaged for preparation of Site-Specific Wildlife and Biodiversity Conservation plan for Amalgamated Lease of Kiriburu-Meghahatuburu Iron Ore Mines. <i>The site-specific wildlife & biodiversity conservation plan has been approved by PCCF (Wildlife cum Chief Wildlife Warden), GOJ dated 25/01/2022 vide Office Order No-17 for total financial involvement of 5996.244 Lakhs (Chapter-4 - 4542.402 Lakhs, Chapter-5- 1453.842 Lakhs) & Copy for the approval order has been sent to M/s</i>

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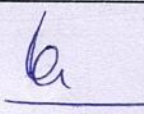
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		<p>SAIL on the same date vide Memo No- 88.</p> <ul style="list-style-type: none"> In the Site-Specific Wildlife and Biodiversity Conservation Plan various measures have been proposed such as- <ul style="list-style-type: none"> I. WILDLIFE HABITAT PROTECTION AND DEVELOPMENT II. FOREST LANDSCAPE RESTORATION (FLR) III. ELEPHANT CORRIDOR MANAGEMENT IV. IMPROVEMENT OF WATER REGIME AND ITS MAINTAINANCE V. MITIGATION STRUCTURES FOR TREE DWELLING AND HERPETOFAUNA SPECIES VI. MEASURES FOR ANTI-DEPREDATION AND WILDLIFE PROTECTION VII. FIRE PREVENTION AND PROTECTION OF HABITAT VIII. CAPACITY BUILDING AND LIVELIHOOD IMPROVEMENT TO LOCAL PEOPLE IX. CAPACITY BUILDING TO FOREST DEPARTMENT FOR MONITORING AND SUPERVISION OF SITE SPECIFIC PLAN X. BIODIVERSITY ASSESSMENT & ANIMAL CENSUS ACTIVITIES XI. AWARENESS PROMOTION XII. CORPUS FUND XIII. CONTINGENCIES All of these suggested measures were proposed in the Two Chapters 4 & 5 , In Chapter 4, The works shall be done by Project Authority (SAIL) , & In Chapter-5, The Works shall be done by the Forest Department, for which the proposed financial involvement under Chapter 5 has already been paid through the DD NO 443780 dated. 31.03.2022 of an Amount of Rs. 1453.482 Lakhs in favor of Divisional Forest Officer, Saranda Forest Division payable at Chaibasa.

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		<ul style="list-style-type: none"> SAIL Authority is under process for the start of works proposed under Chapter-4, Annual Plan for Operation for the year 1 has been submitted to DFO, Saranda. All the measures suggested will be implemented at the project cost. It is undertaken that a copy of the action plan will be submitted to the MOEF&CC and its Regional office. <p><u>ANNEXURE 6- APPROVAL LETTER, PAYMENT DETAILS FOR CHAPTER-5 FOR SITE- SPECIFIC WILDLIFE AND BIODIVERSITY CONSERVATION PLAN FOR KIRIBURU- MEGHAHATUBURU IRON ORE MINES</u></p>
(vii)	The Mining operation shall be restricted to above ground water table and it should not intersect ground water table. In case of working below ground water table, prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	<ul style="list-style-type: none"> Water table level at Kiriburu – Meghahatuburu mining lease area is in the range of 537 m AMSL and present working depths at Kiriburu and Meghahatuburu Mines are 750 m above MSL and 760 m above MSL respectively. Hence there is no interference of Mine workings with the ground water table. Due to any reason if it is required to work below the groundwater table, prior approval of the Ministry of Environment, Forest & Climate Change and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study will be carried out.
(viii)	The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also be done regularly. Vehicles with PUC only will be allowed to ply. The mineral transportation shall be carried out through trucks only and the vehicles carrying the mineral shall not be overloaded. Project should obtain 'PUC' certificate from all the vehicles from authorized pollution testing center.	<ul style="list-style-type: none"> Ore transportation through closed conveyers within the leasehold area at the Ore Processing Plant and final dispatch to Steel Plants through rakes has been adopted to minimize the pollution from the transportation of ore. Photographs showing the covered. <p><u>ANNEXURE 7- PHOTOGRAPHS SHOWING THE COVERED CONVEYOR TRANSPORTING IRON ORE AT KIOM-MIOM, SAIL</u></p> <ul style="list-style-type: none"> Transportation of ore from mine face to ore processing plant is being done by high capacity (9.5 Cu.M) Shovel- (100 T) Dumper combination

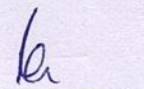
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		<p>to reduce nos. of vehicle plying and thus reduce generation of dust through Mine haul roads.</p> <ul style="list-style-type: none"> • 28 KL High Pressure Water Sprinklers are being used for effectively controlling haul road dust emission at the both the mines. • All these vehicles are being maintained in good condition to control vehicular emissions. PUC certificate has been obtained from authorized Pollution testing center for different categories of Vehicle running within the lease. • Moreover, permanent Water sprinkling arrangement in haul road installed is being operated. • Dry Fog Dust Suppression System has been installed at Hopper and Crushing Unit in Mineral Separation Plant. <p><u>ANNEXURE 8- PHOTOGRAPH SHOWING THE DUST SUPPRESSION THROUGH WATER SPRINKLERS AND DRY FOG DUST SUPPRESSION SYSTEM AT KIOM-MIOM, SAIL</u></p>
(ix)	Plantation on the OB dump slopes has to be increased and manage properly. House- keeping should be improved in processing area.	<ul style="list-style-type: none"> • During April 2022 to September 2022, , 6700 nos. of saplings were planted and maintained on OB dump, Backfilled area and lease area & watered regularly in collaboration with IFP Ranchi . To prevent soil erosion and effective plantation over the dump slopes. • Housekeeping at the ore processing plants have been improved at both the mines through adoption of regular cleaning of spillages at various points, timely repair & maintenance of rollers / conveyer belts, awareness training on housekeeping practices, etc. • 2 No. of MoUs have been signed between SAIL, RMD Kiriburu Iron Ore Mine and Meghahatuburu Iron Ore Mine for the Eco-Restoration of backfilled mine pits on both the mines. • Total project cost will be 99.34 Lakhs for Meghahatuburu Iron Ore Mine for 8.5 Ha of backfilled area. • For Kiriburu Iron Ore Mine: Area of Eco-

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>Restoration will be 10 Ha, The IFP will provide technology and services along with the expenditure of restoration as per the All India Coordinated Research Project (AICRP) "Combating Desertification by Enhancing Vegetation Cover & People Livelihood in Degraded Dry Lands & Deserts of India" under objective "Restoration of Mine, degraded hills, hill slopes, sand dunes, ravines and saline areas through introduction of new genotypes/ varieties/ species and natural resources conservation in different landscapes".</p> <ul style="list-style-type: none"> A team of 6 Officials of Forest Ecology & Climate Change Division, Institute of Forest Productivity, Ranchi visited the Kiriburu Iron Ore Mines during 23/06/2021- 25/06/2021 regarding the preparatory work for Rehabilitation of slopes in the coming months of 10 Ha of mined out backfilled area. A team of officers of E&L, Mining & Survey Department from Kiriburu Iron Ore Mine was also deployed for necessary co-ordination with the officials of IFP, Ranchi. For aforementioned purpose, team of officials visited & surveyed the backfilled area situated at Hill-1 of Kiriburu mine pit. They have selected and measured the slope of backfilled area near already planted area for the plantation purposes. Various activities have been planned like ploughing of Trenches & Digging of Pits for plantation and soil erosion control purposes and plantation on slopes during July 2021. Planning for irrigation water was also done in co-ordination with Officials of IFP, Ranchi & KIOM, Sail. Officials of IFP, Ranchi also requested for leveling of top surface portion of backfilled area, so that the plantation activities for next year will be smoothen. A team of 3 Officials of Forest Ecology & Climate Change Division, Institute of Forest Productivity, Ranchi along with 2 Technical Field Staffs visited the Kiriburu Iron Ore Mines during 26/07/2021- 27/07/2021 regarding the Plantation of Plant Saplings for Rehabilitation of slopes for 10 Ha of mined out backfilled area. A team of officers of E&L, Mining & Survey Department from Kiriburu

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		<p>Iron Ore Mine was also deployed for necessary co-ordination with the officials of IFP, Ranchi.</p> <ul style="list-style-type: none">394 No of plant sapling have been planted on the sloped of 10ha of mined out backfilled area. Apart from this, 39 existing plants have been replaced by the officials of IFP, Ranchi which was having mortality. <p>Details of Plant species planted are as follows: -</p> <table><tr><th>Local Name of Plant</th><th>Scientific Names</th></tr><tr><td>गुलमोहर</td><td>Delonix regia</td></tr><tr><td>बकाइन</td><td>Melia azedarach</td></tr><tr><td>आकाशमनी</td><td>Acacia auriculiformis</td></tr><tr><td>कांटा बाँस</td><td>Bambusa bamboos</td></tr><tr><td>Hadge बांस</td><td>Bambusa multiplex</td></tr><tr><td>कागज़ फूल</td><td>Bougainvillea</td></tr><tr><td>Agave</td><td>Agave</td></tr></table> <ul style="list-style-type: none">In MIOM- Nursery area has been finalized as well as design has been finalized. Layout of design in the site has been done and preparation of platforms, agro shed net and irrigation channels are under process and will be completed within this financial year.Grass seedlings of vetiver species and lemon grass have been prepared. Seed sowing of screened species will be carried out in April,2022 in the nursery at Meghahatuburu.IFP Ranchi, planted 6700 Plant Species on the backfilled Area levelled by Kiriburu Iron Ore Mines in the Month of July on 7 Ha of Land. <p><u>ANNEXURE 9- PHOTOGRAPH SHOWING PLANTATION AT VARIOUS LOCATIONS OF MINES, TOWNSHIP & COIR MATTING & COPY OF MOU SIGNED BETWEEN RMD, SAIL KIOM & IFP RANCHI FOR ECO-RESTORATION ON MINED OUT AREA KIOM-MIOM, SAIL</u></p>	Local Name of Plant	Scientific Names	गुलमोहर	Delonix regia	बकाइन	Melia azedarach	आकाशमनी	Acacia auriculiformis	कांटा बाँस	Bambusa bamboos	Hadge बांस	Bambusa multiplex	कागज़ फूल	Bougainvillea	Agave	Agave
Local Name of Plant	Scientific Names																	
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कागज़ फूल	Bougainvillea																	
Agave	Agave																	
(x)	There are about 850 households in the	<ul style="list-style-type: none">Presently Oxidation ponds for treatment of the																



Cond. No.	Condition Stipulated	Compliance Status as on September 2022
	township for both MIOM and KIOM mines. A full-fledged sewage treatment plant should be set up by the project in the colony. The oil & grease trap at the workshop at both the mines should have a covered shed. A separate pit should be constructed to retain the treated water which should be reused for washing purpose instead of discharging into natural course.	<p>sewerage from the township of MIOM and KIOM colonies have been provided.</p> <ul style="list-style-type: none"> Further Installation of full-fledged Sewage Treatment Plants covering both MIOM and KIOM is under progress. Formwork Erection, Reinforcement Fixing & other Concreting works have been completed. <p><u>ANNEXURE 10- WORK ORDER COPY FOR CONSTRUCTION OF 3 NUMBER OF SEWAGE TREATMENT PLANTS FOR TOWNSHIP HOUSEHOLDS AT KIOM-MIOM, SAIL.</u></p> <ul style="list-style-type: none"> ETPs consisting oil & grease traps have been provided to arrest oil from the workshop effluents. These ETP areas have been covered with sheds. The treated effluent from these ETPs is being collected and used for plantation / dust suppression at haul roads. <p><u>ANNEXURE 11- EFFLUENT TREATMENT & DISPOSAL FACILITY FOR USED OIL AT KIOM-MIOM, SAIL</u></p>
(xi)	Project shall identify the causes for the higher particulate matter and take appropriate mitigative measures. Project shall start monitoring PM2.5.	<ul style="list-style-type: none"> All the dust generating sources have been identified at both Kiriburu and Meghahatuburu Mines. The existing dust control measures at these dust prone areas have been augmented for controlling the fugitive dust emissions. The following measures have been augmented for controlling fugitive dust emissions: <ul style="list-style-type: none"> ➤ Dry fog dust suppression systems at ore unloading hoppers have been revamped through replacing nozzles. ➤ Additional dry-fog dust suppression systems have been provided at transfer points and screening areas. ➤ Wet drilling facilities with the Drill Machines have been revamped. ➤ Increased frequency of Haul Road Sprinkling based on the weather conditions. ➤ Additional permanent water sprinkling arrangement

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>has also been provided in permanent haul roads of Mines near hopper to reduce fugitive dust.</p> <ul style="list-style-type: none"> In addition to the above, new dust suppression systems at Tertiary Crushers, Screens, ore handling areas, etc., are under progress at both Kiriburu and Meghahatuburu mines. Monitoring PM2.5 in ambient air has already been started. The PM2.5 in the Ambient Air Ranges from- KIOM-MIOM- 32 to 43 ug/m³. <p><u>ANNEXURE 8- PHOTOGRAPH SHOWING THE DUST SUPPRESSION THROUGH WATER SPRINKLERS AND DRY FOG DUST SUPPRESSION SYSTEM AT KIOM-MIOM, SAIL.</u></p>
(xii)	Project should ensure that all the workers wear safety devices.	<ul style="list-style-type: none"> Safety device like Safety Shoe, certified helmet & ear muff etc. are provided to all workers making the workplace safe includes providing instructions, procedures, training and supervision to encourage people to work safely and responsibly. Wearing safety devices including personal protective equipment's (PPEs) for all the workmen is being ensured. Necessary instructions have also been displayed at prominent areas in the mines. All the Head of the Departments (HODs) have been instructed to ensure wearing of safety devices by workmen in their respective departments. The same is being reviewed in the review meetings held on monthly basis. <p><u>ANNEXURE 12- PHOTOGRAPHS SHOWING EMPLOYEES & WORKERS WEARING PERSONAL PROTECTIVE EQUIPMENTS AT KIOM-MIOM, SAIL.</u></p>
(xiii)	The project proponent shall obtain consent to operate from the state pollution control board, Jharkhand and effectively implement all the conditions stipulated therein.	<ul style="list-style-type: none"> Consent to operate (CTO) under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 has been obtained on 24.12.2019 for 16 MTPA capacities vide letter no. JSPCB/HO/RNC/CTO-

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कमलेश राय
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राजगोपाल पन्नीर सेल्वम
RAJAGOPAL PANNIER SELVAM
मुख्य महाप्रबंधक (खान) / CGM (Mines)
मेघाहातुबुरु लौह अयस्क खदान
Meghahatuburu Iron Ore Mines
प. पो. 833223 / Meghahatuburu 833223
बिस्तार-सिंहभूम (प.) जिला / Dist.: Singhbhum (W) Jharkhand

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>5913229/2019/2540 with validity up to 31.12.2024</p> <ul style="list-style-type: none"> Consent to operate (CTO) under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 has been obtained on 07.12.2020 for Tailing Disposal from Meghahatuburu and Kiriburu Iron Ore Mines- 1 MTPA from each within 16 MTPA capacities vide letter no. JSPCB/HO/RNC/CTO-9151117/2020/1890 with validity up to 30.09.2023 <p><u>ANNEXURE 13- COPIES OF CONCENT TO OPERATE (CTO) OF KIOM-MIOM, SAIL</u></p>
(xiv)	Implementation of Environment Management Policy of the company w.r.t. judicious use of Mineral resources for growth & development synchronizing mining and environment with prosperity.	<ul style="list-style-type: none"> SAIL has always been an environmentally conscious and responsible company. In 1996, it was a pioneer in adopting a Corporate Environmental Policy. In view of the rapid technological advancements in the past two decades and growing stringency of regulatory requirements, SAIL has revised its Environmental Policy and made "Corporate Environmental Vision, Policy and Responsibility", which is under implementation. <p><u>ANNEXURE 14- CORPORATE ENVIRONMENTAL VISION, POLICY AND RESPONSIBILITY OF SAIL</u></p> <ul style="list-style-type: none"> For effective implementation of corporate environmental policy, EMS linked with ISO 14001:2015 has been implemented and maintained at both Kiriburu and Meghahatuburu Iron Ore Mines. This has resulted in continual improvement in environmental aspects and helped in conservation of resources. <p><u>ANNEXURE 15- CERTIFICATE OF REGISTRATION FOR ISO 14001:2015 ENVIRONMENT MANAGEMENT SYSTEM OF KIOM & MIOM, SAIL</u></p>
(xv)	There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis in consultation with Regional Director,	<ul style="list-style-type: none"> To augment ground water resources, a huge water pond (Size: 150 m X 100 M) has been made to receive storm water from the township and recharge ground water.

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
	Central Ground Water Board resources in the area in consultation with Central Ground Water Board.	<ul style="list-style-type: none"> The pond is being regularly de-silted before monsoon to maintain capacity. As the mine pits are located at the hill top, all the surface runoff from the mining areas have been diverted to mine pits and stored at bottom most pits, from where it seeps in to the ground. Technical feasibility study of rainwater harvesting cum ground water recharge system development has been done through consultant M/s Think Innovative Solution, Ranchi. The Technical Feasibility Report has been submitted to Central Ground Water Board, Mid-Eastern Region, Patna vide letter No. KIOM/GM/15-16, dated 22.07.2015. The report was reviewed by CGWB and recommended for implementations vide letter No. CGWB/MER/CGWA/2015-840, dated 13.08.2015. Various rainwater harvesting schemes suggested under the Technical Feasibility report are under consideration for implementation. <p><u>ANNEXURE 16- PHOTOGRAPH COVERING ROOF TOP & CATCHMENT POND FOR RAIN WATER HARVESTING SYSTEM OF KIOM- MIOM, SAIL</u></p>
(xvi)	Regular monitoring of ground water table to be carried out at the upstream and depth of water available in the dug well is to be measured. Monitoring to be done by establishing a network of existing wells and constructing new piezometers.	<ul style="list-style-type: none"> 2 nos. of existing Dug Wells located around the mines has been selected for ground water level monitoring. Ground water table levels at the selected wells are being monitored at regular intervals i.e., 4 times in a year. Action is being taken for installing piezometers by establishing network with the existing dug wells.
(xvii)	Monitoring of Ambient Air Quality to be carried out based on the Notification, as amended from time to time by the Central Pollution Control Board.	<ul style="list-style-type: none"> Four (4) ambient air quality monitoring stations at Kiriburu Mines and four (4) more ambient air quality monitoring stations at Meghahatuburu Mines have been established based on the topography and meteorological conditions of the area. Regular ambient air quality monitoring of key

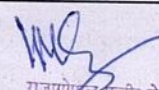
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कमलेश राय
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राजगोपाल पन्नीर सेल्वम
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फोन. मेघाहातुबुरु 833223 / Meghahatuburu 833223
जिला-सिंहभूम (पं.) झारखण्ड / Dist.: Singhbhum (W) Jharkhand



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		parameters to mining industries as per the guidelines of MoEF&CC and CPCB is being done. <u>ANNEXURE 17- AMBIENT AIR QUARTERLY MONITORING REPORT THROUGH JSPCB OF KIOM-MIOM, SAIL</u>
(xviii)	Water Sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emission.	<ul style="list-style-type: none"> • Dry fog dust suppression systems have been provided at the mineral handling plants of both Kiriburu Meghahatuburu Mines. These systems are being operated and maintained. Water spray nozzles have been provided at transfer points / junction houses. • Frequency of haul road water sprinkling through 28 KL high pressure water sprinklers has been increased at both the mines for control of dust emission from haul roads inside leasehold area. • Permanent water sprinkling arrangement has also been provided in permanent haul roads of Mines near hopper to reduce fugitive dust. <u>ANNEXURE 8- PHOTOGRAPH SHOWING THE DUST SUPPRESSION THROUGH WATER SPRINKLERS AND DRY FOG DUST SUPPRESSION SYSTEM AT KIOM-MIOM, SAIL</u>
(xix)	The up-liftment of scheduled caste/schedule tribe population, specific programmes have been taken in to consideration specially with respect to education, health care, livelihood generation, infrastructure development & promotion of sports & culture for SC/ST population and that these will be intensified in future.	<ul style="list-style-type: none"> • The Kiriburu – Meghahatuburu mines are located in economically backward tribal regions. Being fully aware of SAIL's social responsibilities, KIOM - MIOM Mines under Bokaro Steel Plant has taken a giant leap in corporate social responsibility (CSR) by providing Health and Hygiene Improvement, Education, Income generation through self-reliant economic activities, Sports & Entertainment, etc., to improve the quality of life of the scheduled caste / tribe populace living in the villages surrounding the mines. These CSR activities are intensified for further increasing quality of life of tribal population. <p>1. 2nd NTPC National Ranking Archery Tournament (NRAT) at Sareikela-Kharswan, Jharkhand from 2/4/2022 to</p>

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Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>11/4/2022.</p> <p>2. 1st Women national Ranking Round Tournament at TATA Archery Academy ,Jamshedpur from 11/4/2022 to 14/4/2022</p> <p>3. 39th NTPC Sub- Jr National Archery Championship at Neemrana, Alwar, Rajasthan from 14/4/2022 to 23/4/2022</p> <p>4. Miss Gorbari Soy (Sub-Junior) & Miss Anshika Kumari Singh (Junior) in Recurve category won the Bronze Medals in 2nd Khelo India East Zone Archery Championship held at SAI, NCOE, Kolkata on 5/6/2022.</p> <p>5. One of the adopted students of Saranda Suvan Chhatrawaas, Mr. Malu Bahanda has passed class 10th of Jharkhand Academic Council by 57.20% Marks. 2 out of 5 students [Mr. Murum Laguri & Kundan Murti] had passed 12th exam [JAC] securing 60% & 61% respectively. 3 students are appeared for class 12th CBSE Board Exam & their results are awaited.</p> <p>6. Celebration of International Yoga day on 21st June 2022 at Eklavya Archery Academy & Saranda Suvan Chhatrawaas.</p> <p>7. Three of the adopted students of Saranda Suvan Chhatrawaas have passed class 12th of Central Board for Secondary Education 2022. Three students Mr. Poulus Hassa, Mr. Soniya Surin & Mr. Krishna Laguri had passed 12th exam securing 73.6%, 62.8 & 56.4% respectively.</p> <p>8. Three Cadets of Eklavya Archery Academy, Kiriburu have passed their class 10th of Central Board for Secondary Education 2022. Mr. Ronak Lakra, Mr. Gajendra Tuty & Miss. Ashmita Topno have secured 66.8%, 56.40% & 54.80% respectively.</p> <p>9. Miss Anshika Kumari Singh has been selected for Jharkhand Archery Team and will participate in the 36th National Games held at Ahmadabad from 29 Sep - 12 Oct 22..</p>

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कमलेश राय
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RAJAGOPAL PANNEER SELVAM
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मेघाहातुबुरु लोह अयस्क खदान
Meghahatuburu Iron Ore Mines
पि. मेघाहातुबुरु 833223 / Meghahatuburu 833223
बिला-सिंहभूम (व.) झारखण्ड / Dist.: Singhbhum (W) Jharkhand

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>10. The Khelo India (East Zone) Archery Competition was held on 7 August at the Salt Lake Stadium in Kolkata. In this, young archer Shiv Shankar Maiti of Eklavya Archery Academy[EAA], run by SAIL's Kiriburu Mine Management, won the bronze medal in the men's senior category and Anshika Kumari Singh won a silver medal in junior women's section. Their victory has illuminated the name of SAIL and Eklavya Archery Academy</p> <p>11. Miss Anshika Kumari Singh, the cadet of EAA is selected for Junior India National Camp held at SAI, Sonipat from 29th Aug 22 to 12 Sep 202. Mr. Shiv Shankar Maiti and Mr. Chandra Mohan Tiria the cadet of EAA are selected and participated in the Open Assessment Trial [for Training in Korea] held at SAI, Sonipat from 21st Aug 22 to 27th Aug 22.</p> <p>12. Mr Mangal Soy student of class 9th of Project Central School, Kiriburu has the winner of the competition the art cycle of the International Festival "The Planet of Art-2022" organized by the Kazakhstan National Federation of the club UNESCO. Only three winners from India and Mr. Mangal Soy is one of them. Art Teacher of Project Central School, Mrs. Kakoli Das recognized his talent and guided for improvement of their skill.</p> <p>13. The selection process of new students for the Saranda Suvan Chhatrawass and local youth for 2 Year ITI training course was completed through written examination.</p> <p>14. As a part of the celebration of Azadi ka Amrit Mahotsav under the campaign of "Har Ghar Tiranga" Abhiyan, a Prabhat Feri was organized by the Project Central School on 14th Aug 22 where local villagers, employees, Students & Teachers participated. National Flags have been distributed among the villagers of peripheral</p>

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कमलेश राय
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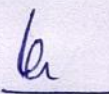
राजगोपाल पन्नीर सेल्वम
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Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>villages.</p> <p>15. Miss Anshika Kumari Singh Cadet of EAA and Mr Rajendra Guiya, Coach of EAA have participated as members of the Jharkhand Archery Team in the 36th National Games held at Ahmadabad from 29 Sep - 12 Oct 22. Hon'ble Minister of Tribal welfare Mr Arjun Mundaji visited at Training Camp on 25th Sep 22, Jamshedpur, and give the best wishes to the Jharkhand Archery Team. He has provided the archery kit to the archers.</p> <p>16. Under the Soft Skill Development Program, training in computer application was provided to the local youth [1st batch consisting of 15 nos youths] for enhancement of their employability at HRDC KIOM from 5.9.22 to 10.9.22.</p> <p>17. KIOM has adopted 19 students of class IX for providing free education up to class 12th from peripheral villages of KIOM-MIOM. All the students will be residing at Saranda Suvan Chhatrawaas. KIOM will provide uniforms, food, private coaching, sports items, etc to the adopted students at Saranda Suvan Chhatrawaas.</p> <p>18. On the Occasion of SAIL day Boarding Hockey Centre, which was inaugurated by Shri R. P selvam, CGM (Mines) under the corporate social responsibility (CSR) programme, MIOM,JGOM,BSL,SAIL for peripheral village boys, girls, youths to facilitate the training from professional coach. They will also be provided with all necessary hockey kits for training along with nutritious diet during training.</p> <p>19. Installation of solar water pumping system in peripheral villages by Meghahatuburu Iron Ore Mines.</p> <ul style="list-style-type: none"> During the April 2022- September 2022, An amount of Rs. 64.04 lakhs (KIOM- Rs 56.47 lakhs and

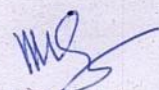
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राजगोपाल पन्नीर सेल्वम
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Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>MIOM- Rs 7.57 lakhs) has been spent under CSR activities by the Kiriburu – Meghahatuburu Iron Ore Mines.</p> <p><u>CSR Details For KIOM: -</u></p> <ul style="list-style-type: none"> Adoption of students for free Education at SSC from peripheral villages.- Rs. 1.609 lakhs Para-teachers [Total 23 Nos.] providing schools in Jharkhand & Odisha-Rs. 7.245 lakhs CSR Education Project Central School (Part Time Teachers Payment)- Rs. 10.148 Lakhs Providing Bus Services for school children from Kiriburu to Karampada- Rs. 1.21 lakhs Providing Bus Services for school children from Kiriburu to Thalkobad via Karampada- Rs. 3.515 lakhs Organizing Medical Camps (Eye,RCH, HIV-ADS, weekly med) and indoor treatment of CSR patients- Rs. 8.139 lakhs Sponsoring the ITI course to the students - Rs. 2.25 lakhs Sponsoring of local youths for short duration skill development training 10 nos. -Rs. 0.0936 lakhs Operation of Eklavya Archery Academy - Rs. 21.163 lakhs Maintenance of CSR installations like SSC, KSEC, EAA etc. Rs. 1.037 lakhs Procurement of National Flag for taking up activities under Har Ghar Tiranga Campaign from 13/08/2022 to 15/08/2022 on the occasion of Independence Day 2022- Rs. 0.0633 lakhs <p><u>CSR Details for MIOM: -</u></p> <ul style="list-style-type: none"> CSR Women Empowerment Saubhagya- Rs. 5.44 Lakhs Organizing Medical Camps (Eye, RCH, HIV – AIDS, weekly med. Check up camp in villages), Exp. for CSR patients in Indoor & OPD- Rs. 0.19 Lakhs Organizing football/ women-hockey

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		<p>competition on local basis and maintenance of fields in villages and providing sports items & kits once in a year- Rs. 0.95 Lakhs</p> <ul style="list-style-type: none"> • Art & Culture, Rural Development- Rs. 0.99 Lakhs • <u>ANNEXURE 18- PHOTOGRAPHS OF VARIOUS CSR ACTIVITIES CONDUCTED BY KIOM-MIOM, SAIL</u>
(xx)	The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations.	<ul style="list-style-type: none"> • No natural watercourse / water resources obstructed due to any mining operation at Kiriburu –Meghahatuburu Iron ore Mines.
(xxi)	The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and It should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with situated native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional office located at Bhubaneswar on six monthly basis.	<ul style="list-style-type: none"> • No top soil is generated from existing operations, as the mines have been in operation since 1960 within the already broken area. However, top soil generated during opening of South and Central blocks shall be stacked separately and will be used for reclamation works. • Top soil generated in future during the expansion of the mine pits to virgin areas, if any, will be stored temporarily at earmarked site and will be used for plantation /dump reclamation. • Presently entire OB generated at both Kiriburu – Meghahatuburu Mines is being used for backfilling of mined out areas. • Total Overburden/ Waste Generated & Backfilled in KIOM- MIOM: - <p><u>For KIOM: -</u></p> <ul style="list-style-type: none"> • For 6 Months (April 2022 to September 2022) : 9,81,334 Te <p><u>For MIOM: -</u></p> <ul style="list-style-type: none"> • For 6 Months (April 2022 to September 2022) : 13,32,122 Te <p>Total OB/ Waste Generated & Backfilled for April 2022 to September 2022 (KIOM+MIOM): 23,13,456 Tones (KIOM)</p> <ul style="list-style-type: none"> • The existing inactive dumps at both Kiriburu Meghahatuburu Mines have already been

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>stabilized through plantation covering an area of 41 ha regular maintenance & watering job is carried out during the period. Geo-textiles have also been used to cover some portion of OB dump slopes for effective stabilization.</p> <ul style="list-style-type: none"> • Apart from this, 20.06 Ha void in the mining pit is been reclaimed with the backfilling. Out of this reclaimed area 10.6 ha area is been fully rehabilitated with plantation on surface & slopes • Six monthly Compliance Status is being submitted to the Ministry of Environment, Forest & Climate Change and its Regional Office located at Ranchi. • 2 No. of MoUs have been signed between SAIL, RMD Kiriburu Iron Ore Mine and Meghahatuburu Iron Ore Mine for the Eco-Restoration of backfilled mine pits on both the mines. • Total project cost will be 99.34 Lakhs for Meghahatuburu Iron Ore Mine for 8.5 Ha of backfilled area. • For Kiriburu Iron Ore Mine: Area of Eco-Restoration will be 10 Ha, The IFP will provide technology and services along with the expenditure of restoration as per the All India Coordinated Research Project (AICRP) "Combating Desertification by Enhancing Vegetation Cover & People Livelihood in Degraded Dry Lands & Deserts of India" under objective "Restoration of Mine, degraded hills, hill slopes, sand dunes, ravines and saline areas through introduction of new genotypes/ varieties/ species and natural resources conservation in different landscapes". • A team of 6 Officials of Forest Ecology & Climate Change Division, Institute of Forest Productivity, Ranchi visited the Kiriburu Iron Ore Mines during 23/06/2021- 25/06/2021 regarding the preparatory work for Rehabilitation of slopes in the coming months of 10 Ha of mined out backfilled area. A team of officers of E&L, Mining & Survey Department from Kiriburu Iron Ore Mine was also deployed for necessary co-ordination with the officials of IFP, Ranchi.

Period: April, 2022 to September, 2022

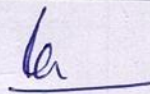
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Cond. No.	Condition Stipulated	Compliance Status as on September 2022																
		<ul style="list-style-type: none">For aforementioned purpose, team of officials visited & surveyed the backfilled area situated at Hill-1 of Kiriburu mine pit. They have selected and measured the slope of backfilled area near already planted area for the plantation purposes. Various activities have been planned like ploughing of Trenches & Digging of Pits for plantation and soil erosion control purposes and plantation on slopes during July 2021. Planning for irrigation water was also done in co-ordination with Officials of IFP, Ranchi & KIOM, Sail. Officials of IFP, Ranchi also requested for leveling of top surface portion of backfilled area, so that the plantation activities for next year will be smoothen.A team of 3 Officials of Forest Ecology & Climate Change Division, Institute of Forest Productivity, Ranchi along with 2 Technical Field Staffs visited the Kiriburu Iron Ore Mines during 26/07/2021-27/07/2021 regarding the Plantation of Plant Saplings for Rehabilitation of slopes for 10 Ha of mined out backfilled area. A team of officers of E&L, Mining & Survey Department from Kiriburu Iron Ore Mine was also deployed for necessary co-ordination with the officials of IFP, Ranchi.394 No of plant sapling have been planted on the sloped of 10ha of mined out backfilled area. Apart from this, 39 existing plants have been replaced by the officials of IFP, Ranchi which was having mortality. <p>Details of Plant species planted are as follows: -</p> <table><tr><th>Local Name of Plant</th><th>Scientific Names</th></tr><tr><td>गुलमोहर</td><td>Delonix regia</td></tr><tr><td>बकाइन</td><td>Melia azedarach</td></tr><tr><td>आकाशमनी</td><td>Acacia auriculiformis</td></tr><tr><td>कांटा बाँस</td><td>Bambusa bamboos</td></tr><tr><td>Hadge बांस</td><td>Bambusa multiplex</td></tr><tr><td>कागज़ फूल</td><td>Bougainvillea</td></tr><tr><td>Agave</td><td>Agave</td></tr></table> <ul style="list-style-type: none">In MIOM- Nursery area has been finalized as well as design has been finalized. Layout of design in	Local Name of Plant	Scientific Names	गुलमोहर	Delonix regia	बकाइन	Melia azedarach	आकाशमनी	Acacia auriculiformis	कांटा बाँस	Bambusa bamboos	Hadge बांस	Bambusa multiplex	कागज़ फूल	Bougainvillea	Agave	Agave
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कमलेश राय
Kamlesh Rai
मुख्य महाप्रबंधक (खान)
CGM (Mines), KIOM



राजगोपाल पन्नीर सेल्वम
RAJAGOPAL PANNEER SELVAM
मुख्य महाप्रबंधक (खान) / CGM (Mines)
मेघाहातुबुरु लोह अयस्क खदान
Meghahatuburu Iron Ore Mines
पो. मेघाहातुबुरु 833223 / Meghahatuburu 833223
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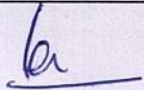
Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>the site has been done and preparation of platforms, agroshadenet and irrigation channels are under process and will be completed within this financial year.</p> <ul style="list-style-type: none"> Grass seedlings of vetiver species and lemon grass have been prepared. Seed sowing of screened species will be carried out in April, 2022 in the nursery at Meghahatuburu. IFP Ranchi, planted 6700 Plant Species on the backfilled Area levelled by Kiriburu Iron Ore Mines in the Month of July on 7 Ha of Land. <p><u>ANNEXURE 09- PHOTOGRAPH SHOWING PLANTATION AT VARIOUS LOCATIONS OF MINES, TOWNSHIP & COIR MATTING & COPY OF MOU SIGNED BETWEEN RMD, SAIL KIOM & IFP RANCHI FOR ECO-RESTORATION ON MINED OUT AREA KIOM-MIOM, SAIL</u></p>
(xxii)	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, road, green belt development etc. the drains shall be regularly de-silted particularly after monsoon and maintained properly. The drains settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years' data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling	<ul style="list-style-type: none"> Catch drains and siltation ponds have been constructed at strategic locations. The drains/sediment ponds/ check dams are cleaned periodically. All OB dumps of the mines are either already stabilized and vegetated or being stabilized by vegetation. Toe walls, garland drains and sedimentation pits were constructed around the OB dumps to control surface runoff. IIT Kharagpur has assessed the need of construction of the additional check dams and sedimentation traps to arrest silt from surface runoffs from mine working and OB dumps. Based on the recommendations of the IIT, 15 nos (7 nos at MIOM & 8nos at KIOM) of boulders check dams have been constructed in consultation with DFO Saranda. Final estimation and report for "Comprehensive Catchment Area Treatment Plan for The Saranda Forest Area Fed by Karo and Koina River System with Specific Measures and Cost Structure for Implementation", has been submitted and being under consideration by the concerned Forest

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
	of silt material. Sedimentation pits shall be constructed at the corners of these garland drains and de-silted at regular intervals.	<p>Department.</p> <ul style="list-style-type: none"> The final Catchment Area Treatment is two volumes <u>VOL 1/2 -COMPREHENSIVE CATCHMENT AREA TREATMENT PLAN FOR THE SARANDA FOREST AREA FED BY KARO AND KOINA RIVER SYSTEM WITH SPECIFIC MEASURES AND COST STRUCTURE FOR IMPLEMENTATION</u> Revised in July, 2021 incorporating LFA, Addendum (Revised Cost Estimate for CAT Structures), Bio-Restoration Measures (Geo-green Erosion Control Blanket) for CAT Plan Implementation & <u>VOL 2/2 - ADDENDUM TO FINAL REPORT ON CATCHMENT AREA TREATMENT PLAN FOR SARANDA FOREST AREA FED BY KARO AND KOINA RIVER SYSTEM WITH SPECIFIC MEASURES AND COST STRUCTURE FOR IMPLEMENTATION</u> Revised in July, 2021 incorporating, Addendum (Revised Cost Estimate for CAT Structures), Bio-Restoration Measures (Geo-green Erosion Control Blanket) for CAT Plan Implementation plan has been submitted to DFO, Saranda on 29/07/2021 vide ref.no- CGM (M)/ MIOM/2021-22/3920. The Catchment Area Treatment (CAT) Plan prepared by Indian Institute of Technology (Kharagpur) in Two Volumes as mentioned in above for Saranda Forest Division has been approved by PCCF, Jharkhand vide Office Order No- 06 Dated 01/02/2022. There are many measures such as Soil Erosion Control Structures (CAT Structures), Bio-Restoration Measures, Bio- Conservation Measures, Eco-Restoration Measures, Infrastructures, have been proposed. Apart from this, for monitoring & implementation of Catchment area treatment plan, there is a provision of dedicated Project Implementation & Monitoring Unit (PIMU). Total financial implication of this project for all Priority-I & Priority-II Mines will be 12286.307 Lakhs. There are four (4) SAIL Mines in Saranda Forest

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कमलेश राय
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CGM (Mines), KIOM



राजागोपाल प्रदीप सेल्वम
RAJAGOPAL PANDI SELVAM
मुख्य महाप्रबंधक (खान) / CGM (Mines)
मेघाहातुबुरु इस्पात अयस्क खदान
Meghahatuburu Iron Ore Mines
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Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>Division (Kiriburu Iron Ore Mines, Meghahatuburu Iron Ore Mines, Gua Ore Mines, Manoharpur Ore Mines). Total financial implication for all 4 SAIL mines in Cat plan will be 4605.093 Lakhs</p> <ul style="list-style-type: none"> De-silting has been carried out at various locations in lease area. Additional Garland drain construction completed. Sump has been provided allowing settling of silt at corner of garland drains. <p><u>ANNEXURE 19- PHOTOGRAPHS SHOWING VARIOUS SILT EROSION CONTROL ARRANGEMENTS CONSTRUCTED BY KIOM-MIOM, SAIL & COPY OF APPROVAL LETTER OF CATCHMENT AREA TREATMENT PLAN FOR SARANDA FOREST DIVISION PREPARED BY IIT KGP FOR KIOM- MIOM, SAIL</u></p>
(xxiii)	Dimension of the retaining wall at the toe of over burden dumps and OB benches within the mine to check run-off and siltation shall be based on the rain fall date.	<ul style="list-style-type: none"> Toe walls, garland drains and siltation pond at the OB Dumps have been constructed to control the surface runoff from the OB dumps. Based on the rainfall of the region, 0.50 m width and 2.0 m height toe walls and 0.50 m width and 0.50 m depth garland drains provided at both the mines.
(xxiv)	Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in the regard.	<ul style="list-style-type: none"> Dry fog dust suppression systems have been provided at the mineral handling plants of both Kiriburu Meghahatuburu mines. Water spray nozzles have been provided at transfer points / junction houses. 28 KL High Pressure Water Sprinklers are regularly deployed for control of dust emission from haul roads inside leasehold area. Permanent water sprinkling arrangements have been provided in permanent haul road of Mines near hopper. All these fugitive dust control measures are being operated and maintained effectively to maintain air quality parameters below the prescribed standards. <p><u>ANNEXURE 20- PHOTOGRAPHS SHOWING</u></p>

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p><u>CONTINUOUS AMBIENT AIR QUALITY MONITORING SYSTEM (CAAQMS) INSTALLED AT MIOM, SAIL</u></p> <p><u>ANNEXURE 8- PHOTOGRAPH SHOWING THE DUST SUPPRESSION THROUGH WATER SPRINKLERS AND DRY FOG DUST SUPPRESSION SYSTEM AT KIOM-MIOM, SAIL</u></p>
(xxv)	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintained.	<ul style="list-style-type: none"> Water flow monitoring at Ghagirathi nallah and Pardih nallah are being carried out on monthly basis and records are being maintained.
(xxvi)	Regular monitoring of water quality upstream and downstream of water bodies viz. Karo River and Koina River shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment and Forests, its Regional office, Bhubaneswar, Central Ground Water Authority, Regional Director, Central Ground Water Board, State pollution Control Board and Central Pollution Control Board.	<ul style="list-style-type: none"> All the natural nallahs originated from leasehold area as well as surface runoff / effluents from the mines are draining to the river Koina, which controls drainage pattern of the area and is located on western side of the leasehold. No discharge from Kiriburu / Meghahatuburu mines is drained to Karo River. Hence, quality of water of Koina River at upstream and downstream of mines is being regularly monitored and reports are being submitted. <p><u>ANNEXURE 21- KOINA RIVER UPSTREAM & DOWNSTREAM WATER QUALITY DATA REPORT FOR THE PERIOD OF APRIL 2022- SEPTEMBER 2022 BY KIOM-MIOM, SAIL.</u></p>
(xxvii)	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 construction new piezometers during the mining operation. The monitoring shall be carried out four times in a year- pre-monsoon (April-May), monsoon (August), post- monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment and Forests and its Regional office, Bhubaneswar, Central Ground	<ul style="list-style-type: none"> 2 nos. of existing Dug Wells located around the mines have been selected for ground water level monitoring. Ground water table levels at the selected wells are being monitored at regular intervals i.e., 4 times in a year. Proposals for installation of piezometers for automatic measurement of ground water levels has been initiated and expected to be installed by December, 2022. <p><u>ANNEXURE 22- GROUND WATER QUALITY REPORT IN DUG WELL FOR APRIL 2022 – SEPTEMBER 2022 BY KIOM-MIOM, SAIL</u></p>

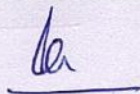
Cond. No.	Condition Stipulated	Compliance Status as on September 2022
	water Authority and Regional Director, Central Ground Water Board.	
(xxviii)	Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures to control of ground vibrations and to arrest fly rocks and boulders should be implemented. Drills shall either be operated with dust extractors or equipped with water injection system.	<ul style="list-style-type: none"> Blasting is carried out in a notified fixed day time only (1.00 PM – 2.00 PM). Controlled blasting with slurry explosives and NONEL detonators is being done to minimize ground vibrations and to arrest fly rocks. Further, TLD & DTH are also used to control ground vibration, fly rock. All the drills at both Kiriburu & Meghahatuburu Mines have been equipped with wet drilling facility to prevent dust generation during drilling. <p><u>ANNEXURE 23- BLASTING VIBRATION REPORT FOR KIOM-MIOM, SAIL</u></p>
(xxix)	Pre- Placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	<ul style="list-style-type: none"> Periodical Medical Examination (PME) of all workmen working in the mines is being done at our Occupational Health Centre once in every five years/three/one year depending on category. Additional PME is also conducted as per the recommendation of Xth & XIth Conference of Safety, DGMS, Dhanbad. During April 2022- September 2022- <p>In KIOM-</p> <p>77 Regular Employees & Executives & 51 Contractual Workers have been Periodical Medically Examined (PME).</p> <p>In MIOM-</p> <p>62 Regular Employees & Executives & 63 Contractual Workers have been Periodical Medically Examined (PME).</p>
(xxx)	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely leopard, elephant etc. spotted in the study area.	<ul style="list-style-type: none"> Integrated Wildlife Management Plan for West Singhbhum District was prepared by an Expert Committee constituted by the Govt. of Jharkhand vide notification dated 27.08.2011. As per the notification constituting the committee, SAIL was

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	Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the state forest and wildlife department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the wildlife conservation plan so prepared specific to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional office, Bhubaneswar.	<p>assigned responsibility for institutionalizing and funding the study. The said Plan is completed in respects and is ready for implementation by the Jharkhand State Forest Dept. In this regard, SAIL has already submitted an undertaking to abide by the guidelines and contribute fund for implementation of Integrated Wildlife Management Plan in entire lease hold area, on pro rata basis.</p> <ul style="list-style-type: none"> In addition to the above, a consultant has been engaged for preparation of Site-Specific Wildlife and Biodiversity Conservation plan for Amalgamated Lease of Kiriburu-Meghahatuburu Iron Ore Mines. The aforementioned consultant has prepared the draft report for site-specific wildlife & biodiversity conservation plan associated with the amalgamated mining lease area of Kiriburu-Meghahatuburu iron ore mines. Draft report has been presented before DFO Saranda on 11/06/2021 which is been provisionally approved with some modification. Again modified report has been presented before RCCF, Jamshedpur on 07/09/2021, where it is been provisionally approved. This plan has been approved by PCCF (Wildlife cum Chief Wildlife Warden), GOJ dated 25/01/2022 vide Office Order No- 17 for total financial involvement of 5996.244 Lakhs (Chapter-4 - 4542.402 Lakhs, Chapter-5- 1453.842 Lakhs) & Copy for the approval order has been sent to M/s SAIL on the same date vide Memo No- 88. In the Site-Specific Wildlife and Biodiversity Conservation Plan various measures have been proposed such as- <ul style="list-style-type: none"> I. WILDLIFE HABITAT PROTECTION AND DEVELOPMENT II. FOREST LANDSCAPE RESTORATION (FLR)

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कमलेश राय
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राजगोपाल पन्नीर सेल्वम
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Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>III. ELEPHANT CORRIDOR MANAGEMENT</p> <p>IV. IMPROVEMENT OF WATER REGIME AND ITS MAINTAINANCE</p> <p>V. MITIGATION STRUCTURES FOR TREE DWELLING AND HERPETOFAUNA SPECIES</p> <p>VI. MEASURES FOR ANTI-DEPREDAATION AND WILDLIFE PROTECTION</p> <p>VII. FIRE PREVENTION AND PROTECTION OF HABITAT</p> <p>VIII. CAPACITY BUILDING AND LIVELIHOOD IMPROVEMENT TO LOCAL PEOPLE</p> <p>IX. CAPACITY BUILDING TO FOREST DEPARTMENT FOR MONITORING AND SUPERVISION OF SITE SPECIFIC PLAN</p> <p>X. BIODIVERSITY ASSESSMENT & ANIMAL CENSUS ACTIVITIES</p> <p>XI. AWARENESS PROMOTION</p> <p>XII. CORPUS FUND</p> <p>XIII. CONTINGENCIES</p> <ul style="list-style-type: none"> All of these suggested measures were proposed in the Two Chapters 4 & 5 , In Chapter 4, The works shall be done by Project Authority (SAIL) , & In Chapter-5, The Works shall be done by the Forest Department, for which the proposed financial involvement under Chapter 5 has already been paid through the DD NO 443780 dated. 31.03.2022 of an Amount of Rs. 1453.482 Lakhs in favor of Divisional Forest Officer, Saranda Forest Division payable at Chaibasa. SAIL Authority is under process for start of works proposed under Chapter-4 All the measures suggested will be implemented at the project cost. It is undertaken that a copy of action plan will be submitted to the MOEF&CC and its Regional office. <p><u>ANNEXURE 6- APPROVAL LETTER, PAYMENT DETAILS FOR CHAPTER-5 FOR SITE- SPECIFIC WILDLIFE AND BIODIVERSITY CONSERVATION</u></p>

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<u>PLAN FOR KIRIBURU- MEGHAHATUBURU IRON ORE MINES</u>
(xxxii)	Provision shall be made for the housing of construction Labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. the housing may be in the form of temporary structures to be removed after the completion of the project.	<ul style="list-style-type: none"> Most of the construction Labour are hired from the local villagers and only few are being hired from outside, for which housing facilities along with necessary infrastructure are being provided at the existing colony of the mines.
(xxxiii)	A Final Mine Closure Plan along with details of corpus fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	<ul style="list-style-type: none"> A Final Mine Closure Plan along with details of the corpus fund will be submitted to MoEF&CC, New Delhi 5 years in advance of final mine closure for approval.

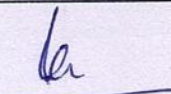
• **Additional Specific Conditions (EC Order Dated 30.07.2020)**

(xxxiii)	PP shall implement all the conditions specified in the EC letter no. J-11015 /272/2007-IA. II (M) dated 23rd September, 2014 and subsequent amendments. Any non-compliance reported by the Regional officer or the Expert Committee, during the site visit, as proposed by the committee, EC may be modified or revoked.	<ul style="list-style-type: none"> All the conditions specified in the EC (General as well as specific) have been implemented and compliance of all the conditions is being incorporated in this EC Compliance.
(xxxiv)	Fines from the tailing dam shall not be excavated during the monsoon period.	<ul style="list-style-type: none"> Excavation & dispatch of fines from tailing dam has not been started yet due to non-issuance of transit permits by Govt. of Jharkhand. However, it is assured that fines from the tailing dam shall not be excavated during the monsoon period in any circumstances.
(xxxv)	Mitigative measures proposed for excavation and transportation of mineral shall be complied with including moist and covered.	<ul style="list-style-type: none"> Excavation & dispatch of fines from tailing dam has not been started yet due to non-issuance of transit permits by Govt. of Jharkhand. However, it is assured that mitigative measures proposed for excavation and transportation of mineral shall be complied with including moist and

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राजगोपाल पन्नीर सेल्वम
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Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		covered.
(xxxvi)	The PP shall monitor the fugitive emissions by installing at least two AAQ monitoring stations along the transportation route.	<ul style="list-style-type: none"> Excavation & dispatch of fines from tailing dam has not been started yet due to non-issuance of transit permits by Govt. of Jharkhand. However, it is assured that before excavation & dispatch of tailings, at least two AAQ monitoring stations along the transportation route shall be installed.
(xxxvii)	The stripping ratio and total excavation for each year shall remain same as approved in the previous EC. Any change in the same is with prior approval of the Ministry.	<ul style="list-style-type: none"> Excavation & dispatch of fines from the tailing dam has not been started yet due to non-issuance of transit permits by Govt. of Jharkhand. However, it is assured that the stripping ratio and total excavation for each year shall remain same as approved in the previous EC.

B. General Conditions

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.	<ul style="list-style-type: none"> Mining is being done as per the approved Mining Plan/ Scheme of Mining approved by Indian Bureau of Mines. There is no change in mining technology and scope of work.
(ii)	No change in the calendar plan including excavation, quantum of mineral iron ore and waste should be made.	<ul style="list-style-type: none"> ❖ ROM production at both the Kiriburu & Meghahatuburu Mines are kept within permitted capacity in the EC / approved Mining Plan. The quantity of ROM Production during the April 2022 to September 2022 is as follows- <ul style="list-style-type: none"> ❖ For KIOM:- ❖ For 6 Months (April 2022 to September 2022) : 18,80,190 Te (ROM) ❖ For MIOM:- ❖ For 6 Months (April 2022 to September 2022) : 18,20,692 Te (ROM) ❖ Total ROM Production for April 2022 to September 2022 (KIOM+MIOM) : 37,00,882 Te (3.700 MT) against EC of 16 MTPA
(iii)	The critical parameters such as PM10 (size	<ul style="list-style-type: none"> Critical parameters i.e., PM10, PM2.5, NOx and

Period: April, 2022 to September, 2022

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Cond. No.	Condition Stipulated	Compliance Status as on September 2022
	less than 10 micro meter), PM 2.5 (size less than 2.5 micro meter), NOx in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further quality of discharged water shall also be monitored [TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a board at the project site at a suitable location near the main gate of company in public domain. The circular No. J-20012/1/2006-IA. II (M), dated: 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	<p>SO₂ in ambient air and relevant parameters in the effluents are being monitored regularly.</p> <p><u>ANNEXURE 20- PHOTOGRAPHS SHOWING CONTINUOUS AMBIENT AIR QUALITY MONITORING SYSTEM (CAAQMS) INSTALLED AT MIOM, SAIL</u></p> <ul style="list-style-type: none"> The monitored data is being displayed in General Offices of both Kiriburu & Meghahatuburu Mines. Copy of EC compliance along with environmental quality data is being uploaded to the company website www.sail.co.in.
(iv)	Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for PM 10, PM 2.5, SO ₂ & NO _x monitoring. Location of the stations should be decided based on the meteorological, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. Data on ambient air quality should be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board/Central Pollution Control Board once in six months.	<ul style="list-style-type: none"> Four (4) ambient air quality monitoring stations at Kiriburu Mines and four (4) more ambient air quality monitoring stations at Meghahatuburu Mines have been established based on the topography and meteorological conditions of the area. <p><u>ANNEXURE 20- PHOTOGRAPHS SHOWING CONTINUOUS AMBIENT AIR QUALITY MONITORING SYSTEM (CAAQMS) INSTALLED AT MIOM, SAIL</u></p> <ul style="list-style-type: none"> Regular ambient air quality monitoring of key parameters (PM₁₀, PM_{2.5}, SO₂ and NO_x) to mining industries as per the guidelines of MoEF&CC and CPCB is being done Ambient air quality monitoring data is being submitted to MoEF&CC, New Delhi and Regional Office, Ranchi along with the compliance reports. Air quality data is also being submitted to Jharkhand State Pollution Control Board and Central Pollution Control Board.

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<u>ANNEXURE 24- AMBIENT AIR QUALITY REPORT FOR THE PERIOD. APRIL 2022 TO SEPTEMBER 2022 FOR KIOM-MIOM, SAIL</u>
(v)	Fugitive dust emission from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	<ul style="list-style-type: none"> Adequate nos. of fugitive dust emission control measures have been provided at the mines. Dry fog dust suppression systems at the mineral handling plants and water sprinklers at haul roads / transfer points have also been provided. These systems are being operated and maintained. Details of major fugitive dust control measures at various main unit operations are as follows: <ul style="list-style-type: none"> ➤ Drilling – Wet drilling is being practiced. ➤ Blasting – Controlled blasting by using slurry explosives & NONEL technology is being followed to control the dust generation during blasting. ➤ Haulage – Haul roads are regularly sprinkled with water by four (Two at each mine) mobile pressurized water sprinklers of 28KL capacity each. Permanent water sprinkling arrangement has also been provided in permanent haul roads of Meghahatuburu Mines near hopper to reduce fugitive dust. ➤ Crushing/Screening– Dry-fog dust suppression systems for unloading, crushing & screening, transfer points have been provided at both the mines. <u>ANNEXURE 8- PHOTOGRAPH SHOWING THE DUST SUPPRESSION THROUGH WATER SPRINKLERS AND DRY FOG DUST SUPPRESSION SYSTEM AT KIOM-MIOM, SAIL</u>
(vi)	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged operations of HEMM, etc. should be provided with ear plugs/muffs.	<ul style="list-style-type: none"> Regular maintenances and periodic checks of the HEMM are being carried out to control noise below 85 dB (A) in the work environment. The operators engaged in blasting/ drilling operations and operator of HEMM are provided with protective earplug/ ear muffs with helmet. Use of these protective measures is ensured by educating the workers on ill effect of the

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
		<p>prolonged excessive exposure to high Noise levels and daily checks by shift mining engineers regarding usage of ear plug/ear muffs.</p> <ul style="list-style-type: none"> Regular noise survey is also carried out by trained technician of OHS & by JSPCB on quarterly in the mines as per mines rules and parameters are found within norms. Measured noise levels at the mines during <u>FOR April 2022- September 2022</u> are within permissible limit below 75 dB(A) KIOM Day Time- 58 dB(A) to 65 dB(A) KIOM DG Set- 71.6 dB(A) to 74.90 dB (A) MIOM Day Time- 54.30 dB(A) to 72.80 dB(A) MIOM Night Time- 54.60 dB(A) to 56.90 dB(A) MIOM DG Set- 84.50 dB(A) <p><u>ANNEXURE 25- NOISE MONITORING THROUGH NABL LABORATORY REGISTERED WITH JSPCB FOR APRIL 2022- SEPTEMBER 2022 FOR KIOM-MIOM, SAIL</u></p>
(vii)	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E), dated: 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	<ul style="list-style-type: none"> ETPs consisting oil & grease traps have been provided at the mines for treating the effluents from garages. The treated water from these ETPs are being used for plantation / dust suppression. Effluents generated from the beneficiation plants are being treated in Thickeners followed by Tailing Ponds. The clear water to the tune of 60% is being recycled and the underflow from thickener is discharged into Tailing Dam. Presently the recirculation facility at the rate of 160 cubic meter/ hr. is carried out as per the requirement of ore processing System for recovery & recycling of clear water from the Tailing Pond is under stabilization at Kiriburu Mines. <p><u>ANNEXURE 26- TAILING DAM WATER QUALITY ASSESSMENT REPORT THROUGH NABL LABORATORY REGISTERED WITH JSPCB FOR THE PERIOD, APRIL 2022 TO SEPTEMBER 2022 FOR</u></p>

Cond. No.	Condition Stipulated	Compliance Status as on September 2022												
		<u>KIOM-MIOM, SAIL</u>												
(viii)	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.	<ul style="list-style-type: none"> Dust masks have been provided to personnel working in dusty areas i.e., drilling, excavation, unloading & loading areas, crushing & screening areas. Training on safety and health aspects is being imparted on regular basis. A full-fledged Occupational Health Centre is run by the mines for regular health surveillance. Use of dust masks is ensured by daily checks by shift in-charges of the respective departments. 												
(ix)	Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	<ul style="list-style-type: none"> Periodical Medical Examination (PME) of all workmen working in the mines is being done at our Occupational Health Centre once in every five years/three/one year depending on category. Additional PME is also conducted as per the recommendation of 10th & 11th conference of Safety, DGMS, Dhanbad. 												
(x)	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	<ul style="list-style-type: none"> Separate Environmental Management Deptt. have been established at both Kiriburu and Meghahatuburu mines and headed by Sr. Officers, who reports directly to the Head of Mines. 												
(xi)	The funds earmarked for environmental protection measures should be kept in separate account and should not be divided for the purpose. Year wise expenditure should be reported to the Ministry and its Regional office located at Bhubaneswar.	<ul style="list-style-type: none"> During April 2022- September 2022- <u>AT KIOM:</u> - <table border="1"> <thead> <tr> <th>S.NO</th><th>Details of Work</th><th>Expend. in Lakhs</th></tr> </thead> <tbody> <tr> <td>1</td><td>Development & maintenance of lake garden & rose garden in Kiriburu Township</td><td>12.64</td></tr> <tr> <td>2</td><td>Maint. & Devt. And up keeping of outside areas and garden of different building of KIOM</td><td>11.75</td></tr> <tr> <td>3</td><td>Collection & disposal of domestic garbage by engaging trolley at township area, KIOM</td><td>8.57</td></tr> </tbody> </table>	S.NO	Details of Work	Expend. in Lakhs	1	Development & maintenance of lake garden & rose garden in Kiriburu Township	12.64	2	Maint. & Devt. And up keeping of outside areas and garden of different building of KIOM	11.75	3	Collection & disposal of domestic garbage by engaging trolley at township area, KIOM	8.57
S.NO	Details of Work	Expend. in Lakhs												
1	Development & maintenance of lake garden & rose garden in Kiriburu Township	12.64												
2	Maint. & Devt. And up keeping of outside areas and garden of different building of KIOM	11.75												
3	Collection & disposal of domestic garbage by engaging trolley at township area, KIOM	8.57												

Cond. No.	Condition Stipulated	Compliance Status as on September 2022			
		4	Collection & disposal of domestic garbage by engaging trolley at hilltop & hutment area of township, KIOM	7.35	
		5	Cleaning of Sankoja Dam	5.34	
		6	Up keeping of different installation, offices including other misc. jobs at hilltop & township KIOM	11.44	
		7	R/c for bush cutting in township & hilltop area of KIOM	1.38	
		8	R/C For cleaning of Ghagirathi Pump	4.39	
		9	Support facility for drinking water supply at Dalmia filter plant at Dalmia and filter plant at Murgapara water reservoir at KIOM	13.53	
		10	R/c for R&M of sewerage line, drain etc. at KIOM	7.75	
		11	R/c for R&M of drinking water supply, sanitary installation work etc. at township & hilltop KIOM	3.93	
		12	General up keeping of township & hutment area	3.70	
		13	Cleaning of sewerage line at township & hilltop, KIOM	11.24	
		14	Mosquito Control operation work at township & inside mining area	6.69	
		15	Cleaning of Sewerage Line Township & Hilltop Area	4.86	
		TOTAL EXPENDITURE IN LAKHS			114.56
		AT MIOM: -			
		S.NO	Details of Work	Expend. in Lakhs	
		1	Maintenance & Upkeep of Nursery/Garden to improve greenery	11.83	
		2	Aesthetic beautification by up keeping of MBR township, garden view point, hospital		
5	Collection & disposal of industrial	15.46			

Period: April, 2022 to September, 2022

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कमलेश राय
Kamlesh Rai
मुख्य महाप्रबंधक (खान)
CGM (Mines), KIOM

6

11/5

राजागोपाल पन्नीर सेल्वम
RAJAGOPAL PANNEER SELVAM
मुख्य महाप्रबंधक (खान) / CGM (Mines)
मेघाहतुबुरु लौह अयस्क खदान
Meghahatuburu Iron Ore Mines
पि. मेघाहतुबुरु 833223 / Meghahatuburu 833223
जिला-सिंहभूम (प.) जलपाईग / Dist.: Singhbhum (W) Jharkhand

Cond. No.	Condition Stipulated	Compliance Status as on September 2022	
			& domestic garbage
		6	Cleaning of Pardih/Kumdih pump house area for water 2.23
		7	Laying & Maintenance of sewerage line in MIOM township 13.41
		8	Implementation of Mosquito Control system(Fogging system)- 3.85
		9	Repair & Maint. of water supply line & minimize water consumption 2.68
		10	RO plants of 1000 ltrs/hr,its maintenance 4.50
		11	Implementation of Permanent Sprinkler System 6.17
		12	Cost Project of IFP, Ranchi from Eco restoration of Waste Dump & Mined Out Area 13.50
		TOTAL EXPENDITURE IN LAKHS	
		73.63	
(xii)	The project authorities should inform to the Regional office located at Bhubaneswar regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	<ul style="list-style-type: none"> The Kiriburu and Meghahatuburu Iron Ore Mines are working mines operating since 1960 and 1985 respectively. Installation of various facilities under the 16 MTPA expansion are under progress. Will be informed in due time after installation of the facilities. 	
(xiii)	The Regional office of the Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional office by furnishing the requisite data/information/monitoring reports.	<ul style="list-style-type: none"> Full co-operation is extended to the officers of the Regional Office, MoEF&CC, Bhubaneswar / Ranchi, by furnishing the requisite data/information / monitoring reports. 	
(xiv)&(xv)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulate environmental safeguards to the Ministry of Environment and Forest, its Regional Office, Bhubaneswar, Central Pollution Control Board and State pollution Control Board.	<ul style="list-style-type: none"> Six monthly compliance reports on the status of implementation of environmental safeguards are being submitted to MoEF&CC, New Delhi, Regional Office – MoEF&CC, Ranchi, Central Pollution Control Board and State Pollution Control Board. Copy of the compliance report including environmental quality data is being uploaded to the SAIL web site i.e., www.sail.co.on. 	

Cond. No.	Condition Stipulated	Compliance Status as on September 2022
(xvi)	A copy of clearance letter will be marked to concerned Panchayat/local NGO, if any, from whom suggestion/representation has been received while processing the proposal.	<ul style="list-style-type: none"> A copy of the environmental clearance letter has already been sent to the Panchayat. The clearance letter has been put on the Company website i.e., www.sail.co.in.
(xvii)	State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collectors office/Tehsildar's office for 30 days.	-
(xviii)	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional office of the Ministry located Bhubaneswar.	<ul style="list-style-type: none"> Advertisement was published in two local newspapers widely circulated, one of which was in the vernacular language (Hindi in Dainik Jagran on 27.09.2014) and other in English (in Telegraph on 27.09.2014) i.e., within stipulated time by informing that the project has been accorded environmental clearance. Further, EC amendment advertisement done in two newspapers on 04.08.2020 (English in Times of India & Hindi in Prabhat Khabar <u>ANNEXURE 27- COPIES OF THE ADVERTISEMENTS MADE IN THE NEWS PAPERS FOR EC OF KIOM-MIOM, SAIL</u> SAIL A copy of the clearance letter was also made available to the State Pollution Control Board and Regional Office of MoEF&CC at Bhubaneshwar.

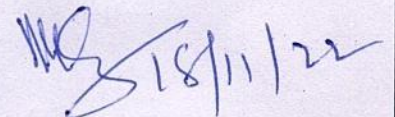


18.11.2022

[KAMLESH RAI]

Chief General Manager (Mines)
Kiriburu Iron Ore Mines
P.O. Meghahatuburu – 833 222
Dist.: Singhbhum (West),
State: - Jharkhand

Period: April, 2022 to September, 2022


[R. P. SELVAM]

Chief General Manager (Mines)
Meghahatuburu Iron Ore Mines
P.O. Meghahatuburu – 833 223
Dist.: Singhbhum (West),
State: - Jharkhand

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कमलेश राय / KAMLESH RAI

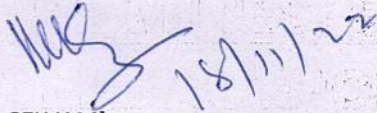
मुख्य महाप्रबंधक (खान)
Chief General Manager (Mines)
कि.लौ.अ.ख., बी.एस.एल, सेल
KIOM, BSL, SAIL

राजागोपाल पन्नीर सेल्वम
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बिला-सिंहभूम (प.) ज़ारखंड / Dist.: Singhbhum (W) Jharkhand

**ANNEXURES: 6 MONTHLY EC
COMPLIANCE APRIL 2022 TO
SEPTEMBER 2022**


FOR

**KIRIBURU- MEGHAHATUBURU IRON
ORE MINES, BOKARO STEEL PLANT,
STEEL AUTHORITY OF INDIA LIMITED**


[R. P. SELVAM]

Chief General Manager (Mines)
Meghahatuburu Iron Ore Mines
P.O. Meghahatuburu – 833 223
Dist.: Singhbhum (West),
State: - Jharkhand

राजागोपाल पन्नीर सेल्वम
RAJAGOPAL PANNEER SELVAM
मुख्य महाप्रबंधक (खान) / CGM (Mines)
मेघाहातुबुरु लोह अयस्क खदान
Meghahatuburu Iron Ore Mines
पो. मेघाहातुबुरु 833223 / Meghahatuburu 833223
जिला-सिंहभूम (प.) झारखण्ड / Dist.: Singhbhum (W) Jharkhand


[KAMLESH RAI]

Chief General Manager (Mines)
Kiriburu Iron Ore Mines
P.O. Kiriburu- 833222
Dist.: Singhbhum (West),
State: - Jharkhand

कमलेश राय / KAMLESH RAI
मुख्य महाप्रबंधक (खान)
Chief General Manager (Mines)
कि.लो.अ.ख., बी.एस.एल, सेल
KIOM, BSL, SAIL

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ANNEXURE 1- PAYMENT RECIEPT OF NPV PAID TOWARDS CAMPA FUND



ভারতীয় স্টেট ব্যাঙ্ক
भारतीय स्टेट बैंक
STATE BANK OF INDIA

22.10.2019

TO WHOMSOEVER IT MAY CONCERN

It is to certify that, as a sum of Rs. **91,74,32,187/- (Rupees Ninety one crore Seventy four lakh thirty two thousand one hundred eighty seven only)** has been transferred on 22.10.2019 from Account No. 30672040728 of SAIL RMD Kolkata vide their request letter dated 22.10.2019 to Account No. 150725879000688 of Corporation Bank, Lodi Complex Branch, New Delhi 110003 of Jharkhand Campa through RTGS UTR No. **SBINR52019102200122381**.

For STATE BANK OF INDIA

Manager (Trade Finance)
CAG Branch (09998), Kolkata

AVISHEK KUMAR BHAGAT
S. S. No.- B-8752



bank.sbi

DGM (033) 2288-8090
AMT-I (033) 2288-9153
AMT-II (033) 2288-9707
AMT-III (033) 2288-8117
AMT-IV (033) 2288-1548
(033) 2288-7037, 2226-3058

বানিজ্যিক গ্রাহক সমূহ শাখা
শ্রীবুদ্ধি ভবন, ৩য় তল
৩৪, জওহরলাল নেহরু রোড
কলকাতা-৭০০ ০৭১
শাখা কোড : ০৯৯৯৮

বাণিজ্যিক গ্রাহক সমূহ শাখা
শ্রীবুদ্ধি ভবন, তিস্রী মঞ্জীল
৩৪, জবাহরলাল নেহরু রোড
কলকাতা - 700 071
শাখা কোড : 09998

Commercial Clients Group Branch
Sribriddhi Bhavan
2nd Floor
34, Jawaharlal Nehru Road
Kolkata - 700 071
Branch Code : 09998

ANNEXURE-1 : A PAYMENT RECIEPT OF NPV PAID TOWARDS CAMPA FUND



स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड
STEEL AUTHORITY OF INDIA LIMITED
रॉ मटेरियल्स डिवीजन
RAW MATERIALS DIVISION



State Bank of India
Corporate Accounts Group Branch
Kolkata (Code.09998)

Date: 22-10-2019

Please remit the sum of Rs. 91,74,32,187/- (Rupees Ninety One crore seventy four lakh thirty two thousand one hundred eighty seven only) as per details below by debiting our account No. 30672040728 for the total amount including your charges.

Name of the beneficiary : JHARKHAND CAMPA

Destination Bank's name & branch: Corporation Bank, Lodhi Complex Branch, New Delhi-110003

IFSC No. CORP0000371

Account No.: 150725879000688

Amount (in words): Rupees Ninety One crore seventy four lakh thirty two thousand one hundred eighty seven only.

Amount (in figures) Rs. 91,74,32,187/-

Charges.

Name of applicant: SAIL RMD KOLKATA

Total

Date of transfer/ cash

Address: 10, CAMAC STREET, KOLKATA-17

Amount:

Tel No.22822176

Scroll No.:

Signature

Reference No.:

परिमल बंसल / PARIMAL BANSAL
उप महाप्रबंधक (वित्त व लेखा)
Dy. General Manager (F&A)
सेल - आर एम डी / SAIL - RMD
700 017

CONDITIONS FOR TRANSFER:

1. All payment Instructions should be carefull checked by the remitter. As credits the proceeds of the remittance is based on the beneficiary's account number, the name of the other bank and its branch being correctly provided, SBI will not be responsible if these particulars are not provided correctly by the remitter.
2. Application/Message received after the business hours will be sent on the immediate next working day.
3. SBI shall not be responsible for any delay in the processing of the payment due to RBI RTGS system NOT being available/failure of internal Communication system at the recipient bank/branch/incorrect information provided by the remitter/Any incorrect credit accorded by the recipient bank/branch due to incorrect information provided by the remitter.
4. (i) Remitting Branch shall not be liable for any loss or damage arising or resulting from delay in transmission delivery or non delivery of electronic message or any mistake, omission or error in transmission or delivery thereof or on encrypting/ decrypting the messages for any cause whatsoever or from the misinterpretation when received or for the action of the destination bank or for any act beyond the control of State Bank of India.
ii) If the recipient branch is closed for any reason, the account shall be credited on the immediate next working day.
(iii) Bank is free to recover charges if any in respect of remittances returned on account of faulty/ inadequate information.
5. I/We have fully read the terms and conditions of the RTGS remittances and shall abide by the same

परिमल बंसल / PARIMAL BANSAL
उप महाप्रबंधक (वित्त व लेखा)
Dy. General Manager (F&A)
सेल - आर एम डी / SAIL - RMD
700 017

परिमल बंसल / PARIMAL BANSAL
उप महाप्रबंधक (वित्त व लेखा)
Dy. General Manager (F&A)
सेल - आर एम डी / SAIL - RMD
700 017

ANNEXURE-1 : B PAYMENT CHALLAN SUBMITTED AT SBI OF NPV PAID TOWARDS CAMPA FUND

AGENCY COPY

यूनियन बैंक Union Bank of India
आंध्र प्रदेश
Rourkela Steel Plant

NEFT / RTGS CHALLAN for CAMPA Funds
Date : 12-07-2022

Agency Name.	Rourkela Steel Plant, Steel Authority of India Limited (SAIL)
Application No.	5879000757
MoEF/SG File No.	NA
Location.	JHARKHAND
Address.	Malla Srinivasu General Manager (Environment & Lease) Central Coordination, Mines 2nd Floor, Project & Modernisation Building Rourkela Steel Plant Steel Authority of India Limited Sundargarh
Amount(in Rs)	136815525/-

Amount in Words : Thirteen Crore Sixty-Eight Lakh Fifteen Thousand Five Hundred and Twenty-Five Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725879000757 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11, CGO Complex, Phase I, Lodhi Road, New Delhi -110003

• This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank of India
आंध्र प्रदेश
Rourkela Steel Plant

NEFT / RTGS CHALLAN for CAMPA Funds
Date : 12-07-2022

Agency Name.	Rourkela Steel Plant, Steel Authority of India Limited (SAIL)
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Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11, CGO Complex, Phase I, Lodhi Road, New Delhi -110003

• This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

After making successful payment, User Agencies may send a line of confirmation through
Email: helpdeskampa@corpbank.co.in

Note: After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date to
Email: cb0371@unionbankofindia.com

Print

Back

ANNEXURE-1 : C PAYMENT OF DIFFERENTIAL NPV FOR 247.50 ha OF KIOM-MIOM

ANNEXURE 2- PHOTOGRAPHS OF SELF EMPLOYMENT CENTER AT KIOM & MIOM, SAIL



ANNEXURE-2: A- STITCHING TRAINING AT SAUBHAGRA SELF-EMPLOYMENT CENTER, MIOM, SAIL



ANNEXURE-2: C- WEAVING TRAINING AT SAUBHAGYA SELF-EMPLOYMENT CENTER UNDER CSR INITIATIVE OF MIOM, SAIL

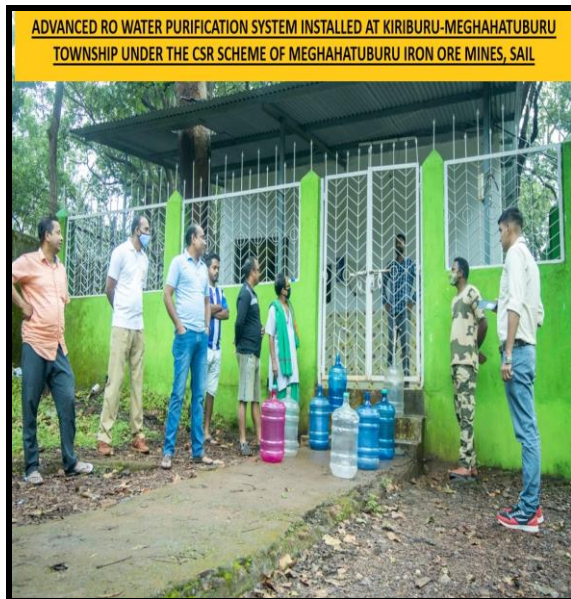


ANNEXURE-2: B- WEAVING TRAINING AT KIRAN SELF-EMPLOYMENT CENTER UNDER CSR INITIATIVE OF KIOM, SAIL

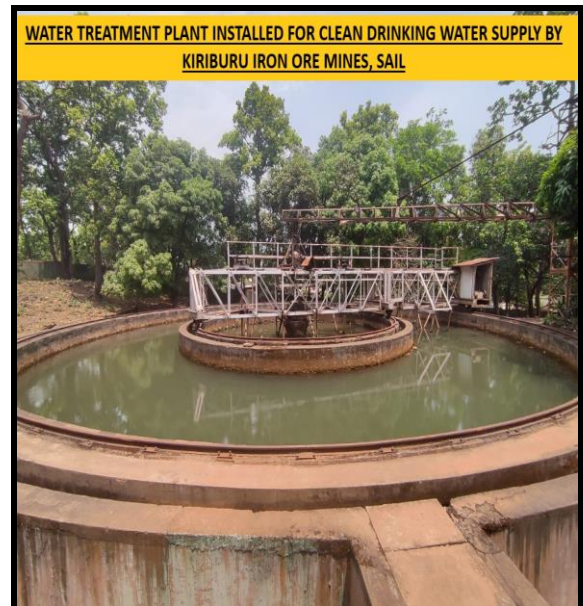


ANNEXURE-2: D- IN-HOUSE MUSHROOM CULTIVATION AT SAUBHAGYA SELF-EMPLOYMENT CENTER UNDER CSR INITIATIVE OF MIOM, SAIL

ANNEXURE 3- CLEAN RO DRINKING WATER, HAND PUMPS HAVE BEEN PROVIDED AT THE SURROUNDING VILLAGES BY KIOM & MIOM, SAIL



ANNEXURE-3: A- ADVANCED RO WATER PURIFICATION SYSTEM INSTALLED AT KIRIBURU-MEGHAHATUBURU TOWNSHIP UNDER THE CSR SCHEME OF MEGHAHATUBURU IRON ORE MINES, SAIL



ANNEXURE-3: C- WATER TREATMENT PLANT INSTALLED FOR CLEAN DRINKING WATER SUPPLY BY KIRIBURU IRON ORE MINES, SAIL

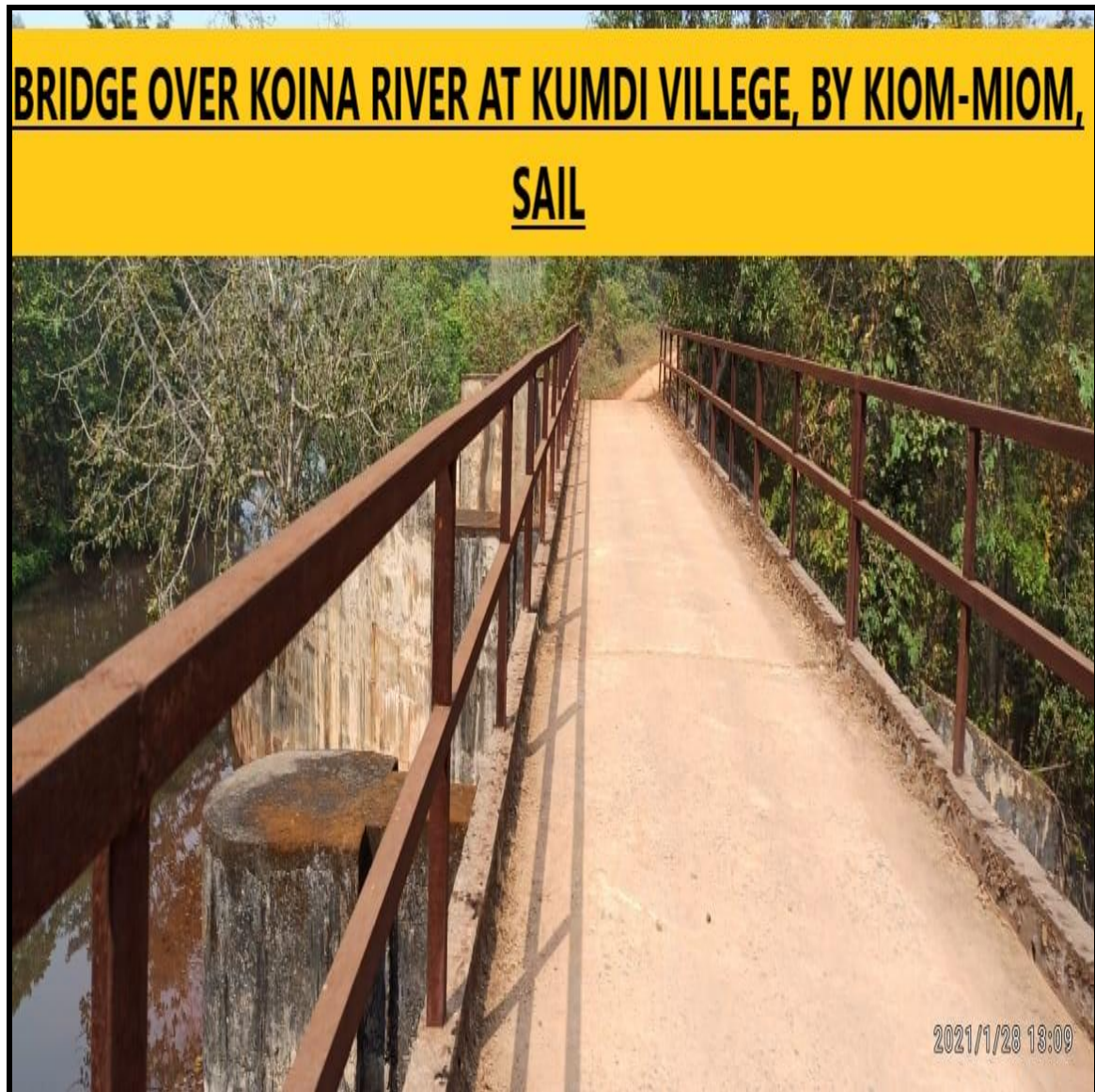


ANNEXURE-3: B- ADVANCED RO WATER PURIFICATION SYSTEM INSTALLED AT KIRIBURU-MEGHAHATUBURU TOWNSHIP UNDER THE CSR SCHEME OF MEGHAHATUBURU IRON ORE MINES, SAIL



ANNEXURE-3: D- PROVISION OF SOLAR WATER PUMP IN KUMDIH VILLETTE UNDER CSR SCHEME OF MIOM, SAIL

ANNEXURE 4- BRIDGE OVER KOINA RIVER AT KUMDIH VILLAGE HAS BEEN CONSTRUCTED BY KIOM-MIOM, SAIL




ANNEXURE-4: A: BRIDGE OVER KOINA RIVER AT KUMDI VILLEGE CONSTRUCTED BY KIOM-MIOM, SAIL

ANNEXURE 5- WATER AGREEMENT BETWEEN KIOM-MIOM, SAIL & WATER RESOURCE DEPARTMENT, GOVT. OF JHARKHAND

WATER AGREEMENT BETWEEN KIOM-MIOM, SAIL & WATER RESOURCE DEPARTMENT, GOVT. OF JHARKHAND- PAGE 1

INDIA NON JUDICIAL
Government of Jharkhand
e-Stamp


सत्यमेव जयते

Certificate No.	: IN-JH07241301892579P
Certificate Issued Date	: 25-Sep-2017 11:46 AM
Account Reference	: NONACC (FI) Jhdopj07/CHAIBASA/ JH-WS
Unique Doc. Reference	: SUBIN-JHJHDOPJ00710387829286144P
Purchased by	: SAIL KIRIBURU
Description of Document	: Article 5 Agreement or memorandum of an Agreement
Property Description	: AGREEMENT
Consideration Price (Rs.)	: 0 (Zero)
First Party	: SAIL KIRIBURU C O MEGHAHATUBURU IRON ORE MINES
Second Party	: WATER RESOURCE DEPARTMENT GOVT OF JHARKHAND
Stamp Duty Paid By	: SAIL KIRIBURU C O MEGHAHATUBURU IRON ORE MINES
Stamp Duty Amount (Rs.)	: 100 (One Hundred only)

Please write or type below this line.....

MODEL AGREEMENT

AGREEMENT FOR WATER SUPPLY FROM KOINA RIVER WHICH IS A TRIBUTARY OF SOUTH KOEL RIVER (NAME OF RIVER) TO KIRIBURU - MEGHAHATUBURU IRON ORE MINES, RMD, STEEL AUTHORITY OF INDIA LIMITED (SAIL)

This agreement made on this 30th day of October, Two thousand Seventeen (2017) between Governor of Jharkhand through Water Resources Department (WRD), Government of Jharkhand herein after referred to as "The Government" which term shall unless excluded by or repugnant to the context, includes its legal representatives,

UP 0003458912

कार्यपालक अभियन्ता
30-10-17

K. VARAJU
Manager (Mines)

1. The authenticity of this Stamp Certificate should be verified at "www.shoils.stamp.com". Any discrepancy in the details on this Certificate and as available on the website renders it invalid.

ANNEXURE-5: A- WATER AGREEMENT BETWEEN KIOM-MIOM, SAIL& WATER RESOURCE DEPARTMENT, GOVT. OF JHARKHAND- PAGE-1

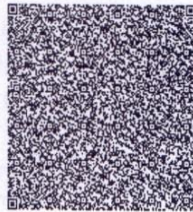


सत्यमेव जयते

INDIA NON JUDICIAL Government of Jharkhand

e-Stamp

Certificate No. : IN-JH07241255495309P
Certificate Issued Date : 25-Sep-2017 11:45 AM
Account Reference : NONACC (FI) / Jhdopic07 / CHAIBASA / JH-WS
Unique Doc. Reference : SUBIN-JHJHDOPJC0710387868643962P
Purchased by : SAIL KIRIBURU
Description of Document : Article 5 Agreement or memorandum of an Agreement
Property Description : AGREEMENT
Consideration Price (Rs.) : 0
(Zero)
First Party : SAIL KIRIBURU C O MEGHAHATUBURU IRON ORE MINES
Second Party : WATER RESOURCE DEPARTMENT GOVT OF JHARKHAND
Stamp Duty Paid By : SAIL KIRIBURU C O MEGHAHATUBURU IRON ORE MINES
Stamp Duty Amount(Rs.) : 100
(One Hundred only)



.....Please write or type below this line.....

successors, executors, administrator & assigners on the one part & Kiriburu Meghahatuburu Iron ore Mines, RMD, Steel Authority of India Limited (SAIL) having its registered & administrative office at Ispat Bhawan, Lodhi Road, New Delhi- 110 003 and works office at Kiriburu Meghahatuburu Iron Ore Mine, Kiriburu, West Singhbhum Jharkhand 833 222 herein after referred to as "The Company" which expression shall unless excluded by or repugnant to the context of the meaning thereof, be deemed to include its successor and assigners and also mean Kiriburu - Meghahatuburu Iron ore Mines, RMD, Steel Authority of India Limited (SAIL) for all transactions & acts.

[Signature]

K. IVARAJU
Statutory Agent/Manager (Mines)

[Signature]
30-10-17
कार्यपालक अभियन्ता
जानपथ प्रमण्डल, चाईबासा

UP 0003458913

1. The authenticity of this Stamp Certificate should be verified at "www.shastamp.com". Any discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the authenticity is on the users of the certificate.
3. In case of any discrepancy please inform the Registrar.

PAGE 3

Whereas the company approached the Government on 28.08.2017 for allowing to Pump 3.326 MCM of water on annual basis in the Koina River which is a tributary of South Koel river at Latitude 22°09' 00" (Degree, Minute, Second) North and Longitude 85°15' 50.29" (Degree, Minute, Second) East for existing Kiriburu-Meghahatuburu Iron Ore Mines & Township and expansion of Mines Capacity to 16 MTPA (Type & capacity of the plant) and whereas the Government is in a position to allow withdrawal of 3.326 MCM on annual basis of water as per the concurrence issued by Water Resource Department (WRD), Government of Jharkhand to Kiriburu - Meghahatuburu Iron ore Mines, RMD, Steel Authority of India Limited (SAIL) vide letter no 2/PMC/WS-549/2017-448 dated 20/09/2017 and the parties hereto have agreed to have a formal agreement in this regard.

Now it is hereby agreed by and between the parties as follows:

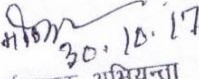
1. That "The Government" agrees to allow 3.326 MCM/Annum withdrawal of required quantity of water as per the details given herein at para 2.1 below :

The water withdrawal schedule for the plant

PERIOD (DD/MM/YYYY)	QUANTITY OF WATER TO BE DRAWN DURING THE YEAR (in MCM)
1.	2.
Nov 17- Oct-18	2.25 MCM
Nov-18- Oct-19	2.50 MCM
Nov-19- Oct-20	2.75 MCM
Nov-20-Oct-21	3.326 MCM
Nov-21-Oct-22	3.326 MCM

- 2.1. The water charges for quantity of water to be drawn by the company will come into effect from the period as indicated in column-1 of the table at para - 2 above.
 - 2.2. The quantity of water to be drawn will be restricted to 3.326 MCM on annual basis) and the measurement of water will be done at the intake point. The measurement of this quantity of water will be checked up jointly by the consumer and the representative of Water resources Department, Govt. of Jharkhand (WRD, GOJ) at least in every month. The measuring instruments shall be installed by the consumer at his own cost and shall remain exclusively under the control of WRD, GOJ.
- A. General condition to be made applicable to any industry under consideration.
- A.1. The availability of water may be interrupted temporarily for doing repairs or for such other works on the basis of jointly signed protocol & such interruption shall not ordinarily exceed thirty days. No claim by the company shall be preferred against the Government for such fluctuation in the discharge.

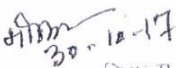

K. IVARAJU
General Manager (Mines),
SAIL, RMD
Kiriburu Iron Ore Mines


30.10.17
कार्यपालक अभियन्ता
जलपथ प्रपण्डल, चाईबासा

PAGE 4

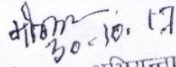
- A.2. The quantity of water indicated in para - 2 is based on the phasing demand of water put up by the company. In future, if it is found by computation as based on scientific methodology or otherwise that the consumption of water is more than as indicated in para -2, charges for such enhanced quantity of water so assessed, shall become payable to Government by the company.
- A.3. The company will install a water meter near the point of intake to measure the quantity of water pumped. If the quantity of water exceeds the quantity mentioned in para -2, the company will have to pay the bill based on actual withdrawal of water as per meter reading, but the minimum water rent for supply of water will be charged for the quantity as indicated at para -2.
- A.4. The company will have to establish online monitoring system of water draw based on latest technology available at its own cost as and when the same will be implemented by WRD, Govt. of Jharkhand.
- A.5. The Government will not be responsible for any interruption or diminution or stoppage of supply of water due to lockout, strikes, breakdowns of mechanical units or other force majeure or other causes beyond the control of the Government. In view of the production technology & need of water supply to some other usage, the Government shall take such action, as is deemed necessary to restore availability of water with the least possible delay & ensure resumption of interruption or diminution or stoppage of water supply within shortest period.
- A.6. If due to any unforeseen reasons, the Govt. is not able to make available the quantity of water as envisaged in para 2, no legal action can be taken against the Govt.
- A.7. The company will make sure that the affluent (waste water along with Pollutants), if needed to be drained in the river or nala, will conform to the latest prescribed affluent quality parameters as prescribed by State Pollution Control Board and shall be safe for disposal in river or nala and shall not be injurious to human and aquatic life. The Water Resources Department as well as authorities specifically authorised in this regard will also get the test checks conducted at regular interval to testify the same. The installation of equipment or plant needed for this purpose, shall be done by the company. The company will also have to get clearance from the respective State Pollution Control Board and submit the report to WRD at regular interval not exceeding one year for continuance of supply of allocated water. The effluent disposal point should be fixed in the upstream of the respective intake point.
- A.8. The company shall make every endeavour to use the minimum possible water and shall make use of all latest technology to reduce the extent of usage of water.
- A.9. That the required water will be withdrawn or pumped by the company from the Right bank of river Koina River which is a tributary of South Koel river by constructing a suitable water harvesting structure and intake near plant site located at Lat 22°09'00" North and Long. 85°15'50.29" East and or through the storage constructed for this purpose by the Company at Lat 22°07'20" N and Long 85°16'50" E & Lat 22°05'05" N and Long 85°15'50" E.


K. IVARAJU
General Manager (Mines),
SAIL, RMD


30.12.17
K. IVARAJU
General Manager (Mines),
SAIL, RMD

- A.10. That the cost of land required for building intake well, pump house, water meter & other allied infrastructure shall be borne by the Company.
- A.11. The Company shall pay water charge at the rate fixed by the WRD, GOJ. from time to time. As and when this rate is revised by the WRD from time to time, the company will be required to make payment at the revised rates of water charge. The rate fixed by the government shall be binding on the company.
- A.12. All the infrastructures including the intake and water harvesting structure **commensurate with the requirement of water as per stipulated in para -2** needed for uninterrupted drawl of water shall be constructed by the company at their own cost, as per the design/drawing approved by the WRD, GOJ. The construction of the infrastructure shall be taken up by company only after joint inspection of the water tapping point by the representatives of WRD, GOJ and the company and approval there on by the WRD, GOJ. This infrastructure shall be operated and maintained by the company at their own cost.
- A.13. That the formal approval of the Government on detailed design, drawing & specification of the **water** harvesting structure, intake well, pump & pump house shall be obtained by the Company within six months from the date of signing of Agreement.
- A.14. The WRD will have the right to inspect the infrastructures from time to time and suggest corrective mechanism for removing the deficiencies, if any. The company will have to undertake the remedial measures, as suggested by WRD, at their own expenses.
- A.15. The company shall have to bear the cost of rehabilitation and resettlement of the families so displaced. The cost of land acquisition, forest land compensation, etc., as per prevailing norms of the Government, shall have to be borne by the company. The company shall also obtain forest, environmental and other mandatory clearances, wherever required from the concerned departments/Ministry of the State Government/Government of India.
- A.16. The company will not be allowed to draw additional water than the committed above without specific permission.
- A.17. The company shall utilize the water for the agreed purpose only and will have no right to sublet this water to any other company.
- A.18. The Govt. will have right to review the quantum of water required by the Company for its bonafide usage, and shall be at liberty to reduce the quantum as allocated in para -2, so as to optimize the usage of water in the interest of the State.
- A.19. The Company has to liaison with the concerned Chief Engineer, WRD to sign an agreement related to the utilisation of allocated water and making payment of the water charge, as per the terms and conditions stipulated under para -A.11 of this agreement. The allocation of water will come into effect from the day of execution of the agreement with the WRD, Jharkhand.
- A.20. The company shall install appropriate devices to minimise water use consumption


K. VARAJU
General Manager (Mines)

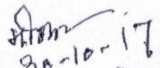

30.10.17
कार्यपालक अभियन्ता
जमशेदपुर डिप्ट. चार्ज बासा
30/10/17

and also provide for recycling & conservation of industrial water.

- A.21. The drawl of water from intake structure, shall under no circumstances be detrimental to the safety and operational procedures of reservoirs/barrages lying in the upstream or downstream or on both sides of the intake structure.
- A.22. The company will have to go for the construction of Rain Water harvesting (RWH) Pond and Pit of appropriate capacity as per the design and plan approved by Ground Water Directorate, Water Resources department (WRD), Government of Jharkhand at his own cost for the conservation of rain water to meet the water demand of the plant during emergency/non-monsoon period and also for ground water recharging commensurate with ground water withdrawn for meeting only the domestic water demand during exigency.
- A.22.1 A comprehensive plan of Rain Water Harvesting Project for ground water recharging must be submitted by the Company to Ground water Directorate of Water Resources Department, Govt. of Jharkhand within two months from the date of signing of Agreement under the intimation to WRD, GOJ. This plan has to get approved by Ground Water Directorate, WRD, GOJ within one month from the date of submission of the above plan.
- A.22.2 Rain Water Harvesting Project for ground water recharging must be completed within three months from the date of approval of the plan.
- A.23. The company will have to construct a reservoir at a suitable location to meet the water requirement of the plant during non-monsoon (November to May) on the basis of the realistic quantum of water availability computed with the help of actual observed hydro-meteorological data from where it has been intended to meet the water demand of the plant. Lean season flow of the river will not be intercepted at all. To ensure this, inlet in the intake well will be provided above lowest water level (LWL) which will be fixed by the concerned Chief Engineer, WRD, after approval of WRD, GOJ.
- A.24. The flood water will be optimally stored and utilized by the installation of a rubber dam/a series of rubber dams or any other suitable techniques for flexible storage at suitable locations across the river (from where the water is to be drawn) by the company at his own cost. The storage planning will be approved by WRD, GOJ.


The designed height of the flexible storage dam will be restored during flood period only by inflating /raising it to store the flood water within the river section and also to store it into some other suitable storages limited to the quantity of water earmarked to the industrial unit. This height of flexible dam will be gradually decreased and finally deflated/lowered fully in accordance with the balance quantity of flood water needed to be stored. However, the height of the flexible storage dam during normal flow of the river will not exceed the upstream level of the river on which the irrigation/municipal/industrial projects have been planned in the downstream. The water levels at different river flows near to the flexible dam site in the upstream will be marked by the Company at his own cost. These marked water levels of the river will be finally checked and approved by the WRD, GoJ.

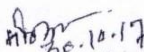

K. KARAJU
General Manager (Mines)
SAIL, JHARKHAND


30-10-17
कार्यवाहीक अतिरिक्त
नियंत्रण विभाग, राईबारा

The Company at his own cost has to remove the silt from the river bed likely to be deposited in the upstream of the rubber dam just after the monsoon each year to ensure no adverse impact on the river regime.

- A.25. A joint review by the representatives of Govt. of Jharkhand and the company shall be made periodically at least once in every three years on the observed industrial water consumption pattern of the unit to assess the possibility and the technological interventions needed for reducing down the quantum of industrial water already earmarked in order to effect the same from the mutually accepted data.
- A.26. That the accounting year shall be from 1st April to 31st March of two consecutive calendar years. The bills for payment of water charges shall be prepared by the government every month on the basis of demand stipulated in para – 2, 2.1& 2.2.
- A.27. The company shall ensure to make payment of the bill within 30 days of its presentation, failing which a penalty at the rate of 10% of the water rate in prevalence as on the concerned date shall be charged over and above the normal rate. If however, any discrepancy or error is found in the bill the same will be intimated to the government within 15 days for necessary rectification, but the payment against the original bill will have to be made within stipulated period. The rectification in the bill, however, will be adjusted in the next accounts and accordingly the next bill be charged from the company.
- A.28. In case of non-payment of water charge for more than two consecutive months by the company, the government shall have the right to stop withdrawal of water from the river by the company.
- A.29. That the date of receipt of the bill or the revised bill, as the case may be at company's office, will be treated as the date of receipt from which date the period of 30 days or 15 days referred to above, would be counted.
- A.30. All disputes and differences, except the matter for which provision has been expressly made in the agreement between the parties arising out of or in connection with this agreement, shall be referred to the Arbitrator, who will be an officer of WRD, Jharkhand and not below the rank of Superintending Engineer & will be nominated by the State Government. There shall be no objection to the appointment of the Arbitrator on the ground that the Arbitrator so appointed, is a State Government servant or that he had to deal with the matters to which this agreement relates to & that in the course of his duties as Government servant, he had expressed views on all or any of the matters in disputes or differences. The provision of the Arbitration and Conciliation Act, 1996 & any statutory modification thereof for the time being in force, shall apply.
- A.31. This agreement shall remain valid for a period of five years. For making a fresh agreement, the company will be required to submit an application to the department 6 months prior to expiry of the existing agreement. The fresh agreement will be executed after reviewing the average actual usage by the


K. IVARAJU
General Manager (Mines),
SAIL, R.D.


06.10.17
कार्यपालक अभियन्ता
जेलपथ प्रमण्डल, चाईबासा
24/10/17

PAGE 8

Company. In case, the average utilisation of water during the last four years have been less by more than 10 %, the company will have to submit the justification to WRD for allocating the earlier quantum of water as envisaged in para-2 or else the WRD will revise the allocation of water.

In case the company do not submit the application to WRD within the stipulated time frame or submit the application after the stipulated time frame without substantiating the justification for the allocation of earlier quantum of water, the WRD will have the right to reduce the water allocation to the average use of water made by the company during the last four years or to the quantity to which the WRD deems fit.

A.32. In case the company violates any of the conditions stipulated in this agreement, WRD, GoJ will be free to take decision regarding termination of the agreement.

B. Specific technical conditions to the industry on case to case basis.

WRD, GOJ will be free to include any specific technical condition/conditions to the industry on case to case basis as and when required and mutually agreed between either parties, in Annexure - A which will be treated as part of this agreement.

In witness whereof, the parties of this agreement have herein put their respective hands & seals, the day and year of agreement first above written.

Signed, seal & delivered on behalf of

(Name of Company) K. IVARAJU
General Manager (Mines),
SAIL, FMD

In presence of Kiriburu Iron Ore Mines:

1. Manoj Kumar 30/10/17
AGM, KIDM, SAIL
2. Pooja Kumar 30/10/17
Mys. (Mn), KIDM
3. R. BISWAS,
30.10.2017
MANAGER (Mining) KIDM, SAIL

Signed, seal & delivered on behalf of

Governor of Jharkhand through Water
Resources Department, Government of
Jharkhand.

In presence of

1. 30/10/17
2. 30/10/17
3. 30/10/17

Specific Technical Conditions to the industry

1. The drawal of water will be done by the company **from the intake point** located at Lat 22°09'00" North and Long. 85°15'50.29" East .from Koina River which is a tributary of South Koel River **and or through the storage** constructed for this purpose by the Company at Lat22°07'20" N and Long 85°16' 50" E & Lat 22°05'05" N and Long 85°15'50" E across Koina river & trinitaries at Karampada RF, Block Noamundi, Dist West Singhbhum.
2. The drawal of water must start as per the schedule indicated in **clause-2 of the agreement.**
3. The schedule of drawal of water must start within **two years** from the date of signing of agreement.
4. In the event of delay in drawal of water as per schedule indicated in clause-2 of the agreement, **the delay will be penalized as below:**

(i) Up to one year delay from schedule mentioned in clause-2 of the agreement.	(i) 25 % of water charges for the quantity of water drawal indicated for the 1st year under column-2 of the table in clause-2 of the agreement.
(ii) Up to two years delay from schedule mentioned in clause-2 of the agreement.	(ii) 50 % of water charges for the quantity of water drawal indicated for the 2nd year under column-2 of the table in clause-2 of the agreement.
(iii) Beyond two years delay from schedule mentioned in clause-2 of the agreement.	(iii) Full water charges for the quantity of water indicated for the 3rd year and onwards under column-2 of the table in clause-2 of the agreement.

5. The schedule of drawal of water will be fixed in such a manner so that the **total quantity of water allocated** must be drawn **within five years** from the starting date of the scheduled water drawal as per clause-2 of the agreement. The quantity of water which cannot be used within five years will be deemed as surrendered and dereserved.

Signed, seal & delivered on behalf of

(Name of Company)

K. IVARAJU
General Manager (Mines)
SAIL
Kiriburu Iron & Steel Mines

Signed, seal & delivered on behalf of
Governor of Jharkhand through Water
Resources Department, Government of
Jharkhand.

STEEL AUTHORITY OF INDIA LIMITED
(Govt. of India Enterprise)
Regd. Office : Ispat Bhawan
Lodi Road, New Delhi- 110003



BOKARO STEEL PLANT
KIRIBURU IRON ORE MINES
P.O. KIRIBURU, DIST. SINGHBHUM (W)
(JHARKHAND) PIN - 833222

Ref: CGM/KIOM/22-23/ 126

Date: 26/04/2022

To
The Executive Engineer
Water-Ways Department
Chaibasa

Subject: Application for renewal of water withdrawal agreement signed between the Govt. of Jharkhand and Kiriburu- Meghahatuburu Iron Ore Mines, RMD, Steel Authority of India Limited (SAIL) from Koina River for its mines and Townships located in West Singhbhum Dist. Jharkhand for the next five years

Ref: Agreement No 3 dated 30.10.2017

Sir,

Inviting kind reference to the subject cited above that Agreement No.- 03 dated 30.10.2017 for water drawl from Koina River for industrial and domestic consumption at Kiriburu- Meghahatuburu Iron Ore Mines located in Distt. - West Singhbhum, Jharkhand is going to expire by 31st Oct 2022.

Currently, the water is being pumped at the rate of 3.326 MCM on annual basis from the Koina River which is a tributary of South Koel River at Latitude 22°09'00" N and Longitude 85°15'50.29" E for existing Kiriburu-Meghahatuburu Iron Ore Mines having the production capacity of 16MTPA & its Township.

Kiriburu-Meghahatuburu Iron Ore Mines is not going for further expansion from the current EC capacity of 16 MTPA and the current water pumping station is not going to be altered in next 5 years. Therefore, the present demand of 3.326 MCM shall be capped for the next 5 years (i.e. 1st Nov 2022 to 31st Oct 2027).

Under compliance with General conditions A.31 of the Agreement, we are hereby submitting the application for the renewal of the agreement for the period of the next five years along with the following documents.

1. Agreement between M/s Kiriburu Meghahatuburu Iron Ore Mines, RMD and WRD, GoJ, dated 30.10.2017.
- *2. Status of Compliance of conditions stipulated in the agreement dated 30.10.2017.

Therefore, we request you to kindly grant the extension of the agreement for the drawl of water from Koina River for Kiriburu- Meghahatuburu Iron Ore Mines, Bokaro Steel Plant, Steel Authority of India Limited (SAIL) for its Mines and Townships located in West Singhbhum

STEEL AUTHORITY OF INDIA LIMITED
(Govt. of India Enterprise)
Regd. Office : Ispat Bhawan
Lodi Road, New Delhi- 110003



BOKARO STEEL PLANT
KIRIBURU IRON ORE MINES
P.O. KIRIBURU, DIST. SINGHBHUM (W)
(JHARKHAND) PIN - 833222

Dist. Jharkhand for the next 5 years (i.e. 1st Nov 2022 to 31st Oct 2027) at the rate of 3.326 MCM on annual basis.

Thanking You.

Yours Faithfully

f
26/04/22

Kamlesh Rai




Chief General Manager (Mines.)
For and on behalf of BSL, SAIL
Kiriburu-Meghahatuburu Iron Ore Mines

Enclosure:

1. Agreement No 03 dated 30.10.2017

ANNEXURE-5 : J- APPLICATION SUBMITTED FOR RENEWAL OF WATER AGREEMENT BETWEEN KIOM-MIOM, SAIL & WATER RESOURCE DEPARTMENT, GOVT. OF JHARKHAND

ANNEXURE 6- APPROVAL LETTER, PAYMENT DETAILS FOR CHAPTER-5 FOR SITE- SPECIFIC WILDLIFE AND BIODIVERSITY CONSERVATION PLAN FOR KIRIBURU- MEGHAHATUBURU IRON ORE MINES

	Office of the Principal Chief Conservator of Forests, Wildlife & Chief Wildlife Warden, Jharkhand. Van Bhawan, Doranda, Ranchi-834002 Email: pccf-wildlife@gov.in; Phone No. 0651-2481744	
Office Order No. <u>17</u>		Dated <u>25/01/2022</u>
<p>Sanction Order of the Site-Specific Wildlife & Biodiversity Conservation Plan prepared in compliance of the Condition laid by the MoEF&CC towards Environmental Clearance to Kiriburu-Meghatuburu Iron Ore Mine (2897.499 ha) of M/s. Steel Authority of India Ltd. in West Singhbhum district of Jharkhand for enhancement in production capacity of iron ore as well as mineral beneficiation capacity.</p> <p>The instant Site-Specific Wildlife & Biodiversity Conservation Plan (referred to as "the Plan" hereinafter) has been prepared by Centre for Envotech and Management Consultancy Pvt. Ltd. on behalf of M/s. Steel Authority of India Ltd. (referred to as "the Project Proponent" or "the PP" "SAIL" hereinafter) in pursuance of the specific condition laid under Item no. A. (xxx) of the letter issued by the Ministry of Environment, Forest & Climate Change (MoEF&CC), Govt. of India, vide No. J-11015/272/2007-IA.II(M) dated 23rd September, 2014, granting Environmental Clearance to Kiriburu-Meghatuburu Iron Ore Mine (2897.499 ha) of M/s. SAIL in West Singhbhum district of Jharkhand for enhancement of iron ore production capacity from 10 MTPA to 16.0 MTPA as well as mineral beneficiation capacity from 10 MTPA to 16.0 MTPA.</p> <p>The aforesaid condition laid by the Central Government reads as follows:</p> <p><i>"A. (xxx) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely leopard, elephant etc. spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the Wildlife Conservation Plan so prepared specific to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office Bhubaneswar".</i></p> <p>It is also relevant to mention here that vide F. No. J-11015/272/2007-IA.II(M) dated 30th July, 2020 the MoEF&CC has accorded the amendment in Environmental Clearance to the proposal of the PP for amalgamated lease (2897.499 ha) under Kiriburu-Meghatubureu Iron Ore Mines of SAIL for change in product mix by including excavation and dispatch of tailings from tailing ponds subject to the condition that the PP shall implement all the conditions specified in the EC letter no. J-11015/272/2007-IA.II(M) dated 23rd September, 2014.</p>		
		Page 1 of 5
<small>D:\pandey\Kiriburu Meghatuburu 25-01-2022</small>		

In the above stated background, the Divisional Forest Officer, Saranda Forest Division vide his Memo No. 2442 dated 01.11.2021 submitted the Plan to the office of the undersigned. While considering the Plan for its approval, an online presentation was arranged by the undersigned on 09.11.2021 through Google meet in which the PP made a power point presentation detailing the components of the prescriptions under the Plan. The meet was attended by concerned forest officials including the RCCF, Jamshedpur and DFO, Saranda as well as the officials from SAIL. It was decided to further improve the plan. Subsequently, RCCF, Jamshedpur vide his letter no. 140 dated 24.01.2021 submitted the modified Plan to the office of the undersigned for its due sanction.

The Plan contains year-wise detailed description of activities and corresponding cost estimates. Chapter 4 and 5 of the Plan delineate the activities to be carried out by the Project Proponent and the Forest Department respectively. For the sake of brevity, the work components to be carried out by the Project Proponent is being designated as Part-A where as Part-B constitutes of the work components to be carried out by the State Forest Department through the DFO, Saranda Forest Division.

The break-up of the financial outlay with respect to the aforesaid implementing agencies is as under:

Designation	Implementing Agency	Budget (Rs. In lakh)
Part A	M/s. SAIL (The Project Proponent)	4542.402
Part B	State Forest Department through DFO, Saranda	1453.842
Total		5996.244

The summary of the proposed interventions (componentwise) under the Plan with the objective of conservation of forest and wildlife resources is as follows:

Sl. No.	Work components	PART A Cost Estimates (Rs. in lakh) – To be implemented by the Project Proponent	Part B Cost Estimates (Rs. in lakh) – To be implemented by the Forest Department through DFO, Saranda	Total (Rs. In lakh)
1.	Wildlife Habitat Protection and Development	130.487	492.10	622.587
	Elephant Corridor Management	-	210.80	210.80

2.	Forest Landscape Restoration	59.60	-	59.60
3.	Improvement of Water Regime and its Maintenance	50.00	261.00	311.00
4.	Mitigation Structures for Tree Dwelling and Herpetofauna species	387.50	-	387.50
5.	Measures for Anti-depredation & wildlife Protection	167.24	247.635	414.875
6.	Fire Prevention and Protection of Habitat	217.668	-	217.668
7.	Capacity Building and Livelihood Improvement of local people	645.30	-	645.30
8.	Capacity Building of the Forest Department for monitoring and supervision of the Plan	1009.44	-	1009.44
10.	Biodiversity Assessment, Animal Census and Research Activities	226.00	-	226.00
11.	Awareness Promotion	792.10	-	792.10
12.	Corpus	60.00	-	60.00
13.	Contingencies	40.00	-	40.00
14.	Total	3785.335	1211.535	4996.870
15.	Cost Escalation @ 20%	757.067	242.307	999.374
16.	Grand Total	4542.402	1453.842	5996.244

The Plan with a total financial outlay of Rs. 5996.244 Lakh extends over a period of 10 years (Year 2021-22 to 2030-31; tentatively) out of which Rs. 4542.402 lakh shall be utilized by the Project Proponent and Rs. 1453.842 lakh shall be utilized by the Forest Department through the DFO, Saranda in accordance with the Plan prescriptions.

Considering the proposals under the plan, sanction is hereby accorded to the instant Plan subject to the following conditions:

- (i) That the Project Proponent shall ensure that its officials/contractors and the work force engaged into mining and allied operations under the Project shall not commit or abet any forest/wildlife offence in their area of operation. They will also promptly report any forest/wildlife offence in the area to the nearest forest office/official.

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Further, they will extend their full cooperation to the forest officials in control/mitigation of any incident, natural or man made, detrimental to forest and wildlife in their area of operation.

- (ii) That the total amount of Rs.5996.244 lakh involved in the instant Plan consists of two parts – Part A and Part B. **Part A constitutes of a sum of Rs. 4542.402 lakh which shall be utilized by the Project Proponent towards the activities mentioned in the Plan as and when, and in the manner as directed by the DFO, Saranda as also under his strict supervision. Part B constitutes of a sum of Rs. 1453.842 lakh which shall be deposited by the Project Proponent into the Government Treasury, Chaibasa in favour of "Divisional Forest Officer, Saranda Forest Division" under the head "Van Preshan Lok Lekha (Praptiyan) Head 8782". DFO, Saranda shall withdraw money from the Treasury for implementation of the activities mentioned in the duly sanctioned Annual Plans of Operation, as described in the following paras, from "8782 Remittance Head" and maintain accounts under "Lok Lekha Head 8443". DFO, Saranda shall submit monthly account to the Accountant General, Jharkhand as per prevailing norms of the Forest Department.**
- (iii) That as regards the funds earmarked against activities to be undertaken by the State Forest Department, the DFO, Saranda shall prepare detailed Annual Plan of Operations (APO) at the beginning of every Financial Year in accordance with the activities mentioned under the Plan following all the rules, regulations, Schedule of Rates etc. issued from time to time by the State Government/ Forest Department. Regional Chief Conservator of Forests, Jamshedpur (RCCF, Jamshedpur) shall accord sanction to the said APO following due process and he/she will closely monitor the implementation/progress of the activities undertaken by the implementing agencies as per directions issued by the Forest Department from time to time.
- (iv) That the Conservator of Forests, Chaibasa Circle (CF, Chaibasa) shall supervise all the activities as per directions issued by the Forest Department from time to time.
- (v) That the DFO, Saranda shall carry out the activities under the Plan strictly as per the duly sanctioned APOs.
- (vi) That the DFO, Saranda shall ensure that no violation of duly sanctioned Working Plan of Saranda Forest Division takes place during implementation of any of the activities involved in this plan over notified and demarcated forest land.
- (vii) That at least one year before the expiry of the instant Plan, the Project Proponent shall formulate and submit to the Forest Department another plan in continuation of

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the instant Plan. The impact of implementation of this Plan shall be evaluated by the competent authority.

(viii) That the instant Plan is dynamic and may be revisited after every 2 years and a revised plan may be formulated as per need of the impact (buffer) area and convenience of the implementing agencies. The revised plan, if any, shall be put up before the Principal Chief Conservator of Forests, Wildlife & Chief Wildlife Warden, Jharkhand for its approval.

(ix) That though provisions have been made towards cost escalation in the plan, yet the Project Proponent shall submit an Undertaking to the DFO, Saranda to the effect that they will deposit extra cost of the Plan beyond the cost escalation provision owing to increase in wage rate, cost of materials etc. in due course of time as well as consequent upon revision of the plan, if any, as and when given effect to by the competent authority.

Sd/-
Principal Chief Conservator of Forests,
Wildlife & Chief Wildlife Warden,
Jharkhand, Ranchi.

Memo No. _____ **Dated:** _____
Copy forwarded to Deputy Director General of Forests (Central), Ministry of Environment, Forests and Climate Change, Integrated Regional Office, Ranchi, Bungalow no. A-2, Shyamali Colony, Ranchi-834002 [E-mail: ro.ranchi-mef@gov.in] for information and necessary action.

Sd/-
Principal Chief Conservator of Forests,
Wildlife & Chief Wildlife Warden,
Jharkhand, Ranchi.

Memo No. _____ **Dated:** _____
Copy forwarded to Additional Chief Secretary, Department of Forests, Environment and Climate Change, Govt. of Jharkhand, Ranchi/ Principal Chief Conservator of Forests, Jharkhand, Ranchi for information.

Sd/-
Principal Chief Conservator of Forests,
Wildlife & Chief Wildlife Warden,
Jharkhand, Ranchi.

Memo No. _____ **Dated:** _____
Copy forwarded to Regional Chief Conservator of Forests, Jamshedpur/Conservator of Forests, Chaibasa Circle/ Divisional Forest Officer, Saranda Forest Division for information and necessary action.

Sd/-
Principal Chief Conservator of Forests,
Wildlife & Chief Wildlife Warden,
Jharkhand, Ranchi.

Memo No. 88 **Dated:** 25/01/2022
Copy forwarded to M/s. Steel Authority of India Ltd., Raw Materials Division, 5th Floor, Industry House, 10, Camac Street, Kolkata-700 017 [E-mail: rmdsail@gmail.com] for information and necessary action.

Sd/-
Principal Chief Conservator of Forests,
Wildlife & Chief Wildlife Warden,
Jharkhand, Ranchi.

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ANNEXURE-6: E- PAGE-5 APPROVAL LETTER FOR SITE- SPECIFIC WILDLIFE AND BIODIVERSITY CONSERVATION PLAN FOR KIRIBURU- MEGHAHATUBURU IRON ORE MINES

जारी करी भारतीय स्टेट बैंक
Issuing Branch: KIRIBURU
कोड नं./CODE No: 01598
Tel No. 06595-707039

मांगद्राफ्ट
DEMAND DRAFT

Key: WIDHOP
Sr. No: 186694

3 1 0 3 2 0 2 2
D O M M Y Y Y Y

मांगे जातेपर DIVISIONAL FOREST OFFICER, SARANDA FOREST DIVISION

ON DEMAND PAY

रुपये RUPEES Fourteen Crore Fifty Three Lakh Forty Eight Thousand Two Hundred Only

OR ORDER

अदा करें ₹ 145348200.00

ICR 000539443780 Key: WIDHOP Sr. No: 186694 AMOUNT: BELOW 145348201 (0/9) मूल्य प्राप्त / VALUE RECEIVED

Name of Applicant STEEL AUTHORITY OF INDIA LIMIT

भारतीय स्टेट बैंक
STATE BANK OF INDIA
उद्धार शाखा / DRAWEE BRANCH: CHAIBASA
कोड नं./CODE No: 00052

कृपया हस्ताक्षर करें
AUTHORISED SIGNATORY

शाखा प्रबंधक
BRANCH MANAGER

कम्प्यूटर द्वारा मुद्रित होने पर ही वैध
VALID ONLY IF COMPUTER PRINTED

केवल 3 महीने के लिए वैध
VALID FOR 3 MONTHS ONLY

KASHI MEGA
SS No.: T-4490

143780 0000020001 000539 16

M. K. Singh
SS No. M-11418

कृपया ध्यान दें: इस द्राफ्ट के सिवाय दो अधिकारियों द्वारा हस्ताक्षरित होने पर ही वैध है।
NOTE: THIS DRAFT IS VALID ONLY IF SIGNED BY TWO OFFICERS

ANNEXURE-6: F-PAYMENT OF FINANCIAL INVOLVEMENT UNDER CHAPTER-5 FOR SITE- SPECIFIC WILDLIFE AND BIODIVERSITY CONSERVATION PLAN FOR KIRIBURU- MEGHAHATUBURU IRON ORE MINES

ANNEXURE 7- PHOTOGRAPHS SHOWING THE COVERED CONVEYOR TRANSPORTING IRON ORE AT KIOM-MIOM, SAIL



ANNEXURE-7: A- PHOTOGRAPHS SHOWING THE COVERED CONVEYOR TRANSPORTING IRON ORE AT KIOM-MIOM, SAIL

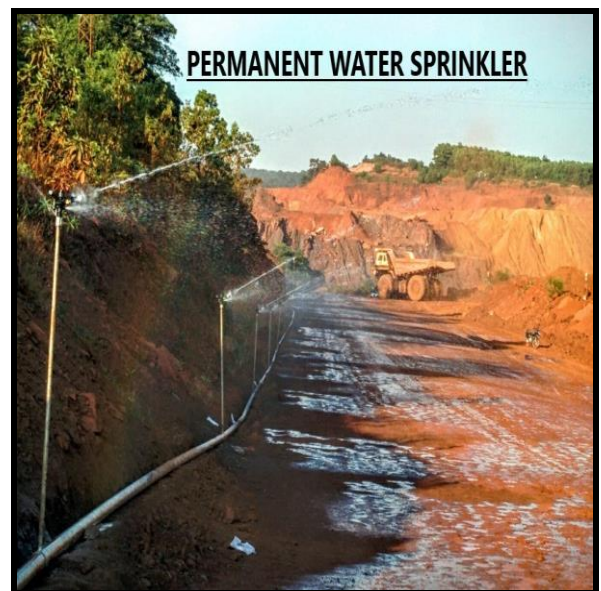


ANNEXURE-7: B- PHOTOGRAPHS SHOWING THE COVERED CONVEYOR TRANSPORTING IRON ORE AT KIOM-MIOM, SAIL

ANNEXURE 8- PHOTOGRAPH SHOWING THE DUST SUPPRESSION THROUGH WATER SPRINKLERS AND DRY FOG DUST SUPPRESSION SYSTEM AT KIOM-MIOM, SAIL



ANNEXURE-8: A- 28 KL WATER SPRINKLER MOUNTED ON DUMPER, SPRINKLING ON HAUL ROAD AT KIOM



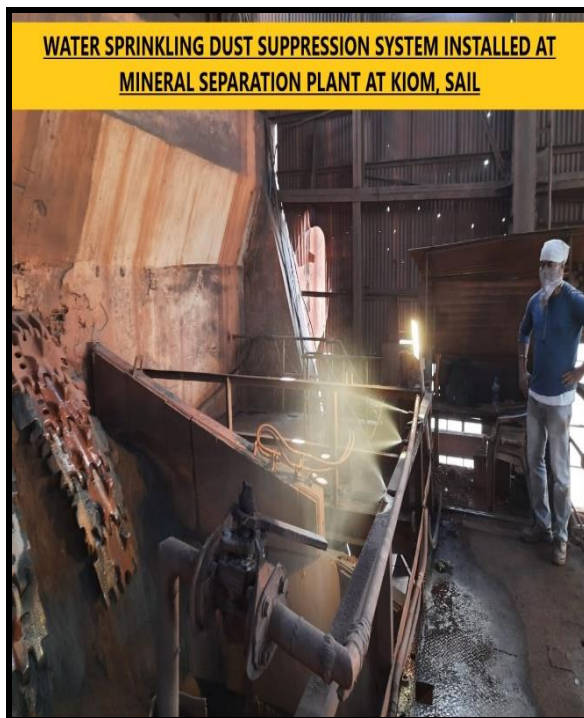
ANNEXURE-8: B- PERMANENT WATER SPRINKLER INSTALLED AT KIOM MINE HAUL ROAD



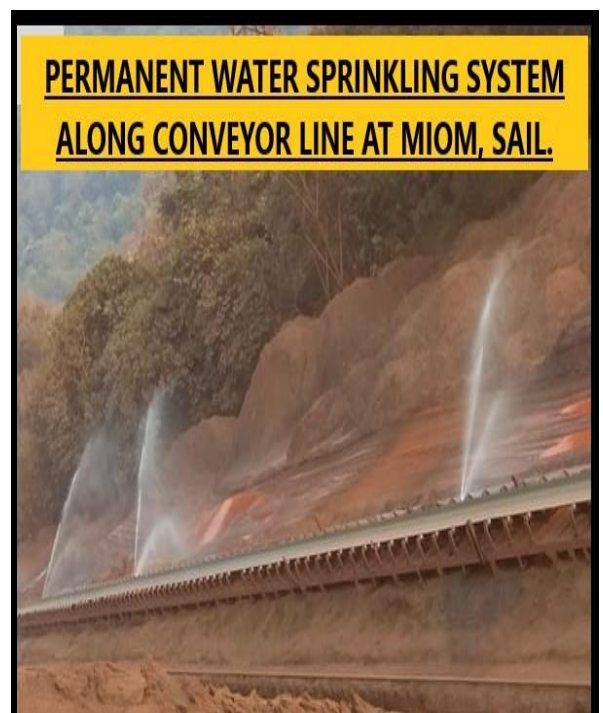
ANNEXURE-8: C- DRY FOG DUST SUPPRESSION
SYSTEM INSTALLED AT HOPPER, MINERAL
SEPARATION PLANT AT KIOM, SAIL



ANNEXURE-8: E- PERMANENT WATER SPRINKLING
SYSTEM AT MEGHAHATUBURU IRON ORE MINES,
SAIL

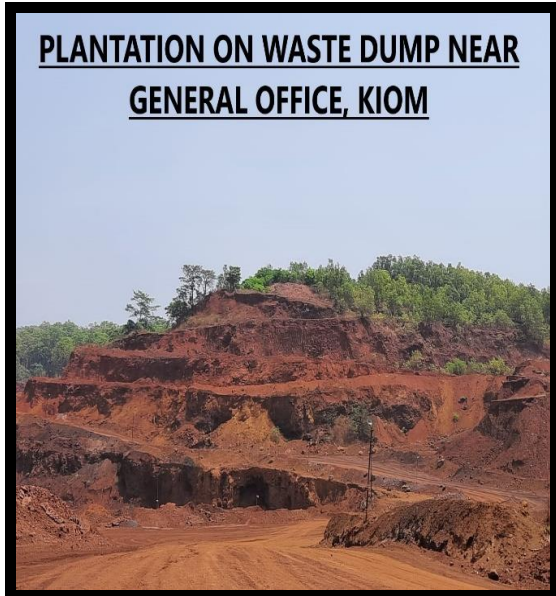


ANNEXURE-8: D- WATER SPINKLING DUST
SUPPRESSION SYSTEM INSTALLED AT MINERAL
SEPARATION PLANT AT KIOM, SAIL



ANNEXURE-8: F- PERMANENT WATER SPRINKLING
SYSTEM AT MEGHAHATUBURU IRON ORE MINES,
SAIL

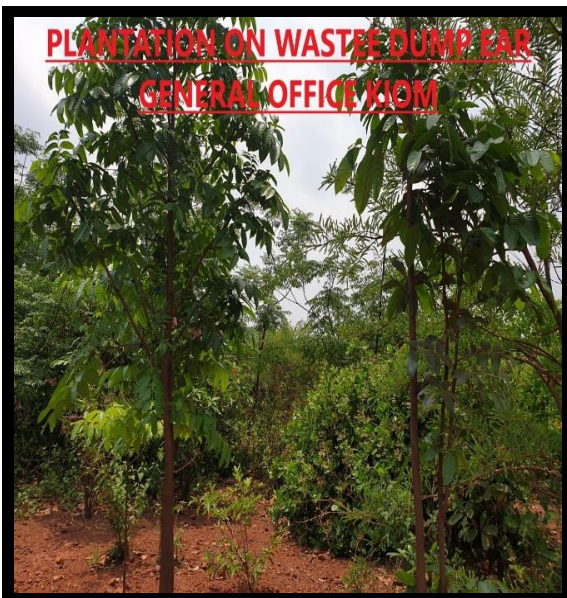
ANNEXURE 9- PHOTOGRAPH SHOWING PLANTATION AT VARIOUS LOCATIONS OF MINES, TOWNSHIP & COIR MATTING & COPY OF MOU SIGNED BETWEEN RMD, SAIL KIOM & IFP RANCHI FOR ECO-RESTORATION ON MINED OUT AREA KIOM-MIOM, SAIL



ANNEXURE-9: A- PLANTATION ON WASTE DUMP NEAR GENERAL OFFICE, KIOM



ANNEXURE-9: C- PLANTATION ON BACKFILLED AREA NEAR MINERAL SEPARATION PLANT, KIOM



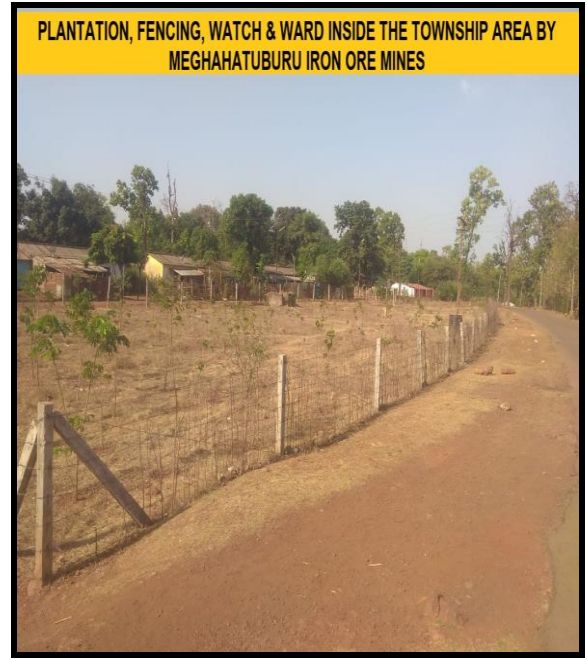
ANNEXURE-9: B- PLANTATION ON WASTE DUMP NEAR GENERAL OFFICE KIOM



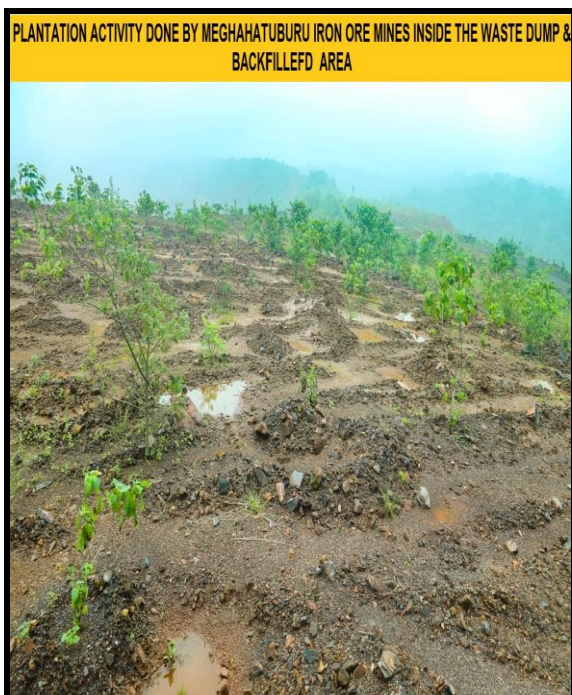
ANNEXURE-9: D- PLANTATION ON BACKFILLED AREA NEAR MINERAL SEPARATION PLANT, KIOM



ANNEXURE-9: E- PLANTATION ACTIVITY DONE BY
MEGHAHATUBURU IRON ORE MINES INSIDE THE
WASTE DUMP & BACKFILLEFD AREA



ANNEXURE-9: G- PLANTATION, FENCING, WATCH &
WARD INSIDE THE TOWNSHIP AREA BY
MEGHAHATUBURU IRON ORE MINES



ANNEXURE-9: F- PLANTATION ACTIVITY DONE BY
MEGHAHATUBURU IRON ORE MINES INSIDE THE
WASTE DUMP & BACKFILLEFD AREA



ANNEXURE-9: H- PLANTATION DONE BY
MEGHAHATUBURU IRON ORE MINES IN TOWNSHIP
AREA AT MEGHA NIKUNJ GARDEN



**ANNEXURE-9: I- GREEN HOUSE AT LAKE GARDEN
KIOM, SAIL**



**ANNEXURE-9: L- PLANTATION ON BACKFILLING
AREA BY IFP RANCHI AT KIOM**



**ANNEXURE-9:J- SURVEY & PREPARATORY WORK
DONE BY OFFICIALS OF IFP RANCHI IN
CONSULTATION WITH OFFICIALS OF KIOM**



**ANNEXURE-9: M- PREPARATION OF NURSERY
UNDER ECORESTORATION MOU CONDITION OF
MEGHAHATUBURU IRON ORE MINES & IFP RANCHI,
NEAR MEGHA CLUB IN MIOM**



**ANNEXURE-9: K- LAKE GARDEN PLANTATION AT
KIOM, SAIL**



**ANNEXURE-9: N- PREPARATION OF NURSERY
UNDER ECORESTORATION MOU CONDITION OF
MEGHAHATUBURU IRON ORE MINES & IFP RANCHI,
NEAR MEGHA CLUB IN MIOM**



Government of Jharkhand

Receipt of Online Payment of Stamp Duty

NON JUDICIAL

Receipt Number : 95ab6dec8e9d93585d38

Receipt Date : 16-Jan-2021 10:53:37 am

Receipt Amount : 100/-

Amount In Words : One Hundred Rupees Only

Document Type : Agreement or Memorandum of an Agreement

District Name : West Singhbhum

Stamp Duty Paid By : KIRIBURU IRON ORE MINES RMD SAIL

Purpose of stamp duty paid : AGREEMENT

First Party Name : INSTITUTE OF FOREST PRODUCTIVITY RANCHI

Second Party Name : KIRIBURU IRON ORE MINES RMD SAIL

GRN Number : 2103844105

-: This stamp paper can be verified in the jharnibandhan site through receipt number :-

डा० नितिन कुलकर्णी
निदेशक

वन उत्पादकता संस्थान
रांची

DILIP KUMAR BARMAN
Chief General Manager (Mines)

Kiriburu Iron Ores Mines
Raw Belcher Division, SAIL
Dist. Singhbhum (W), Jharkhand



This Receipt is to be used as proof of payment of stamp duty only for one document. The use of the same receipt as proof of payment of stamp duty in another document through reprint, photo copy or other means is penal offence under section-62 of Indian Stamp Act, 1899

इस रसीद का उपयोग केवल एक ही दस्तावेज पर मुद्रांक शुल्क का भुगतान के प्रमाण हेतु ही किया जा सकता है। पुनः प्रिन्ट कर अथवा फोटो कॉपी आदि द्वारा इसी रसीद का दूसरे दस्तावेज पर मुद्रांक शुल्क का भुगतान के प्रमाण हेतु उपयोग भारतीय मुद्रांक अधिनियम, 1899 की धारा 62 अन्तर्गत दण्डनीय अपराध है।

ANNEXURE-9: O- COPY OF MOU SIGNED BETWEEN RMD, SAIL KIOM & IFP RANCHI FOR ECO-RESTORATION ON MINED OUT AREA OF 10 HA AT KIOM



Government of Jharkhand

Receipt of Online Payment of Stamp Duty

NON JUDICIAL

Receipt Number : 0f2af455a9543651213f

Receipt Date : 16-Jan-2021 10:49:12 am

Receipt Amount : 100/-

Amount In Words : One Hundred Rupees Only

Document Type : Agreement or Memorandum of an Agreement

District Name : West Singhbhum

Stamp Duty Paid By : MEGHAHATUBURU IRON ORE MINES
RMD SAIL

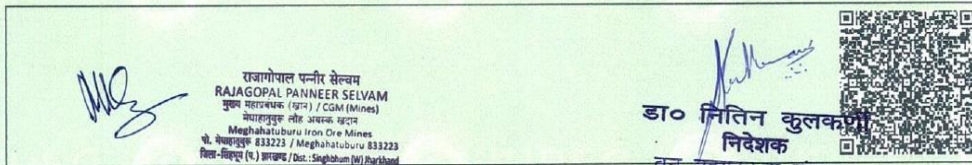
Purpose of stamp duty paid : AGREEMENT

First Party Name : MEGHAHATUBURU IRON ORE MINES
RMD SAIL

Second Party Name : INSTITUTE OF FOREST PRODUCTIVITY
RANCHI

GRN Number : 2103844016

:- This stamp paper can be verified in the jharnibandhan site through receipt number :-



This Receipt is to be used as proof of payment of stamp duty only for one document. The use of the same receipt as proof of payment of stamp duty in another document through reprint, photo copy or other means is penal offence under section-62 of Indian Stamp Act, 1899

इस रसीद का उपयोग केवल एक ही दस्तावेज पर मुद्रांक शुल्क का भुगतान के प्रमाण हेतु ही किया जा सकता है। पुनः प्रिन्ट कर अथवा फोटो कॉपी आदि द्वारा इसी रसीद का दूसरे दस्तावेज पर मुद्रांक शुल्क का भुगतान के प्रमाण हेतु उपयोग भारतीय मुद्रांक अधिनियम, 1899 की धारा 62 अन्तर्गत दण्डनीय अपराध है।

ANNEXURE-9: P-COPY OF MOU SIGNED BETWEEN RMD, SAIL MIOM & IFP RANCHI FOR ECO-RESTORATION ON MINED OUT AREA OF 8.5 HA AT MIOM, SAIL

**ANNEXURE 10- WORK ORDER COPY FOR CONSTRUCTION OF 3
NUMBER OF SEWAGE TREATMENT PLANTS FOR TOWNSHIP
HOUSEHOLDS AT KIOM-MIOM, SAIL**

CONTRACT AGREEMENT

BETWEEN



STEEL AUTHORITY OF INDIA LIMITED
(RAW MATERIALS DIVISION)

&

M/s SOPHISTICATED INDUSTRIAL MATERIALS ANALYTIC
LABS PVT. LTD.

FOR

SETTING UP OF SEWERAGE TREATMENT PLANTS AT
KIOM & MIOM TOWNSHIPS AT KIRIBURU &
MEGHAHATUBURU IRON ORE MINES

CONTRACT AGREEMENT NO.

RMD/K/PROJ/MIOM/CA/19-20/105 DATED: 03/10/2019

CA No. RMD/K/PROJ/MIOM/CA/19-20/105 Dated: 03/10/2019

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পশ্চিমবঙ্গ পশ্চিম বঙ্গাল WEST BENGAL

AC 718260

CONTRACT AGREEMENT

THIS CONTRACT NO. RMD/K/PROJ/MIOM/CA/19-20/105 made this 03rd Day of October Two Thousand Nineteen at RMD, Kolkata.

BETWEEN

STEEL AUTHORITY OF INDIA LIMITED, a Company incorporated under the Companies Act, 1956 and having its registered office at Ispat Bhavan, Lodi Road, New Delhi 110 003, India, having one of its mines, **MEGHAHATUBURU IRON ORES MINES under Raw Materials Division (RMD) at MEGHAHATUBURU, DISTRICT-WEST SINGHBHUM, JHARKHAND-833223** (hereinafter referred to as the "Employer") which term or expression unless excluded by or repugnant to the context or the meaning thereof, shall be deemed to include its successors and permitted assigns, **OF THE ONE PART,**

AND

M/s Sophisticated Industrial Materials Analytic Labs Pvt. Ltd. a partnership firm / Company organized and existing under the laws of India and having its Office at **A-3/7, Mayapuri Industrial Area, Phase-II, New Delhi-64** (hereinafter referred to as "Contractor"), which term or expression unless excluded by or repugnant to the context or meaning thereof, shall be deemed to include its successors and permitted assigns, **OF THE OTHER PART**

AND WHEREAS

- The Employer has decided to set-up **Setting up of Sewerage Treatment Plants at KIOM & MIOM Townships at Kiriburu & Meghahatuburu Iron Ore Mines** (hereinafter referred to as the "Facilities"), and
- The Contractor has declared that the Contractor has valuable and specialized knowledge and expertise for providing and executing the above Facilities and
- The Contractor has declared that the Contractor is in a position to disclose, impart, deliver and transfer the requisite engineering data, drawings and documents of those items which are in the scope of the Contractor in this Contract, to the Employer for the engineering of the Facilities and for erection, start-up and commissioning of the Facilities with the aim to manufacture product as specified in the Contract, and

CA No. RMD/K/PROJ/MIOM/CA/19-20/105 Dated: 03/10/2019

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Handwritten signature and date: 13/10/19

01/10/19

450

Date: 01/10/19

Name: D. G. M. (Projector)

Address: Shekhar Sagar

P.S.:

Dist.:

Name of Treasury :- Barreackpore

Name of Vendor :- RANA SUN

Date of Purchase: 25 SEP 2019

Total Amount: 390 000

Signature of Vendor: Rana Sun

01/10/19

- d) The Contractor has obtained clarifications on technical and commercial aspects, inspected the site and surroundings of Facilities and has examined and considered all other matters, conditions and things, probable contingencies and generally all matters incidental thereto and ancillary thereof, affecting the execution and completion of the Facilities, and
- e) The Contractor has agreed to undertake design & engineering, civil engineering work, dismantling of buildings, structures & equipment, fabrication & supply of steel structures, manufacture & supply of plant and equipment, manufacture & supply of refractories, intermediate storage, insurance & handling, erection work, testing, pre-commissioning, start-up & commissioning and demonstration & establishment of performance guarantee parameters of the Facilities.

NOW IT IS HEREBY AGREED as follows:

Article 1 Contract Documents

1.1 Definitions (Reference GCC Clause 1)

1.2 Contract Documents (Reference GCC Clause 2)

The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract:

- (a) This Contract Agreement and Appendices hereto
- (b) Special Conditions of Contract and Annexure hereto
- (c) Safety code for Contractors
- (d) General Conditions of Contract and Annexure hereto
- (e) Contract Technical Specifications
- (f) LOA issued by the Employer & accepted by the contractor.
- (g) Guidelines on banning of business dealings.

1.3 Order of Precedence (Reference GCC Clause 2)

In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.2 (Contract Documents) above.

Article 2 Contract Price and Terms of Payment

2.1 Contract Price (Reference GCC Clause 11 & Appendix-1)

The Employer hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder. The Contract Price is ₹ 9,20,27,420.60 (Rupees Nine Crore, Twenty Lakh, twenty seven Thousand, four Hundred twenty and sixty paise only) (Inclusive of GST@12%) or such other sums as may be determined in accordance with the terms and conditions of the Contract.

2.2 Terms of Payment (Reference Appendix-3)

The terms of payment are given in Appendix-3 and SCC clause no:- 18

2.3 Price Adjustment due to Variation in Price Indices (Reference Appendix-4)

Price adjustment is applicable as per Appendix-4 and the Base Date Shall be 16.04.2019 .

CA No: RMD/K/PROJ/MIOM/CA/19-20/105 Dated: 03/10/2019

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Article 3 Effective Date

3.1 The Effective Date of Contract shall be **20-09-2019**.

Article 4 Scope of Facilities (Reference GCC Clause 7 & Technical Specifications)

- 4.1 The Contract is for the execution of Scope of Facilities as specified in the GCC Clause 7 and Technical Specifications, on divisible turnkey basis. The quantities/ weights of any item are indicative only for the purpose of making progress payments on pro-rata basis as per Sub-Clause 2.3 of Appendix-3.
- 4.2 Should the actual quantities/ weights differ from the indicated ones, neither the Contractor shall be entitled to get any additional price from the Employer nor is the Employer entitled to deduct any amount from the Contract Price due to variation in physical quantities / weight.

Article 5 Time for Completion (Reference GCC Clause 8 & Appendix-2)

- 5.1 The Facilities will be commissioned in **24 (Twenty four)** from the Effective Date of the Contract.

The Performance Bank Guarantee (PBG) shall be submitted by the Contractor within 30 days of signing of Contract.

Article 6 Consultant

- 6.1 **Center for Engineering and Technologies (CET), Ranchi** shall be the Consultant for this project. The consultant in relation to the Contract, shall have such functions as are delegated to him or as may be delegated to him by the Employer from time to time. Employer shall keep the Contractor informed of such delegation.

Article 7 Subcontracting (Reference GCC Clause 19)

- 7.1 This shall be as per GCC Clause 19.

Article 8 Liquidated Damages (Reference GCC Clause 27 & 29)

- 8.1 **Liquidated Damages due to Delay in Completion of Facilities** (Reference GCC Sub-Clause 29.2)

If the Contractor fails to attain "Completion of the Facilities" within the Time for Completion or any extension thereof under Clause 42 (Extension of Time for Completion) of GCC due to reasons attributable to the Contractor, the Employer shall recover the amount of Liquidated Damages, but not by way of penalty, by making deductions from the Contractor's account or by encashment of Contractor's Bank Guarantees (as per Sub-Clause 13.1.2 of GCC), at the rate of 0.5% of the Contract Price plus escalation, if any, paid or payable to the Contractor, excluding taxes and duties per complete week of delay up to a maximum of 5% of the Contract Price plus escalation if any, paid or payable to the Contractor excluding taxes and duties, as specified in the Clause 29.2 of GCC.

- 8.2 **Liquidated Damages for Non-fulfillment of Performance Guarantee Parameters of**

Facilities (Reference GCC Clause 27)

If, for reasons attributable to the Contractor, the performance guarantee parameters specified in **Appendix-5** are not met either in whole or in part, the Contractor shall at its cost and expense make such changes, modifications and/ or additions to the Facilities or any part thereof as may be necessary to meet performance guarantees parameters. The

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9/02/10/2019

Contractor shall notify the Employer upon completion of the necessary changes, modifications and/ or additions and the Contractor shall be allowed by the Employer to repeat the performance guarantee tests twice after first campaign of guarantee test and the Contractor must establish the performance guarantee parameters during second or third test.

In case the Contractor expresses its inability to achieve the performance guarantee parameters but attains above the minimum acceptance level of performance guarantee parameters, as specified in **Appendix-5**, either in whole or in part, the Employer shall recover the amount of Liquidated Damages, but not by way of penalty, by making deductions from the Contractor's account or as a last resort by encashment of Contractor's Bank Guarantees, at the rates specified in the **Appendix-5** for respective items, subject to a maximum of 7.5% of the Contract Price plus escalations, if any, paid or payable to the Contractor excluding taxes and duties, in respect of the failure to demonstrate the Performance Guarantees in accordance with the provisions in **Appendix-5**.

In case, even after all possible repairs and replacements the Contractor fails to attain the minimum level of performance guarantee parameters in third test conducted, the Employer may at its option reject the Facilities and recover the entire cost paid to the Contractor or alternatively the Employer may proceed for commercial settlement with the Contractor for acceptance of the Facilities at the negotiated Price.

The Employer shall not reject the plant & equipment after commissioning and achievement of minimum acceptance level of PG parameters. After successful commissioning and achievement of the minimum acceptance level of PG parameters, the total liability of the Contractor on account of delay and demonstration of PG parameters will not be more than LD.

- 8.3 The Overall limit of Liquidated Damages with respect to Articles 8.1 & 8.2 shall be 10% of the Contract Price plus escalation, if any, excluding taxes and duties. However, individual ceiling for delay in completion and non-fulfillment of the PG parameters shall be 5% and 7.5% respectively.
- 8.4 Any Recovery of Liquidated Damages shall be effected from the amount payable to the Contractor against Commissioning, Performance Guarantee Test, Final Acceptance Certificate and Performance Bank Guarantee. LD will not be recovered from the running bills prior to above payments.

Article 9 Arbitration (Reference GCC Clause 6)

- 9.1 This shall be as per relevant portion of Clause 6 of GCC.

Article 10 Liability of Govt. of India

10.1 It is expressly understood and agreed between the Contractor and the Employer that the Employer is entering into this Contract solely on its own behalf and not on behalf of any other person or entity. In particular, it is expressly understood and agreed that the Govt. of India is not a party to this Contract and has no liabilities, obligations or rights hereunder. It is expressly understood and agreed that the Employer is an independent legal entity with power and authority to enter into Contracts solely on its own behalf under the applicable laws of India and general principles of Contract Law. The Contractor expressly agrees, acknowledges and understands that the Employer is not an agent, representative or delegate of the Govt. of India. It is further understood and agreed that the Govt. of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the Contract. Accordingly, the Contractor hereby, expressly waives, releases and foregoes any and all actions or claims, including cross claims, impleader claims or counter claims against the Govt. of India arising out of this Contract and covenants not to sue the Govt. of India as to any manner, claim, cause of action or thing whatsoever arising of or under this Contract.

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dt: 03/10/2019

Article 11 Appendix

11.1 The following Appendices shall be deemed to form an integral part of this Contract Agreement. Reference in the Contract to any Appendix shall mean the Appendices attached hereto, and the Contract shall be read and construed accordingly.

- 1 Price Schedule
- 2 Time Schedule
- 3 Terms of Payment
- 4 Price Adjustment due to Variation in Price Indices
- 5 Performance Guarantees
- 6 List of Approved Vendors for Indian Component

Article 12.


No modifications of this Contract including Appendices hereto, shall be valid unless the same is agreed to in writing by the parties and specifically mentioned as an amendment to the Contract.

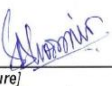
IN WITNESS WHEREOF the Employer and the Contractor have caused this Agreement to be duly executed by their duly authorised representatives the day and year first above written.

Signed by for and on behalf of
Contractor
(M/s Sophisticated Industrial
Materials Analytic Labs Pvt. Ltd)


[Signature]
Aseem Shrivastava
Associate Vice President.
[Designation]

In the presence of _____


1) 
[Signature]
Manager
[Designation]

2) 
[Signature]
Reg. Manager
[Designation]

Signed by for and on behalf of the
Employer (SAIL RMD)


[Signature]
ए. के. बेहुरिया / A. K. Behuria
उप महाप्रबंधक (वित्त-परियोजना)
Dy. General Manager (Fin.-Proj.)
सेल - आर एम डी / SAIL - RMD
10, Camac Street, Kolkata - 700 017
[Designation]

In the presence of _____

1) 
[Signature]
Dy. Gen. Manager
[Designation]

2) 
[Signature]
Manager (Projects)
[Designation]

CA No. RMD/K/PROJ/MIOM/CA/19-20/105 Dated: 03/10/2019

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ANNEXURE-10: G- CONTRACT AGREEMENT COPY FOR CONSTRUCTION OF 3 NUMBER OF SEWAGE TREATMENT PLANTS FOR TOWNSHIP HOUSEHOLDS AT KIOM-MIOM, SAIL PAGE-7

ANNEXURE 11- EFFLUENT TREATMENT & DISPOSAL FACILITY FOR USED OIL AT KIOM-MIOM, SAIL



**ANNEXURE-11: A- EFFLUENT WASTE USED OIL
STORAGE DRUMS STACKED AT KIOM, SAIL**

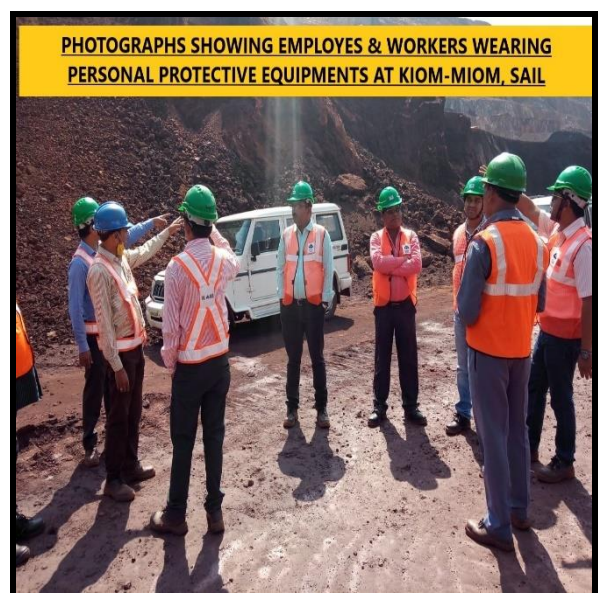


**ANNEXURE-11: B- EFFLUENT TREATMENT UNIT
(ETP) - EFFLUENT OIL & GREASE TRAP INSTALLED AT
KIOM, SAIL**

ANNEXURE 12- PHOTOGRAPHS SHOWING EMPLOYEES & WORKERS WEARING PERSONAL PROTECTIVE EQUIPMENTS AT KIOM-MIOM, SAIL



**ANNEXURE-12: A- PHOTOGRAPHS SHOWING
EMPLOYEES & WORKERS WEARING PERSONAL
PROTECTIVE EQUIPMENTS AT KIOM-MIOM, SAIL**



**ANNEXURE-12: B- PHOTOGRAPHS SHOWING
EMPLOYEES & WORKERS WEARING PERSONAL
PROTECTIVE EQUIPMENTS AT KIOM-MIOM, SAIL**

ANNEXURE 13- COPIES OF CONCENT TO OPERATE (CTO) OF KIOM-MIOM, SAIL

COPY OF CONCENT TO OPERATE (CTO) VALID TILL 31/12/2024 PAGE-1



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004

Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/2400139

Ref No. JSPCB/HO/RNC/CTO-5913229/2019/2540

Dated : 2019-12-24

Consent to operate (CTO) under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981

1. Application (s) dated 2019-08-26 of KIRIBURU-MEGHAHATUBURU IRON ORE MINES, Occupier Name :C Mukhopadhyay for consent under section 25 (1)(b)/25 (1) (c)/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21(1) of the Air (Prevention & Control of Pollution) Act,1981..
2. **Documents Relied Upon:**
 - (1.) The content of Environmental Clearance (EC), Ref No. J-1105/05/2006-IA.II (M) Dated 27.12.2006, Ref No. J-1105/272/2007-IA.II (M) Dated 23.09.2014 issued by MoEF, Govt. of India.
 - (2.) The content of Consent-to-Establish (CTE), Ref No. G-697 Ranchi, Dated 25.03.2015.
 - (3.) The content of Consent-to-Operate (CTO), vide Ref No. JSPCB/HO/RNC/CTO-1024701/2016/1091 Dated : 2016-12-31 for Iron Ore-16.0 Million Ton/annum, Mineral Beneficiation – 16 Million TPA valid up to 31.12.2019;
 - (4.) The content of inspection report, Ref. No. 1574 dated 13.09.2019 of Regional Office -cum-Laboratory, Jamshedpur of the Board.
3. The consent is granted under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 to operate the project in Mauza -KARAMPADA , P S -KIRIBURU , District -WEST SINGHBHUM , as follows:

Project	Site-Area		Investment (Rs)	Product & Capacity	Period of CTO
	Plot Nos.	Area			Date of issue To
Before Expansion	Block No. 15, - Karampada, P.O. Kiriburu, Dist. West Singhbhum	As per EC	98983 Lacs	Iron Ore-16.0 Million Ton/annum, Mineral Beneficiation – 16 Million TPA	31/12/2024

(A) Specific Conditions:

1. That, the occupier shall comply all the conditions imposed in Forest Clearance Letter No. F-No.-8-69/2991-FC (PT) and carry out mining activity over such Forest Area only for which due approval from the competent authority has been obtained.
2. That, the occupier shall obtain approval under the F.C. Act for diversion of entire forest land within the mining lease within a period of 2 years from the date of issue of the guidelines vide F. No. 11-362/2012-FC, MOEF, Govt. of India (FC Division) dated 01.02.2013 failing which the mining lease area will be reduced to the non forest area plus the forest area for which the unit has been able to obtain Environmental Clearance at the end of this time period.
3. That, the occupier shall do sprinkling of water time to time on haul roads and dust prone areas.
4. That, the occupier shall take initiative to mitigate pollution of Koina river and Karo river in consultation with the State Pollution Control Board and shall submit action taken report within two months.
5. That, the occupier shall construct sewage treatment plant for the colony as per time bound action plan submitted by the unit. ETP should also be provided for workshop and mineral separation plant.
6. That, the occupier shall carry out blasting operation during the day time. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
7. That, the occupier shall keep the vehicular emission under control by regularly monitoring of the vehicles used in mining operations and in transportation of minerals. The engaged vehicles shall be covered with a tarpaulin and shall not be overloaded at any cost.
8. That, the occupier shall re-circulate the decanted water from the beneficiation plant and slime/tailing pond within the mine and there shall be zero discharge from the mine.
9. The mining operations shall be restricted to above ground water table and it should not intersect with ground water table.
10. Plantation on the OB dump slopes has to be increased and managed properly. Housekeeping should be maintained in the specified area.
11. The top soil, if any shall temporarily be stored at earmarked site only and it should not be kept underutilized for long. The top soil shall be used for land reclamation and plantation. The overburden generated during the mining operations shall be stacked at earmarked dump site only and it should not be kept active for a long period of time. The maximum height of the stack should not exceed 8 m and width 20 m and overall slope of the dump shall be maintained at 45 degrees.
12. Catch drains and siltation pond of appropriate size shall be constructed around the mine working, mineral and OB dump to prevent runoff of water and flow of sediments directly into the river and other water bodies.

13. That, the occupier shall adopt clean development mechanism.
14. That, the occupier shall provide adequate no. of high efficiency dust extraction system in mineral handling plant loading and unloading areas including all the transfer points should also have efficient dust control arrangements. The should be properly maintained and operated.
15. That, funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry as well as the State Pollution Control Board.
16. That, the occupier shall comply the conditions of Environmental Clearance and shall submit six monthly compliance report of it to the Board.
17. That, the occupier shall grant of this Consent-to-Operate is issued from the Environmental angle only and does not absolves the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry /unit/project proponent.
18. That, the grant of this Consent-to-Operate shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made there under.
19. That, the occupier shall submit applications for renewal of consent under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 again 120 days prior to the date of expiry of this consent i.e. 31.12.2024 with requisite fee and documents showing compliance of all of the above conditions.
20. This CTO will supersede the previous CTO issued vide ref.no. JSPCB/HO/RNC/CTO-1024701/2016/1091 Dated : 2016-12-31 valid up to 31-12-2019 for further period.
21. That, the occupier shall install CAAQMS and PM10 analyzer with connectivity to website of the Board, within 03 months, failing which Environmental Compensation shall be levied from date of issued of this Consent to operate(CTO);

(B) General Conditions :

- (1) That, the occupier shall maintain the **National Ambient Air Quality Standard** given below:

S N	Pollutant	Time Weighted Average	Concentration in Ambient Air	
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Govt.)
(1)	(2)	(3)	(4)	(5)
1.	Sulphur Dioxide (SO ₂), µg/m ³	Annual 24 hours	50 80	20 80
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual 24 hours	40 80	30 80
3.	Particulate Matter (size less than 10 µm) or PM ₁₀ , µg/m ³	Annual 24 hours	60 100	60 100
4.	Particulate Matter (size less than 2.5 µm) or PM _{2.5} , µg/m ³	Annual 24 hours	40 60	40 60
5.	Ozone(O ₃), µg/m ³	8 hours 1 hour	100 180	100 180
6.	Lead (Pb) µg/m ³	Annual 24 hours	0.50 1.0	0.50 1.0
7.	Carbon Monoxide (CO) mg/m ³	8 hours 1 hour	02 04	02 04
8.	Ammonia (NH ₃) µg/m ³	Annual 24 hours	100 400	100 400
9.	Benzene (C ₆ H ₆) µg/m ³	Annual	05	05
10.	Benzo(a) Pyrene(BaP) Particulate Phase only ng/m ³	Annual	01	01
11.	Arsenic (As) ng/m ³	Annual	06	06
12.	Nickel (Ni) ng/m ³	Annual	20	20
Note : Serial no. 1 to 4 – Mandatory Serial no. 5 to 12 As applicable for specific type of industry.				

- (2) That, the occupier shall maintain the emission quality within the standard and the quantity, as follows:

S N	Parameter	Standard
-----	-----------	----------

- (3) That, the occupier shall keep process effluent in close-circuit and the quality of effluent from other sources in conformity with the standard (s) and the discharge quantity as below:

S N	Parameter	Standard
1	Total Suspended Solids	100 mg/ Nm3
2	BOD	30 mg/L
3	COD	250 mg/L
4	Oil & Grease	10 mg/L

- (4) That, the occupier shall dispose of solid wastes as follows:

S N	Waste Type	Mode of Disposal
1	Hazardous Carbonaceous Wastes	As a substitute of Soil or Mineral
2	Hazardous Non-Carbonaceous Wastes	In co-processing in high temperature furnaces or kilns
3	Non-Carbonaceous Non-Hazardous solid wastes/ Mine Over Burden	In TSDF

- (5) That, the occupier shall keep D G Set(s) within acoustic enclosure and shall keep the height(s) of exhaust pipe(s) as per Central Pollution Control Board norm.
- (6) That, the occupier shall install and maintain Central Ground Water Board/ State Ground Water Directorate approved system of rain water harvesting-cum-ground water recharge and submit the photographic view of the structures within a month.
- (7) That, the occupier shall grow and maintain greenery of the project in the periphery and other available spaces and shall continue enhancing its plant density and biodiversity.
- (8) That, the occupier shall submit environmental statement with supporting stoichiometric calculations analyses reports, every year latest by 30th September of the next financial year.
- (9) That, the occupier shall submit report(s) duly monitored and issued by an NABL accredited / ISO 9001:2008 and OHSAS 18001:2007 certified laboratory in compliance sub-para (2), (3), (4) and (5) of paragraph 3 of this CTO yearly at required periodicity.
- (10) That, this CTO is valid subjected to the validity of mining Lease/Mining Plan/Ecofriendly/Environmental Clearance, if applicable. In case of no renewal of Mining Lease/Mining Plan, this consent shall be treated as revoked automatically.

- (11) That, this CTO is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ occupier.
- (12) That, this CTO shall not in any way, adversely affect or jeopardize the legal proceeding , if any, instituted in the past or that could be , instituted against you by the State Board for violation of the provisions of the Act or the Rules made there under.
- (13) That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Water (Prevention & Control of Pollution) Cess Act, 1977; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and Rules made there under.
4. That, this CTO shall not absolve the occupier from making compliance of other statutory prescribed under any law or direction of courts or any other instrument for the time being in force.
5. That, this CTO is being issued on the basis of information/ documents/ certificate submitted by the unit. This CTO will be revoked if any of the information/documents/certificates/undertaking given by the occupier is found false/fictitious/forged in future.
6. The Order shall be valid subject to compliance of all other legal requirements applicable to the unit.
7. The State Board reserve the right to revoke, withdraw or make any reasonable variation / change / alteration in conditions of this consent.

This is issued with the approval of the Competent authority

(Rajeev Lochan Bakshi)

Member Secretary

Memo No. : JSPCB/HO/RNC/CTO-
5913229/2019/2540

Dated : 2019-12-24

Copy to: General Manager (Mines), Kiriburu-Meghahatuburu Iron Ore Mines of M/s. SAIL, Kiriburu-Meghahatuburu, Dist. West Singhbhum / D.F.O., Saranda Forest Division, Chaibasa, West Singhbhum / D.M.O., Chaibasa, West Singhbhum / Regional Officer, Regional Office, Jamshedpur for information & necessary action. He should ensure that river Koina and Karo may not be polluted due to mining operation.

(Rajeev Lochan Bakshi)

Member Secretary

COPY OF CTO VALID TILL 30/09/2023**JHARKHAND STATE POLLUTION CONTROL BOARD**

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004

Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/2400139

Ref No. JSPCB/HO/RNC/CTO-9151117/2020/1890

Dated : 2020-12-07

Consent to operate (CTO) under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981

1. Application (s) dated 2020-10-15 of KIRIBURU-MEGHAHATUBURU IRON ORE MINES, Occupier Name : R P SELVAM for consent under section 25 (1)(b)/25 (1) (c)/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21(1) of the Air (Prevention & Control of Pollution) Act, 1981..

2. Documents Relied Upon:

(a) The content of Letter from MoEF&CC (Forest Conservation Division) vide F. No. 8-69/1991-FC (Pt) dated 26.11.2014 regarding renewal of mining lease covering 644.26 Ha of forest land for Kiriburu - Meghatuburu group of Mines (Total lease area 1936.06 ha) in favour of M/s SAIL;

(b) The content of Environmental Clearance (EC) vide J-11015/272/2007-IA.II (M) dated 23.09.2014 from MoEF, New Delhi;

(c) The content of Mining lease issued vide 1255 dated 30.07.2019 for the period up to 27.03.2020 from Mines and Geology, Govt. of Jharkhand and later amended vide 1750 dated 23.10.2019 declaring the area to be read as 82.00 Ha instead of 81.97 Ha and total area to be read as 2897.499 Ha instead of 2897.469 Ha.

(d) The content of Letter from Impact Assessment Division vide F.No. J-11015/272/2007-IA. II (M) dated 30.07.2020 regarding Proposal for change in excavation & dispatch pattern of Kiriburu Meghatuburu Iron Ore Mining project [ML Area 2897.499 Ha] of M/s Steel Authority of India Limited (SAIL), located at Villages Kiriburu, Meghatuburu & Karampada Reserve Forest, Tehsil-Noamundi, District West Singhbhum, Jharkhand - EC under Para 7;

(e) The content of Consent to establish (CTE) vide Ref No.: JSPCB/HO/RNC/CTE-8648968/2020/378 Dated : 2020-09-30 for Tailing disposal from Meghatuburu and Kiriburu - 1 MTPA from each;

(f) The content of obtained authorization vide HWM-1149245/2019/26 dated 03.08.2019 for 05 years;

(g) The content of inspection report vide 1045 dated 31.10.2020 issued by Regional Officer, Regional Office-Cum-Laboratory, Jamshedpur;

3. The consent is granted under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 to operate the project in Mauza -KARAMPADA , P S -KIRIBURU , District -WEST SINGHBHUM , as follows:

Project	Site-Area		Investment (Rs)	Product & Capacity	Period of CTO
	Plot Nos.	Area			Date of issue To

Before Expansion	Mauza : KARAMPAD A Khata No. : BLOCK NO. 15 Khesra No. : KARAMPAD A, TOTAL 14 NOS	2897.46 9 Ha.	255 lakh	Tailing disposal from Meghatauru and Kinburu - 1 MTPA from each.	30/09/2023
------------------	--------------------------------------------------------------------------------------------------------	------------------	----------	---------------------------------------------------------------------------	------------

(A) Specific Conditions:

1. That, the occupier shall do sprinkling of water time to time on haul roads and dust prone areas.
2. That, the occupier shall construct sewage treatment plant for the colony as per time bound action plan submitted by the unit. ETP should also be provided for workshop and mineral separation plant.
3. That, the occupier shall carry out blasting operation during the day time. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
4. That, the occupier shall keep the vehicular emission under control by regularly monitoring of the vehicles used in mining operations and in transportation of minerals. The engaged vehicles shall be covered with a tarpaulin and shall not be overloaded at any cost.
5. That, the occupier shall carry out blasting operation during the day time. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
6. That, the occupier shall keep the vehicular emission under control by regularly monitoring of the vehicles used in mining operations and in transportation of minerals. The engaged vehicles shall be covered with a tarpaulin and shall not be overloaded at any cost.
7. That, the occupier shall re-circulate the decanted water from the beneficiation plant and slime/tailing pond within the mine and there shall be zero discharge from the mine.
8. Plantation on the OB dump slopes has to be increased and managed properly. Housekeeping should be maintained in the specified area.
9. Catch drains and siltation pond of appropriate size shall be constructed around the mine working, mineral and OB dump to prevent runoff of water and flow of sediments directly into the river and other water bodies.

10. That, the occupier shall adopt clean development mechanism.
11. That, the occupier shall provide adequate no. of high efficiency dust extraction system in mineral handling plant loading and unloading areas including all the transfer points should also have efficient dust control arrangements. The should be properly maintained and operated.
12. That, the occupier shall comply the conditions of Environmental Clearance and shall submit six monthly compliance report of it to the Board.
13. That, the occupier shall install CAAQMS and PM10 analyzer with connectivity to website of the Board, within 03 months, failing which Environmental Compensation shall be levied from date of issued of this Consent to operate(CTO);
14. That, the occupier shall submit applications for renewal of consent under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 again 120 days prior to the date of expiry of this consent i.e. 30.09.2023 with requisite fee and documents showing compliance of all of the above conditions.
15. That, the occupier shall do excavation and dispatch of Tailings maximum up to @1MTPA each from the Tailing ponds of Kiriburu and Meghatuburu Iron ore mines keeping the total production within the approved EC sanctioned capacity of 16 MTPA i.e. 7.5 MTPA of Kiriburu Iron Ore mine and 8.5 MTPA from Meghatuburu Iron Ore Mines;

(B) General Conditions :

- (1) That, the occupier shall maintain the **National Ambient Air Quality Standard** given below:

S N	Pollutant	Time Weighted Average	Concentration in Ambient Air	
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Govt.)
(1)	(2)	(3)	(4)	(5)
1.	Sulphur Dioxide (SO ₂), µg/m ³	Annual 24 hours	50 80	20 80
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual 24 hours	40 80	30 80
3.	Particulate Matter (size less than 10 µm) or PM ₁₀ , µg/m ³	Annual 24 hours	60 100	60 100
4.	Particulate Matter (size less than 2.5 µm) or PM _{2.5} , µg/m ³	Annual 24 hours	40 60	40 60
5.	Ozone(O ₃), µg/m ³	8 hours 1 hour	100 180	100 180
6.	Lead (Pb) µg/m ³	Annual 24 hours	0.50 1.0	0.50 1.0
7.	Carbon Monoxide (CO) mg/m ³	8 hours 1 hour	02 04	02 04
8.	Ammonia (NH ₃) µg/m ³	Annual 24 hours	100 400	100 400
9.	Benzene (C ₆ H ₆) µg/m ³	Annual	05	05
10.	Benzo(a) Pyrene(BaP) Particulate Phase only ng/m ³	Annual	01	01
11.	Arsenic (As) ng/m ³	Annual	06	06
12.	Nickel (Ni) ng/m ³	Annual	20	20
Note : Serial no. 1 to 4 – Mandatory Serial no. 5 to 12 As applicable for specific type of industry.				

- (2) That, the occupier shall maintain the emission quality within the standard and the quantity, as follows:

S N	Parameter	Standard
1	Particulate Matter	100 mg/ Nm ³

- (3) That, the occupier shall keep process effluent in close-circuit and the quality of effluent from other sources in conformity with the standard (s) and the discharge quantity as below:

S N	Parameter	Standard
1	Total Suspended Solids	100 mg/L
2	BOD	30 mg/L
3	Oil & Grease	10 mg/L
4	COD	250 mg/L

- (4) That, the occupier shall dispose of solid wastes as follows:

S N	Waste Type	Mode of Disposal
1	Hazardous Carbonaceous Wastes	In co-processing in high temperature furnaces or kilns
2	Hazardous Non-Carbonaceous Wastes	In TSDF
3	Non-Carbonaceous Non-Hazardous solid wastes/ Mine Over Burden	As a substitute of Soil or Mineral

- (5) That, the occupier shall keep D G Set(s) within acoustic enclosure and shall keep the height(s) of exhaust pipe(s) as per Central Pollution Control Board norm.
- (6) That, the occupier shall install and maintain Central Ground Water Board/ State Ground Water Directorate approved system of rain water harvesting-cum-ground water recharge and submit the photographic view of the structures within a month.
- (7) That, the occupier shall grow and maintain greenery of the project in the periphery and other available spaces and shall continue enhancing its plant density and biodiversity.
- (8) That, the occupier shall submit environmental statement with supporting stoichiometric calculations analyses reports, every year latest by 30th September of the next financial year.
- (9) That, the occupier shall submit report(s) duly monitored and issued by an NABL accredited / ISO 9001:2008 and OHSAS 18001:2007 certified laboratory in compliance sub-para (2), (3), (4) and (5) of paragraph 3 of this CTO yearly at required periodicity.

- (10) That, this CTO is valid subjected to the validity of mining Lease/Mining Plan/Ecofriendly/Environmental Clearance, if applicable. In case of no renewal of Mining Lease/Mining Plan, this consent shall be treated as revoked automatically.
- (11) That, this CTO is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ occupier.
- (12) That, this CTO shall not in any way, adversely affect or jeopardize the legal proceeding, if any, instituted in the past or that could be, instituted against you by the State Board for violation of the provisions of the Act or the Rules made there under.
- (13) That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Water (Prevention & Control of Pollution) Cess Act, 1977; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and Rules made there under.
4. That, this CTO shall not absolve the occupier from making compliance of other statutory prescribed under any law or direction of courts or any other instrument for the time being in force.
5. That, this CTO is being issued on the basis of information/ documents/ certificate submitted by the unit. This CTO will be revoked if any of the information/documents/certificates/undertaking given by the occupier is found false/fictitious/forged in future.
6. The Order shall be valid subject to compliance of all other legal requirements applicable to the unit.
7. The State Board reserve the right to revoke, withdraw or make any reasonable variation / change / alteration in conditions of this consent.

This is issued with the approval of the Competent authority

Memo No. : JSPCB/HO/RNC/CTO-9151117/2020/1890

DINESH
PRASAD
SINGH
Digitally signed by
DINESH PRASAD
SINGH
Date: 2020.12.07
19:23:05 +05'30'
(Dinesh Prasad Singh)
Environmental Engineer
Dated : 2020-12-07

Copy to: M/s KIRIBURU-MEGHAHATUBURU IRON ORE MINES. Noamundi, West Singhbhum/
Chief Inspector of Factories, Ranchi / Director of Industry, Govt of Jharkhand, Ranchi/ Deputy
Commissioner, West Singhbhum/ Regional Officer, Regional Office-Cum-Laboratory, Jamshedpur
for information & necessary action.

DINESH
PRASAD
SINGH
Digitally signed by
DINESH PRASAD
SINGH
Date: 2020.12.07
19:23:16 +05'30'
(Dinesh Prasad Singh)
Environmental Engineer

ANNEXURE 14- CORPORATE ENVIRONMENTAL VISION, POLICY AND RESPONSIBILITY OF SAIL

CORPORATE ENVIRONMENTAL VISION, POLICY AND RESPONSIBILITY OF SAIL PAGE-1

Corporate Environmental Vision, Policy and Responsibility

Corporate Environmental Vision Statement:

To lead the way in building an environmentally sustainable future for the Indian iron & steel industry by integrating environmental and stakeholder concerns through resource optimisation and the adoption of cleaner technologies and best practices.

Corporate Environmental Policy

Steel Authority of India Limited, the largest steel producer of India, in its endeavour to maintain a clean and sustainable environment in and around its plants and mines, is committed to:

- i. Integrate sound environmental practices in all its activities.
- ii. Comply with legal and other requirements pertaining to the environment, forests and wildlife and volunteer to go beyond.
- iii. Contribute towards mitigation of climate change through the adoption of cleaner and energy efficient technologies.
- iv. Promote development of innovative environment-friendly processes and products.
- v. Restore ecosystems in mined out landscapes and abandoned sites through ecological restoration.
- vi. Integrate the principle of “reduce, recover, recycle and reuse” in its operations for conservation of natural resources to ensure a sustainable future.
- vii. Strive for continual improvement of environmental performance by setting and achieving challenging targets.
- viii. Ensure regular monitoring and review of environmental performance through a robust audit mechanism and a transparent reporting system.
- ix. Continuously monitor emissions, discharges and ambient air quality and make data available in the public domain.
- x. Communicate environmental performance to all stakeholders.
- xi. Improve employee commitment and responsibility towards environment protection through capacity building.
- xii. Promote environmentally responsible behaviour amongst contractual workforce and suppliers.

Strategies:

To ensure sustainable future and realise the vision, the company has planned some strategic action points, which are summarised below, taking into consideration that the old production units shall co-exist with the new units installed/being installed under the ongoing modernisation-cum-expansion schemes for the coming few years:

- Implementation of sound environmental practices in operations and progressively adopting best available cleaner technologies for minimizing emissions and discharges.

- Integration of four 'R's principle of Reduce, Recover, Recycle and Reuse in operation for reducing consumption of natural resources through minimising waste generation, maximising waste utilisation and optimising use of available resources.
- Reduce water consumption through improving water management practices and adopting other measures, like centralised and local recycling.
- Minimising direct and indirect impacts of mining on surrounding forests and wildlife through periodic monitoring using advanced methods, developing and implementing Site Specific Conservation Plans and other measures.
- Bio-diversity conservation through conducting bio-diversity assessment & management studies, periodic monitoring and stakeholder engagement.
- Ecological restoration of mined out areas and abandoned sites through adoption of Progressive and Integrated mine closure plans (PMCP & IMCP).
- Undertaking planned massive plantation through plantation drives at units, social forestry, creating chain of nurseries and Joint Forest Management (JFM) with state forest departments to enhance ecosystem services.
- Minimising impact of operations on environment by developing technologies for maximising use of resources and enhancing utilisation/ management of wastes through well-equipped R&D facility.
- Promoting use of renewable sources of energy and green fuels for reducing dependence on conventional energy sources.
- Monitoring, reviewing and reporting environmental parameters and clearance conditions, for compliance and improvement.
- Strengthening of environmental administration and management reporting structure.
- Enhancing commitment towards environment protection amongst employees, suppliers & contractors through augmenting employee awareness, increasing competency, capacity building and creating knowledge platforms.
- Implementing an Environmental Management Systems (EMS) having focus on continual improvement, on review, on prevention or mitigation of adverse environmental impacts at all plants / units.

ANNEXURE 15- CERTIFICATE OF REGISTRATION FOR ISO 14001:2015 ENVIRONMENT MANAGEMENT SYSTEM OF KIOM & MIOM, SAIL



Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

Kiriburu Iron Ore Mines
Bokaro Steel Plant
Steel Authority of India (SAIL)
District West Singhbhum
Kiriburu 833 222
Jharkhand
India

Holds Certificate No:

EMS 700392

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

The Mining, Processing, Loading and Dispatch of Iron Ore.

For and on behalf of BSI:


Chris Cheung, Head of Compliance & Risk - Asia Pacific

Original Registration Date: 2018-11-13

Latest Revision Date: 2021-12-03

Effective Date: 2021-11-13

Expiry Date: 2024-11-12

Page: 1 of 1



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An electronic certificate can be authenticated [online](https://www.bsi-global.com/ClientDirectory).

Printed copies can be validated at www.bsi-global.com/ClientDirectory or telephone +91 11 2692 9000.

Further clarifications regarding the scope of this certificate and the applicability of ISO 14001:2015 requirements may be obtained by consulting the organization.

This certificate is valid only if provided original copies are in complete set.

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.



Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

Meghahatuburu Iron Ore Mines
Steel Authority of India Ltd.
Raw Materials Division (RMD)
Post: Meghahatuburu
District: Paschim Singhbhum 833 223
Jharkhand
India

Holds Certificate No:

EMS 698550

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

Mining of Iron Ore, Processing, Loading and Dispatch.

For and on behalf of BSI:


Chris Cheung, Head of Compliance & Risk - Asia Pacific

Original Registration Date: 2018-09-21

Latest Revision Date: 2021-09-16

Effective Date: 2021-09-21

Expiry Date: 2024-09-20

Page: 1 of 1



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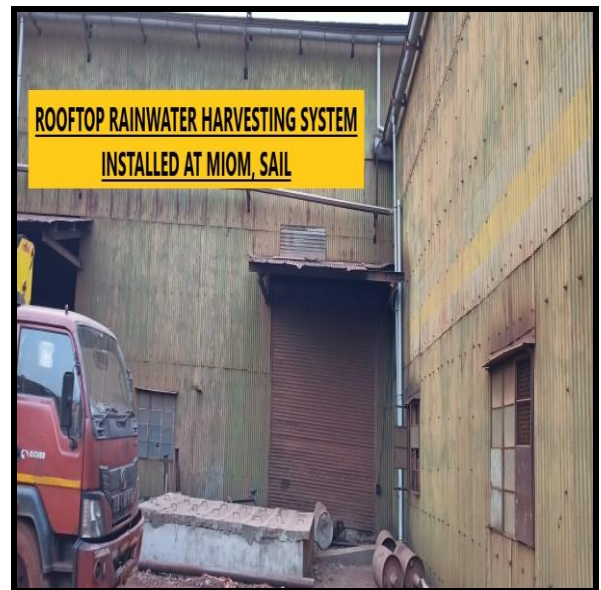
Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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ANNEXURE-15: B- CERTIFICATE OF REGISTRATION FOR ISO 14001:2015 ENVIRONMENT MANAGEMENT SYSTEM OF MIOM, SAIL

**ANNEXURE 16- PHOTOGRAPH COVERING ROOF TOP & CATCHMENT
POND FOR RAIN WATER HARVESTING SYSTEM OF KIOM- MIOM, SAIL**



ANNEXURE-16: A- ROOFTOP RAINWATER
HARVESTING SCHEME INSTALLED AT KIOM
GENERAL OFFICE SHOWING COLLECTION, KIOM,
SAIL



ANNEXURE-16: C- ROOFTOP RAINWATER
HARVESTING SYSTEM SHOWING WATER
COLLECTION PIPE INSTALLED AT MEGHAHATUBURU
IRON ORE MINES , SAIL



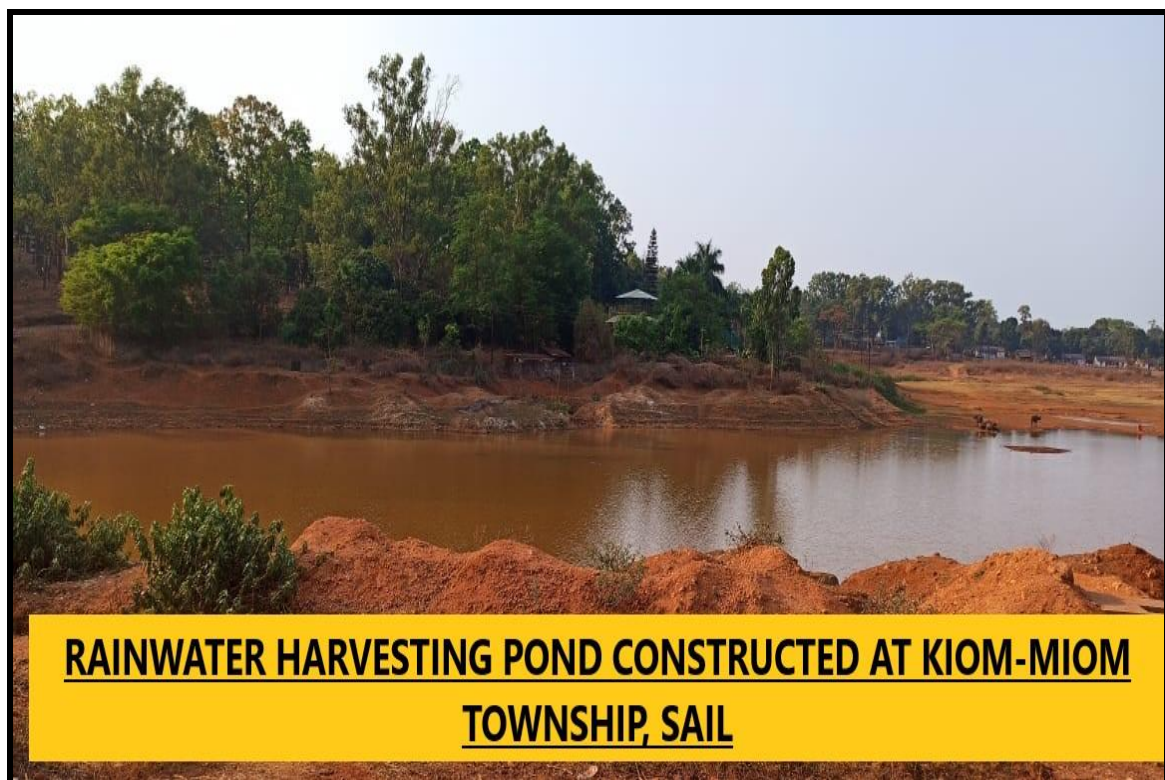
ANNEXURE-16: B- ROOFTOP RAINWATER
HARVESTING SCHEME INSTALLED AT KIOM
GENERAL OFFICE SHOWING COLLECTION
RECHARGE PIT, KIOM, SAIL



ANNEXURE-16: D- ROOFTOP RAINWATER
HARVESTING INSTALLED SHOWING WATER
COLLECTION PIPE AT MEGHAHATUBURU IRON ORE
MINES, SAIL

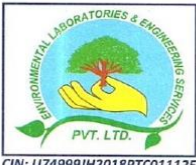


ANNEXURE-16: E- 150X100 METER WATER POND CONSTRUCTED TO RECIEVE STORM WATER FROM KIOM-MIOM TOWNSHIP TO RECHARGE GROUND WATER



ANNEXURE-16: F- RAINWATER HARVESTING POND CONSTRUCTED AT KIOM-MIOM TOWNSHIP, SAIL


ANNEXURE 17- AMBIENT AIR QUARTERLY MONITORING REPORT THROUGH JSPCB OF KIOM-MIOM, SAIL



ENVIRONMENTAL LABORATORIES & ENGINEERING SERVICES PVT. LTD.
CIN: U74999JH2018PTC011125

ENVIRONMENTAL LABORATORIES & ENGINEERING SERVICES PVT. LTD.

PLOT NO-30, MANSAROVAR ENCLAVE, TUPUDANA
HATIA, RANCHI-834003 (JHARKHAND)
Email: info@elespl.co.in; eles.ranchi@gmail.com
Website : www.elespl.co.in
GST NO:- 20AAECE9713D1Z4 ☎ : 0651-2290103, 9931289451



ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 CERTIFIED
NABL Accredited & JSPCB Certified Lab. for
Environmental Pollution Monitoring & Analysis

TEST REPORT

Test Report No. : ELES/RNC/2022/1222 Application No. : 13350162	Report Release Date : 16.06.2022 Application Date : 31.05.2022
----------------------------------------------------------------------------------	---------------------------------------------------------------------------------

CUSTOMER DETAILS		SAMPLE DETAILS	
Customer Name	: Kiriburu- Meghahatuburu Iron Ore Mines	Sampling Date	: 06.06.2022 to 07.06.2022
Address	: Kiriburu- Meghahatuburu Iron Ore Mines Dist- West Singhbhum	Sample Received Date	: 08.06.2022
		Type of Sample	: Ambient Air
		Sampling Procedure	: ELES/DOC/SMPL/02
Plant Status	: Operational	Sample Drawn By	: ELES Pvt. Ltd.
		Period of Analysis	: 08.06.2022 to 16.06.2022

METEOROLOGICAL INFORMATION			
1	Average Temperature (°C)	: 36	2 Barometric Pressure (mmHg)
3	Relative Humidity (%)	: 62	4 Weather Condition
			: Clear

Parameters			Particulate Matter (PM10)	Fine Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO ₂)	Nitrogen Di-Oxide (NO ₂)	
Test Protocol			IS 5182 (P-23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)	
Locations	Limit	Unit	100	60	80	80	
			µg/m ³	µg/m ³	µg/m ³	µg/m ³	
Near R& D Centre	11:40 – 15:38		68	35	<5.0	10.1	
	15:38 – 19:40				6.1	13.7	
	19:47 – 23:39		57		<5.0	11.4	
	23:39 – 03:42				5.8	15.6	
	03:49 – 07:42		63		7.7	22.6	
	07:42 – 11:31				6.9	20.4	
Sample ID ELES/RNC/PCB/AA/4775	Average		62	35	5.7	15.6	
Near Mining Site Office	11:52 – 15:51		79	40	5.5	12.8	
	15:51 – 19:47		60		<5.0	9.4	
	19:55 – 23:48				6.4	15.7	
	23:48 – 03:52		72		<5.0	8.6	
	03:58 – 07:50				5.9	16.1	
	07:50 – 11:45				6.7	19.5	
Sample ID ELES/RNC/PCB/AA/4776	Average		70	40	<5.0	13.7	

Page 1 of 2

The Document stated as Test Report, is issued by the Laboratory under General Terms and Conditions, only on Company letter head in pre-approved format. The results shown in the Test Report refer or relates only to the job/analysis done by the Laboratory only. The information stated on the Test Report reflects the findings done by the Laboratory at the time of involvement only and within the limits of client's instructions. The Laboratory is responsible for all the information or data provided on the report, except the information which is provided by the client. The Report cannot be reproduced except in full and any part of the report is not taken out of context, without prior written approval of the Laboratory. The Report in full or in part shall not be published, advertise, used for any legal actions unless prior permission has been secured from the Management of the Laboratory. Attention is drawn to the limitation of liability, compensation and jurisdiction issues. Any unauthorized alteration & falsification of the content or appearance of the Test Report is unlawful and offenders may be prosecuted to the fullest extent of the law. All the samples are retained for 30days from the Date of release/issue of the Test Report. The samples from Regulatory bodies are to be retained as specified. Any type of Observations or Complaints regarding the Reports shall be done within 15days from the Date of Test Report released/issued. After the time period stated before, no complaints will be accepted. The entire Time schedule mentioned in Test Report is in 24hours format. Abbreviation used: N/A (Not Applicable); BDL (Below Detection Limit); LDL (Lower Detection Limit).

"Save Environment, Save Future"

ANNEXURE-17: A- AMBIENT AIR QUALITY MONITORING REPORT THROUGH JSPCB OF KIRIBURU IRON ORE MINE,
SAIL



INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

ISO 9001:2015 (QMS), ISO 45001:2018 (OHSAS); JSPCB Accreditation

A-13, Saket Vihar, Harmu Housing Colony, Near Sohrai Bhawan, Ranchi, Jharkhand – 834002.

Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Formate No.- IEM-EEL-F-049

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 14-10-2022	Test Report No.: RN-220926001A1	
Sample ID: 221010-AP-0008	Sample Description: Ambient Air	
Challan No./P.O. No.: 14361131	Challan No./ P.No. Date: 26-09-2022	
Issued to: Kiriburu - Meghahatuburu Iron Ore Mines District - West Singhbhum		
Type of Industry: Iron Ore Mine	Customer Representative: R P Selvam	
Sample Drawn by: IEM Team	Sampling Date: 08-10-2022 to 09-10-2022	
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Mining Shelter	Co-Ordinates: 22°06'25.59"N 85°17'00.39"E	
Field Meterological Information	A. Tem.(°C): 29	R.H.(%): 72
	W.C.: Partly Cloudy	W.D.: NNW to SSE
Sample Receiving date: 10-10-2022	Testing Started: 10-10-2022	Testing Ended: 13-10-2022

----Test Results----

Sl. No.	Parameters	Test Method	Unit	Result	Limits
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	µg/m ³	80.36	100
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	µg/m ³	17.39	80
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	µg/m ³	30.64	80

----End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule – 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Pandab Mahto & Team

Checked By
(B. N. Kumar)
(Technical Manager)

Authorized Signature
(Dr. S. C. Jain)
(Director)

Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.

Page 1 of 1

ANNEXURE-17: B- AMBIENT AIR QUALITY MONITORING REPORT THROUGH JSPCB OF MEGHAHATUBURU IRON ORE MINE, SAIL

ANNEXURE 18- PHOTOGRAPHS OF VARIOUS CSR ACTIVITIES CONDUCTED BY KIOM-MIOM, SAIL



ANNEXURE-18: A- MISS GORBARI SOY (SUB-JUNIOR) & MISS ANSHIKA KUMARI SINGH (JUNIOR) IN RECURVE CATEGORY WON THE BRONZE MEDALS IN 2ND KHELO INDIA EAST ZONE ARCHERY CHAMPIONSHIP HELD AT SAI, NCOE, KOLKATA ON 5/6/2022



TREATMENT OF PATIENTS UNDER CSR SCHEME OF MEGHAHATUBURU IRON ORE MINES AT KIRIBURU- MEGHAHATUBURU GENERAL HOSPITAL

ANNEXURE-18: C- TREATMENT OF PATIENTS UNDER CSR SCHEME OF MEGHAHATUBURU IRON ORE MINES UNDER THE CSR SCHEME OF KIRIBURU – MEGHAHATUBURU GENERAL HOSPITAL



ANNEXURE-18: B- MR MANGAL SOY STUDENT OF CLASS 9TH OF PROJECT CENTRAL SCHOOL, KIRIBURU HAS THE WINNER OF THE COMPETITION THE ART CYCLE OF THE INTERNATIONAL FESTIVAL “THE PLANET OF ART- 2022” ORGANIZED BY THE KAZAKHSTAN NATIONAL FEDERATION OF THE CLUB UNESCO



ANNEXURE-18: D- HON’BLE CHAIRMAN & DIRECTOR TECHNICAL VISIT AT SARANDA SUVAN CHATRAVAS



ANNEXURE-18: E- FABRIC WEAVING UNDER THE CSR SCHEME OF MEGHAHATUBIURU IRON ORE MINES AT SAUBHAGYA SELF EMPLOYMENT CENTER



ANNEXURE-18: G- MASK STITCHING & MAKING TRAINING UNDER CSR (KIRAN SELF-EMPLOYMENT CENTER) KIOM, SAIL DURING COVID 19 PANDEMIC



ANNEXURE-18: F- STUDENTS STUDY AT SARANDA SUVAN CHATRAVAS KIOM- MIOM, SAIL



ANNEXURE-18: H- THE KHELO INDIA (EAST ZONE) ARCHERY COMPETITION WAS HELD ON 7 AUGUST AT THE SALT LAKE STADIUM IN KOLKATA. IN THIS, YOUNG ARCHER SHIV SHANKAR MAITI OF EKLAVYA ARCHERY ACADEMY[EAA], RUN BY SAIL'S KIRIBURU MINE MANAGEMENT, WON THE BRONZE MEDAL IN THE MEN'S SENIOR CATEGORY AND ANSHIKA KUMARI SINGH WON A SILVER MEDAL IN JUNIOR WOMEN'S SECTION



Mass Communication



Education & Hostel for Village Students



Eklavya Archery Academy



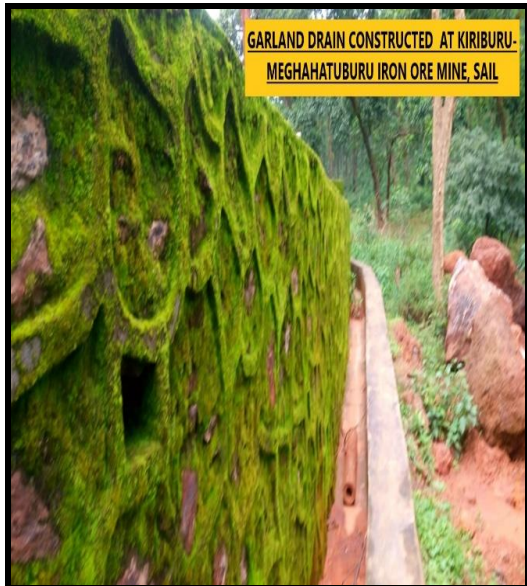
Kiron- Women Self Employment



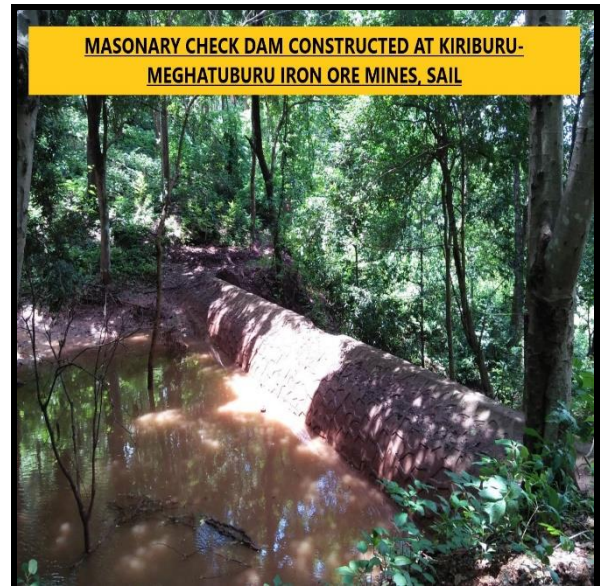
हर किसी की जिन्दगी से जुड़ा हुआ है सेल
There's a little bit of SAIL in everybody's life

ANNEXURE-18: I- VARIOUS SOFT SKILL DEVELOPMENT PROGRAMMES ORGANISED BY RTC KIOM

ANNEXURE 19- PHOTOGRAPHS SHOWING VARIOUS SILT EROSION CONTROL ARRANGEMENTS CONSTRUCTED BY KIOM-MIOM, SAIL & COPY OF APPROVAL LETTER OF CATCHMENT AREA TREATMENT PLAN FOR SARANDA FOREST DIVISION PREPARED BY IIT KGP FOR KIOM- MIOM, SAIL



ANNEXURE-19: A- GARLAND DRAIN CONSTRUCTED AT KIRIBURU- MEGHAHATUBURU IRON ORE MINE BY MEGHAHATUBURU IRON ORE MINES, SAIL



ANNEXURE-19: C- MASONARY CHECK DAM CONSTRUCTED AT KIRIBURU-MEGHATUBURU IRON ORE MINES, SAIL



ANNEXURE-19: B- GARLAND DRAIN CONSTRUCTED AT MEGHAHATUBURU IRON ORE MINES, SAIL



ANNEXURE-19: D- MASONARY CHECK DAM CONSTRUCTED AT KIRIBURU-MEGHATUBURU IRON ORE MINES, SAIL



Office of the Principal Chief Conservator of Forests, Jharkhand
Van Bhawan, Doranda, Ranchi-834002

Email:- pccf-jhk@gov.in, Phone No. : 0651-2481909 (T), 2480413 (F)



जयों के संरक्षण !
जयों के सुरक्षण !

Office Order No. : 06 Dated : 01.02.2022

Sanction order of Catchment Area Treatment (CAT) Plan for Saranda Forest Area with reference to the renewal of mining lease covering 644.26 ha of forest land for Kiriburu-Meghahataburu group of Iron Ore Mines (Total lease area 1936.96 ha) in favour of M/s Steel Authority of India Limited (SAIL) in West Singhbhum District of Jharkhand

Cd
23/02
Preparation of the instant Catchment Area Treatment (CAT) Plan was started by M/s Steel Authority of India Limited (SAIL) in compliance to the condition no. 2 with reference to the renewal of mining lease covering 644.26 ha of forest land for Kiriburu-Meghahataburu group of Iron Ore Mines (Total lease area 1936.06) in favour of M/s Steel Authority of India Limited (SAIL) in West Singhbhum District of Jharkhand vide of Government of India, Ministry of Environment & Forests (FC Division) letter no. F.No.8-69/1991-FC(Pt) dated 29.03.2010.

The aforesaid condition laid by the Central Government reads as below:

"As the area is fed by Koina & Karo river system, the user agency will facilitate the preparation of a Comprehensive CAT Plan to be implemented by the Forest Department at the cost of all the lease holders proportionately."

Initially, M/s SAIL placed work order to IIT, Khargapur for preparation of CAT Plan for the surrounding area of Kiriburu-Meghahataburu Iron Ore Mines on 24.09.2010.

A detailed presentation was made by Professor Khanindra Pathak, Department of Mining Engineering, IIT, Kharagpur in July, 2013 in the chamber of PCCF, Jharkhand. Subsequently, work order for the job of preparation of Comprehensive CAT Plan for Saranda Forest area fed by Karo and Koina river system was awarded to IIT, Kharagpur by M/s SAIL.

First Presentation of Comprehensive CAT Plan was done by IIT, Kharagpur on 21.11.2014 and deliberated before PCCF, Jharkhand, PCCF & Executive Director, Wasteland Development Board, Jharkhand (the Nodal Officer of FC Act in Jharkhand), PCCF Wildlife, APCCF, CAMPA, and RCCF, Jamshedpur along with SAIL Officials. The Comprehensive CAT Plan report for Saranda Forest area fed by Karo and Koina river system was finalized by IIT, Kharagpur incorporating the suggestions made in the deliberation held on 21.11.2014.

Subsequently, a meeting-cum-presentation on Comprehensive CAT Plan was held on 13.05.2015 at Nepal House, Ranchi in presence of Principal Secretary, Forest, PCCF (HoFF), PCCF (Wildlife-cum-CWLW), PCCF & Executive Director, Wasteland Development Board, and

the amount as required on pro-rata basis prior to operationalization of mines. Failing this, land will not be released for mining purpose.

- 18) Third Party evaluation of implementation of CAT Plan will be done after 4 years and 8 years. After Third Party evaluation, any new work items suggested therein in such evaluation report shall be undertaken by the user agencies. An undertaking from the user agencies shall be submitted before DFO, Saranda that they shall deposit such additional cost for new work items.
- 19) Though provisions have been made towards cost escalation in the plan, yet the User Agencies shall submit an Undertaking to the DFO, Saranda to the effect that they will deposit extra cost of the Plan beyond the cost escalation provision owing to increase in wage rate, cost of materials etc. in due course of time as well as consequent upon revision of the plan, if any, as and when given effect to by the competent authority.

Copy of this Sanction Order is being sent to the Additional Chief Secretary, Department of Forest, Environment & Climate Change, Govt. of Jharkhand and other concerned officers.

sd/-
Principal Chief Conservator of Forests (HoFF)
Jharkhand, Ranchi

Memo No. 165 dated 01.02.2022

Copy forwarded to:

1. Regional Chief Conservator of Forest, Singhbhum, Jamshedpur with a request to make available a copy of this Sanction Order to all the User Agencies for time-based implementation and monitoring of the said CAT Plan.
2. Conservator of Forest, Chaibasa / Divisional Forest Officer, Saranda Division for information and necessary action.

Principal Chief Conservator of Forests (HoFF)
Jharkhand, Ranchi

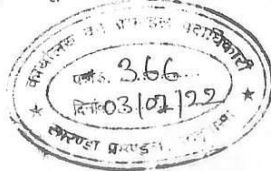


कार्यालय : क्षेत्रीय मुख्य वन संरक्षक, सिंहभूम, जमशेदपुर।

ज्ञापक :- 220 दिनांक :- 02-02-2022

प्रतिलिपि, वन संरक्षक, प्रादेशिक अंचल, चाईबासा / वन प्रमंडल पदाधिकारी, सारण्डा वन प्रमंडल,

चाईबासा को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

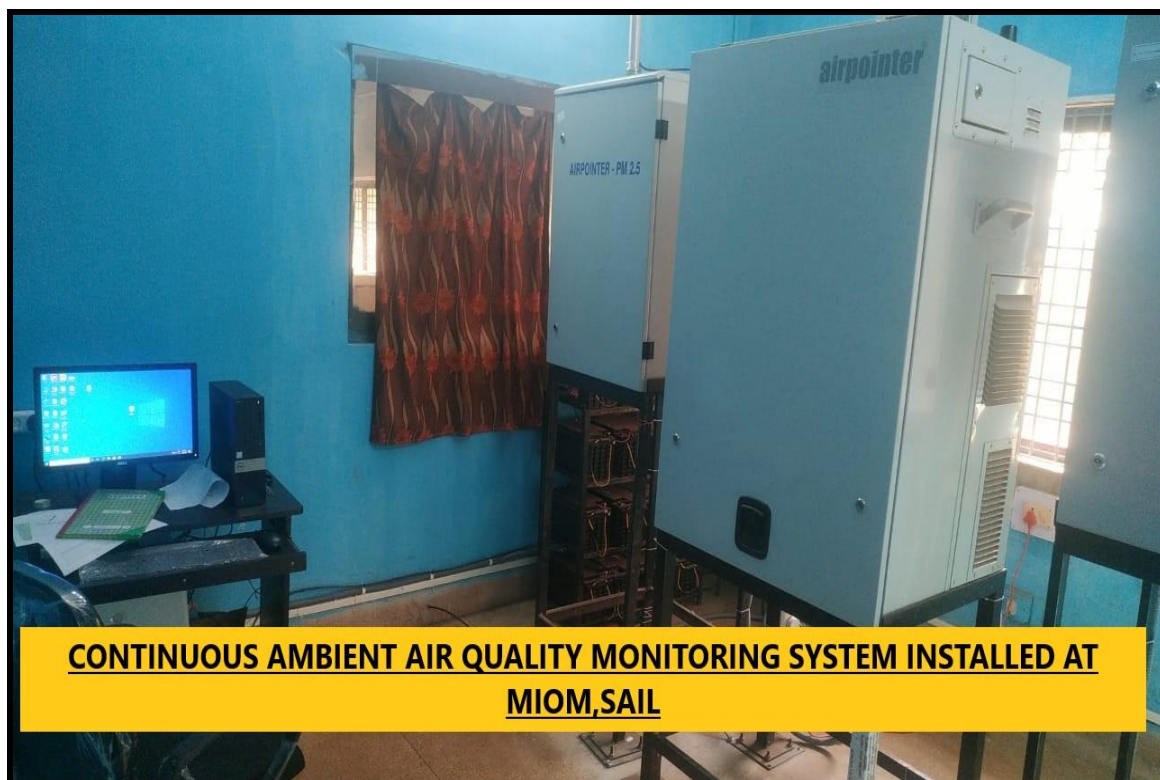


क्षेत्रीय मुख्य वन संरक्षक,
सिंहभूम, जमशेदपुर।

ANNEXURE 20- PHOTOGRAPHS SHOWING CONTINUOUS AMBIENT AIR QUALITY MONITORING SYSTEM (CAAQMS) INSTALLED AT MIOM, SAIL



ANNEXURE-20: A- CONTINUOUS AMBIENT AIR QUALITY MONITORING SYSTEM INSTALLED AT MEGHAHATUBURU IRON ORE MINES, SAIL



ANNEXURE-20: B- CONTINUOUS AMBIENT AIR QUALITY MONITORING SYSTEM INSTALLED AT MEGHAHATUBURU IRON ORE MINES, SAIL

ANNEXURE 21- KOINA RIVER UPSTREAM & DOWNSTREAM WATER QUALITY DATA REPORT FOR THE PERIOD OF –APRIL 2022 TO SEPTEMBER 2022 BY KIOM-MIOM, SAIL



STEEL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
KIRIBURU-MEGHAHATUBURU IRON ORE MINES

RIVER WATER QUALITY

(A) Koina River – Upstream of Mines

Period	pH	Turbidity	TDS	TSS	Total hardness as carbonate	Dissolved oxygen	BOD (3 days 27°C)	Iron
Unit	-	NTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l(as Fe)
Requirement	6.0-9.0	-	1500	-	-	4	3	0.5
April'22	6.8	2.9	80.9	20.89	190.5	6.8	BDL	0.10
May'22	6.75	3.2	75.69	25.6	187.36	6.9	BDL	0.14
June'22	6.4	3.0	85.23	26.41	204.98	6.4	BDL	0.09
July'22	6.92	3.1	67.24	14.3	197.22	7.1	BDL	<0.1
Aug'22	6.79	3.8	74.18	17.1	207.72	6.7	BDL	0.11
Sep'22	6.68	3.9	81.2	22.7	213.34	6.5	BDL	0.11

(A) Koina River – Downstream of Mines

Period	pH	Turbidity	TDS	TSS	Total hardness as carbonate	Dissolved oxygen	BOD (3 days 27°C)	Iron
Unit	-	NTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l(as Fe)
Requirement	6.0-9.0	10	1500	-	-	4	3	0.5
April' 22	6.72	3.1	81.2	20.1	190.35	6.5	BDL	0.10
May'22	6.89	2.9	83.6	19.3	189.74	6.91	BDL	0.14
June'22	6.90	3.2	85.9	18.6	192.71	6.78	BDL	0.09
July'22	6.96	3.4	71.24	17.4	196.22	6.8	BDL	<0.12
Aug'22	6.92	3.3	69.18	15.9	196.24	6.79	BDL	0.1
Sep'22	6.76	3.4	72.2	17.6	188.3	6.81	BDL	0.1

* Requirement/specification as per 2296:1992 for Class "C" water

** BDL=Below Detection Limit. Minimum detection limit of B.O.D is 2 mg/L

EC Compliance – KIOM - MIOM

ANNEXURE-21: A- KOINA RIVER UPSTREAM & DOWNSTREAM WATER QUALITY DATA REPORT FOR THE PERIOD OF – APRIL 2022 TO SEPTEMBER 2022 BY KIOM-MIOM, SAIL

**ANNEXURE 22- GROUND WATER QUALITY REPORT IN DUG WELL
FOR APRIL 2022 – SEPTEMBER 2022 BY KIOM-MIOM, SAIL**



STEEL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
MEGHAHATUBURU IRON ORE MINES

GROUND WATER QUALITY

LOCATION : DUG WELL IN KUMDIH VILLAGE

Parameter	Acceptable Limit*	Apr'22	May'22	Jun'22	Jul'22	Aug'22	Sep'22
pH	6.5 – 8.5	6.68	6.85	6.69	6.62	6.71	6.76
Dissolved Solids(mg/l)	500	38.40	38.21	35.89	33	37.1	39.4
Total hardness (mg/L)	200	27.20	25.60	20.45	18.36	20.12	23.1
Dissolved oxygen (mg/L)	-	7.1	7.6	7.9	7.6	7.4	7.1

* as per Drinking Water Specification IS 10500 : 2012

ANNEXURE-22: A-- GROUND WATER QUALITY REPORT IN DUG WELL FOR THE PERIOD OF – APRIL 2022 TO SEPTEMBER 2022 BY MEGHAHATUBURU IRON ORE MINES, SAIL



STEEL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
KIRIBURU-MEGHAHATUBURU IRON ORE MINES

GROUND WATER QUALITY


LOCATION : DUG WELL IN KARAMPADA / BUNKAR HUTTING VILLAGE

Parameter	Acceptable Limit*	Apr'22	May'22	Jun'22	Jul'22	Aug'22	Sep'22
pH	6.5 – 8.5	6.9	6.8	6.6	5.90	6.7	6.6
Dissolved Solids(mg/l)	500	39.2	37.50	35.89	44.2	47.4	45.2
Total hardness (mg/L)	200	29.5	30.20	20.45	29.32	31.2	34.32
Dissolved oxygen (mg/L)	-	7.1	7.5	7.9	7.2	7.1	6.9

* as per Drinking Water Specification IS 10500 : 2012

ANNEXURE-22: B- GROUND WATER QUALITY REPORT IN DUG WELL FOR THE PERIOD OF – APRIL 2022 TO SEPTEMBER 2022 BY KIRIBURU IRON ORE MINES, SAIL

**ANNEXURE 23- BLASTING VIBRATION REPORT FOR KIOM-MIOM,
SAIL**

<p>बी.डी.जी (एक्सप्लोसिव्स) BDG (Explosives)</p>	<p>इंडियन ऑयल कॉर्पोरेशन लिमिटेड बी.डी.जी (ई) / एस.एम.एस. एक्सप्लोसिव्स संयंत्र, बोलानी पोष्ट: बोलानी, जिला: केडनझर (ओडिशा) - 758037 Indian Oil Corporation Limited BDG (E) : SMS Explosives Support Plant, Bolani P.O. : Bolani, Dist.-Keonjhar (Odisha) - 758037 website : www.iocl.com</p>	 IndianOil A Maharatna Company
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IOCL/MIOM/BIGVT/21-22/4
12.12.2021

To,
General Manager (Mines)
Meghahatuburu Iron Ores Mines, SAIL BSL
Meghahatuburu

Subject : Submission of Report of Blast Induced Ground Vibration Test.

in response to your request for conducting Blast induced ground vibration study at your mines site for statutory purpose. we conduct Blast induced ground vibration test at your mines.

In line with your requirement we had arranged to conduct the study at your mines site on 11.12.2021. Study was carried out by our end in presence of AGM (Mining) of Meghahatuburu Iron Ore Mines.


We are attaching the Report of the study of Blast Induced Ground vibration test.

Hope this will serve your purpose.

Thanking you.

Yours sincerely

For, Indian Oil Corporation Limited


Adarsh Kesharwani
Asst. Manager(Ops.)

पंजीकृत कार्यालय : जी - 9, अली यावर जंग मार्ग, बान्द्रा (पूर्व) मुम्बई -400 051 (भारत)
Regd. Office : G - 9, Ali Yavar Jung Marg, Bandra (East), Mumbai - 400 051 (India)
CIN : L23201MH1959G01011388



IndianOil

IOC/BOL/BIGV/21-22/04

12.12.2021

**Report of study conducted on Blast Induced Ground
Vibration at Meghahatuburu Iron Ores Mines, BSL, SAIL.**

Objective of the study:

To assess the impact of blast induced ground vibrations on the structures nearest to the blast sites.

Particulars of the study:

Location of study: Meghahatuburu Iron Ores Mines (Central Bench 10),
SAIL, BSL

Date of the study: 11.12.2021

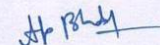
Study conducted For: Meghahatuburu Iron Ores Mines, RMD, SAIL

Study conducted by: Indian Oil Corporation Limited (BDG: Explosives)

IOCL Representatives: Shri Adarsh Kesharwani, Asst. Manager (Operations)

MIOM, SAIL Representative: Sh Sandeep Kr. Bharadwaj, AGM (Mining)


INDIAN OIL CORPORATION LIMITED
BDG - EXPLOSIVES
(A Govt. of India Undertaking)
Bulk Support Plant
A/P.O. BOLANI-768037
Dist - Keonjhar (Odisha)


SANDIP KUMAR BHARGAVA
Asstt. General Manager [Mining]
SAIL-BSL
Meghahatuburu Iron Ore Mines

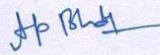
Findings of the study:

Following were the findings of the study conducted

Date of blast	Location of blast	Location of impact assessment	Max PPV(mm/s) in any orthogonal direction	Max corresponding PPV(mm/s) permissible as per DGMS	Remarks
11.12.2021	Central Area	Bench-10	5.177 at 0.004 sec	15	Well within range

The results are well within the ceilings of maximum permissible PPV laid down by DGMS as per the circular ref: DGMS (Tech)/(S&T) Circular No.7 of 1997 dated 29.08.1997.

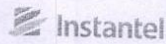

Adarsh Kesharwani
AM (Ops.), Bolani Plant
INDIAN OIL CORPORATION LIMITED
BDG - EXPLOSIVES
(A Govt. of India Undertaking)
Bulk Support Plant
A/P.O. BOLANI-758037
Dist - Keonjhar (Odisha)


SANDIP KUMAR BHARDWAJ
Asstt. General Manager [Mining]
SAIL-BSL
Meghahatuburu Iron Ore Mines

VIBRATION-CUM-BLAST REPORT				
SN	PARTICULARS	REMARKS		
1	Date of Blast	11.12.2021		
2	Location /Bench	Central 10 th bench		
3	Hole Dia (mm)	150		
4	No. of Holes	31		
5	Bench height (m)	10		
	Drilling Parameters			
6	Avg.Depth of the hole (m)	10		
7	Spacing (m)	4.00		
8	Burden (m)	3.00		
9	Block Volume (m3)	3720		
10	Type of Explosives	INDOGEL 600 SERIES		
11	Type of Initiators	NONEL		
12	Average Explosive Charge per hole (Kg)	133.870 Kg		
13	Maximum Explosives Charge per Delay (Kg)	134.370 Kg		
14	Total Primer Used(Kg)	15.500 Kg		
15	Total Bulk Explosives (Kg)	4150.000 Kg		
16	Total Explosive Used	4165.500 Kg		
	VIBRATION MEASUREMENT:			
17	Distance of Vibration M/c from Blast Site	Approx 172.6 m from Blast face		
18	Maxi. PPV at Orthogonal Directions (mm/sec.)	T	V	L
		2.168	2.152	5.163
19	Corresponding Frequency (Hz)	>200	>200	>200
20	Peak Vector Sum	5.177 mm/sec at 0.004 sec.		
	POST BLAST OBSERVATION			
21	Fragmentation	V. Good		
22	Fly Rock	Nil		
23	Muck Profile	As required		


 For Indian Oil Corporation Limited
INDIAN OIL CORPORATION LIMITED
BDG - EXPLOSIVES
 (A Govt. of India Undertaking)
 Bulk Support Plant
 A/P.O. BOLANI-768037
 Dist - Keonjhar (Odisha)


AGM (Mining)
MIOM, BSL, SAIL
 SANDIP KUMAR BHARDWAJ
 Asstt. General Manager [Mining]
 SAIL-BSL
 Meghahatuburu Iron Ore Mines



Event Report

Date/Time Long at 12:23:48 December 11, 2021
Trigger Source Geo: 0.500 mm/s
Range Geo: 254.0 mm/s
Record Time 3.0 sec at 2048 sps
Operator/Setup: Operator/MOIM.MMB

Distance: 172.6 m

Notes

Location: SAIL/MOIM
Client: STEEL AUTHORITY OF INDIA LIMITED
User Name: INDIAN OIL CORPORATION LIMITED
General: MEGHAHATUBURU IRON ORES MINES

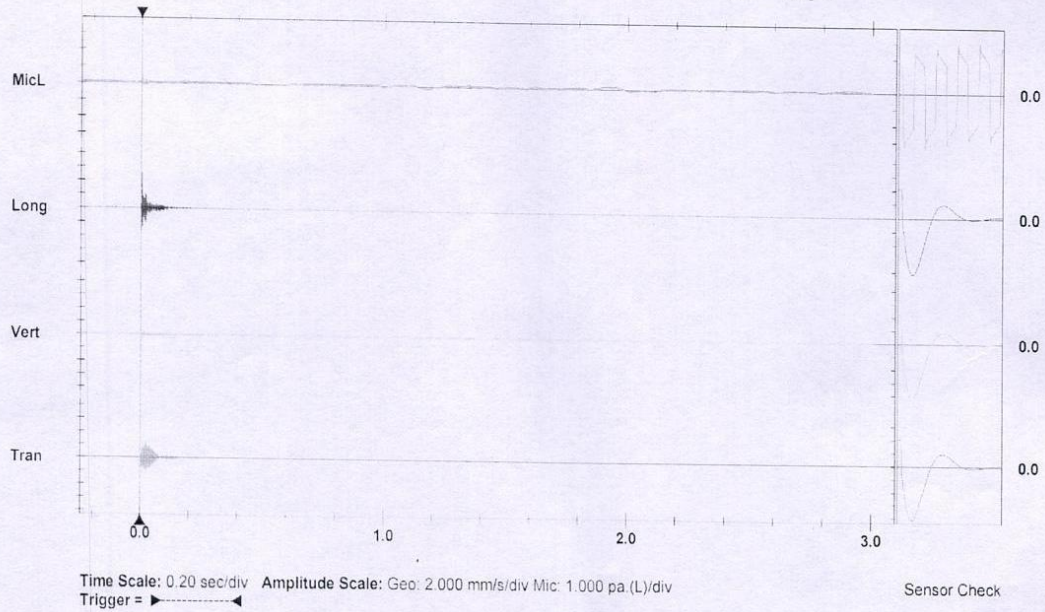
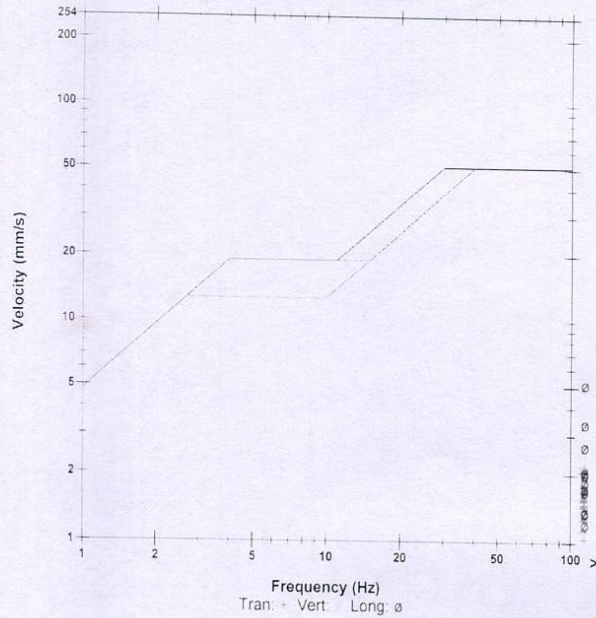
Microphone Linear Weighting
PSPL 89.84 dB(L) at 0.001 sec
ZC Freq >200 Hz
Channel Test Passed (Freq = 19.7 Hz Amp = 1287 mv)

	Tran	Vert	Long	
PPV	2.168	2.152	5.163	mm/s
ZC Freq	>200	>200	>200	Hz
Time (Rel. to Trig)	0.022	0.002	0.004	sec
Peak Acceleration	0.301	0.291	0.633	g
Peak Displacement	0.002	0.002	0.004	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.3	7.3	Hz
Overswing Ratio	4.2	4.6	4.1	

Peak Vector Sum 5.177 mm/s at 0.004 sec

Serial Number UM16986 V 10-89 Micromate ISEE
Battery Level 3.8 Volts
Unit Calibration November 23, 2021 by UES New Delhi
File Name UM16986_20211210130311.IDFW

USBM R18507 And OSMRE



Printed: April 25, 2022 (V 10.72 - 10.72.1)

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ANNEXURE-23: E-BLASTING VIBRATION REPORT FOR KIOM-MIOM SAIL PAGE-5

ANNEXURE 24- AMBIENT AIR QUALITY REPORT FOR THE PERIOD, APRIL 2022 TO SEPTEMBER 2022 FOR KIOM-MIOM, SAIL



STEEL AUTHORITY OF INDIA LIMITED BOKARO STEEL PLANT **KIRIBURU-MEGHAHATUBURU IRON ORE MINES**

AMBIENT AIR QUALITY REPORT

Period : Apr'22 to Sep'22
Sample drawn & analysis by : Sabz Care Environmental Consultancy Pvt. Ltd.
Locations : **KIRIBURU IRON ORE MINE**

Location - 1 : Survey Office
Location - 2 : Hopper
Location - 3 : Hospital
Location - 4 : Hilltop Residential Area

Month	Sampling location	PM10 ($\mu\text{g}/\text{m}^3$)	PM2.5 ($\mu\text{g}/\text{m}^3$)	SO2 ($\mu\text{g}/\text{m}^3$)	NOX ($\mu\text{g}/\text{m}^3$)
Permissible Level		100	60	80	80
April'22	Location - 1	70.00	30.00	23	16
	Location - 2	72.00	31.00	22	17
	Location - 3	-----	27.22	BDL	BDL
	Location - 4	-----	23.78	BDL	BDL
May'22	Location - 1	69.00	28.00	21	16
	Location - 2	70.00	30.00	22	16
	Location - 3	-----	20.00	BDL	BDL
	Location - 4	-----	21.00	BDL	BDL
June'22	Location - 1	65	26	19	15
	Location - 2	67	28	18	16
	Location - 3	-----	19	BDL	BDL
	Location - 4	-----	20	BDL	BDL
July'22	Location - 1	78	41.067	10.46	13.92
	Location - 2	82.02	42.365	10.97	14.183
	Location - 3	63.64	32.49	10.204	12.9
	Location - 4	68.02	37.614	8.163	12.26
Aug'22	Location - 1	76.65	40.90	9.72	15.81
	Location - 2	84.26	45.46	13.39	15.87
	Location - 3	68.80	37.01	10.71	14.37
	Location - 4	67.88	37.54	8.43	11.10
Sept'22	Location - 1	76.52	40.50	10.62	15.43
	Location - 2	83.00	47.33	13.19	17.19
	Location - 3	66.83	34.97	9.52	15.31
	Location - 4	66.40	37.12	8.83	11.86

Note : SO₂ : BDL (Below Detectable Limit) : 4 $\mu\text{g}/\text{m}^3$
NO₂ : BDL (Below Detectable Limit) : 10 $\mu\text{g}/\text{m}^3$

EC Compliance – KIOM - MIOM



STEEL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
KIRIBURU-MEGHAHATUBURU IRON ORE MINES

AMBIENT AIR QUALITY REPORT

Period : Apr'22 to Sep'22
Sample drawn & analysis by : Sabz Care Environmental Consultancy Pvt. Ltd.
Locations : **MEGHAHATUBURU IRON ORE MINE**

Location - 1 : Dumper Shop.
Location - 2 : Mining field Office.
Location - 3 : Hopper
Location - 4 : Township

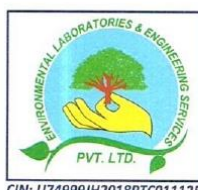
Month	Sampling location	PM10 (µg/m ³)	PM2.5 (µg/m ³)	SO2 (µg/m ³)	NOX (µg/m ³)
Permissible Level		100	60	80	80
April'22	Location - 1	78.02	25.45	BDL	BDL
	Location - 2	77.33	25.35	BDL	BDL
	Location - 3	82.25	27.22	BDL	BDL
	Location - 4	56.70	23.78	BDL	BDL
May'22	Location - 1	76.35	24.37	BDL	BDL
	Location - 2	75.76	24.17	BDL	BDL
	Location - 3	80.68	26.43	BDL	BDL
	Location - 4	54.73	22.70	BDL	BDL
June'22	Location - 1	73.60	22.40	BDL	BDL
	Location - 2	73.40	22.79	BDL	BDL
	Location - 3	78.02	24.96	BDL	BDL
	Location - 4	52.67	21.61	BDL	BDL
July'22	Location - 1	65.34	36.18	10.88	14
	Location - 2	77.18	39.52	9	12.4
	Location - 3	80.03	42.50	12.64	14.09
	Location - 4	57.59	29.60	8.45	13.77
Aug'22	Location - 1	67.80	37.45	11.21	15.49
	Location - 2	78.32	37.30	9.52	13.67
	Location - 3	83.65	45.60	15.47	18.44
	Location - 4	67.26	33.23	9.52	15.3
Sept'22	Location - 1	68.21	38.46	9.82	13.55
	Location - 2	76.14	34.37	9.82	13.55
	Location - 3	82.51	41.50	13.39	17.5
	Location - 4	64.29	29.70	7.14	13.65

Note : SO₂ : BDL (Below Detectable Limit) : 4 µg/m³
NO₂ : BDL (Below Detectable Limit) : 10 µg/m³

EC Compliance – KIOM - MIOM

ANNEXURE-24: B-AMBIENT AIR QUALITY REPORT FOR THE PERIOD, APRIL 2022 TO SEPTEMBER 2022 FOR MIOM, SAIL

**ANNEXURE 25- NOISE MONITORING THROUGH NABL LABORATORY
REGISTERED WITH JSPCB FOR THE PERIOD, APRIL 2022 TO
SEPTEMBER 2022 FOR KIOM-MIOM, SAIL**



CIN: U74999JH2018PTC011125

ENVIRONMENTAL LABORATORIES &

PLOT NO-30, MANSAROVAR ENCLAVE, TUPUDANA
HATIA, RANCHI-834003 (JHARKHAND)
Email: info@elespl.co.in; eles.ranchi@gmail.com
Website : www.elespl.co.in
GST NO:- 20AAECE9713D124 Q : 0651-2290103, 9931289451

ENGINEERING SERVICES PVT. LTD.

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 CERTIFIED
NABL Accredited & JSPCB Certified Lab. for
Environmental Pollution Monitoring & Analysis



TEST REPORT

Test Report No. : ELES/RNC/2022/1223	Report Release Date : 16.06.2022
Application No. : 13350162	Application Date : 31.05.2022

CUSTOMER DETAILS		SAMPLE DETAILS	
Customer Name	: Kiriburu- Meghahatuburu Iron Ore Mines	Sampling Date	: 06.06.2022 to 07.06.2022
Address	: Kiriburu- Meghahatuburu Iron Ore Mines Dist- West Singhbhum	Sampling Received Date	: 08.06.2022
		Type of Sample	: Ambient Noise
		Sampling procedure	: ELES/DOC/SMPL/03
		Sample Drawn By	: ELES Pvt. Ltd.
Plant Status	: Operational	Period of Analysis	: 08.06.2022 to 16.06.2022

METEOROLOGICAL INFORMATION			
1	Average Temperature (°C) : 36	2	Barometric Pressure (mmHg) : 749
3	Relative Humidity (%) : 62	4	Weather Condition : Clear

Location	Unit	Test Protocol	Result			Regulatory Limit
Near R & D Centre	dB(A)	IS 9989:1981, RA 2001	L _{Max}	L _{Min}	L _{eq}	75 dB(A) Day Time & 70 dB(A) Night Time
Sample ID: ELES/RNC/PCB/AN/4778			62.7	40.2	58	
Crusher Plant	dB(A)	IS 9989:1981, RA 2001	L _{Max}	L _{Min}	L _{eq}	
Sample ID: ELES/RNC/PCB/AN/4779			68.4	47	63	
Mining Field	dB(A)	IS 9989:1981, RA 2001	L _{Max}	L _{Min}	L _{eq}	
Sample ID: ELES/RNC/PCB/AN/4780			69.9	48.5	64	

Sandip Bera
Authorized Signatory
SANDIP BERA
SENIOR MANAGER
ELES PVT. LTD.

****End of Report****

Dr. Deependra Kumar Sinha
Authorized Signatory
Dr. Deependra Kumar Sinha
Ph. D. Environmental Engg.
ELES Pvt. Ltd. Technical Manager

Page 1 of 1

The Document stated as Test Report, is issued by the Laboratory under General Terms and Conditions, only on Company letter head in pre-approved format. The results shown in the Test Report refer or relates only to the job/analysis done by the Laboratory only. The information stated on the Test Report reflects the findings done by the Laboratory at the time of involvement only and within the limits of client's instructions. The Laboratory is responsible for all the information or data provided on the report, except the information which is provided by the client. The Report cannot be reproduced except in full and any part of the report is not taken out of context, without prior written approval of the Laboratory. The Report in full or in part shall not be published, advertise, used for any legal actions unless prior permission has been secured from the Management of the Laboratory. Attention is drawn to the limitation of liability, compensation and jurisdiction issues. Any unauthorized alteration & falsification of the content or appearance of the Test Report is unlawful and offenders may be prosecuted to the fullest extent of the law. All the samples are retained for 30days from the Date of release/issue of the Test Report. The samples from Regulatory bodies are to be retained as specified. Any type of Observations or Complaints regarding the Reports shall be done within 15days from the Date of Test Report released/issued. After the time period stated before, no complaints will be accepted. The entire Time schedule mentioned in Test Report is in 24hours format. Abbreviation used: N/A (Not Applicable); BDL (Below Detection Limit); LDL (Lower Detection Limit).

"Save Environment, Save Future"

**ANNEXURE-25: A- NOISE MONITORING THROUGH NABL LABORATORY REGISTERED WITH JSPCB FOR THE
PERIOD, APRIL 2022 TO SEPTEMBER 2022 FOR KIOM, SAIL**



JHARKHAND STATE POLLUTION CONTROL BOARD
REGIONAL OFFICE-CUM-LABORATORY, MB/15, NEW HOUSING COLONY
ADITYAPUR, JAMSHEDPUR.


Lab. Ref. No. - 43/2022

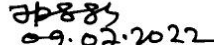
NOISE LEVEL

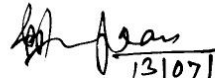
The Ambient Noise Level report at various location inside the premises of
M/s Meghahataburu Iron Ore Mines, Meghahataburu, Dist. -- West Singhbhum, taken on
21.06.2022 from 12.30 pm to 01.40 pm

Sl. No.	Location	Status of operation of plant	Prescribed limit in day time	Noise level dB(A)
1.	Near Guest House	Operation	75 dB (A)	54.3
2.	Near Dumper Shop	-do-	75 dB (A)	72.8
3	Near Mines Time Office	-do-	75 dB (A)	70.5

Remarks :- The value of Noise level at all the point were observed within the limit prescribed.


09.07.2022
ASO
Jamshedpur.


09.07.2022
Regional Officer
Jamshedpur.


13/07/2022
Board Analyst



INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

ISO 9001:2015 (QMS), ISO 45001:2018 (OHSAS); JSPCB Accreditation

A-13, Saket Vihar, Harmu Housing Colony, Near Sohrai Bhawan, Ranchi, Jharkhand – 834002.

Email ID – iem2012@rediffmail.com, Mob. No. – 8407804253.

Format No. IEM-EEL-F-051

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution			Sub-Group: Ambient Noise Levels (Excluding Vibration)		
Report Issue Date: 14-10-2022				Test Report No.: RN-220926001N1		
Sample ID: 221010-AP-0012				Sample Description: Ambient Noise / DG Noise		
Challan No./P.O. No.: 14361131				Challan No./ P.No. Date: 26-09-2022		
Issued to: Kiriburu - Meghahatuburu Iron Ore Mines District - West Singhbhum						
Type of Industry: Iron Ore Mine				Customer Representative: R P Selvam		
Sample Drawn by: IEM Team				Sampling Date: 08-10-2022 to 09-10-2022		
Protocol: CPCB Guideline & IS Method 9989:1981						
Sampling Location: Near DG (Plant)				Co-Ordinates: 22°06'14.05"N 85°16'07.07"E		
Field Meteorological Information		A. Tem. (°C): 29	R.H. (%): 72	W.C.: Partly Cloudy		W.D.: NNW to SSE
Sample Receiving date: 10-10-2022		Testing Started: 10-10-2022		Testing Ended: 13-10-2022		

----Test Result----

Sl. No	Parameter	Method	Unit	Acoustic encloses open (at 0.5 m)	Acoustic enclosure Close (at 0.5 m)	Insertion Loss**
1.	Equivalent Sound Level (Leq)	ISO 8528-10:1998	dB(A)	101.2	73.5	26.5

-----End of Reports-----

** The acoustic enclosure minimum Insertion loss should be 25 dB(A).

Note: -

1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
6. Leq : It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per The Environmental (Protection) Rule-1986.
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Pandab Mahto & Team

Checked By
(B. N. Kumar)
(Technical Manager)

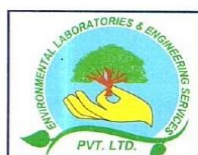
Authorized Signatory
(Dr. S. C. Sanyal)
(Director)

Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.

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ANNEXURE-25: C- NOISE MONITORING THROUGH NABL LABORATORY REGISTERED WITH JSPCB FOR THE PERIOD, APRIL 2022 TO SEPTEMBER 2022 FOR KIOM, SAIL

ANNEXURE 26- TAILING DAM WATER QULITY ASSESSMENT REPORT THROUGH NABL LABORATORY REGISTERED WITH JSPCB FOR THE PERIOD, APRIL 2022 TO SEPTEMBER 2022 FOR KIOM-MIOM, SAIL



CIN: U74999JH2018PTC011125

ENVIRONMENTAL LABORATORIES &

PLOT NO-30, MANSAROVAR ENCLAVE, TUPUDANA
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Website : www.elespl.co.in
GST NO:- 20AAECE9713D1Z4 ☎ : 0651-2290103, 9931289451

ENGINEERING SERVICES PVT. LTD.

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 CERTIFIED
NABL Accredited & JSPCB Certified Lab. for
Environmental Pollution Monitoring & Analysis



TEST REPORT

Test Report No.	: ELES/RNC/2022/1224	Report Release Date	: 16.06.2022
Application No.	: 13350162	Application Date	: 31.05.2022

CUSTOMER DETAILS		SAMPLE DETAILS	
Customer Name	: Kiriburu- Meghahatuburu Iron Ore Mines	Sample Ref. No.	: ELES/RNC/PCB/SW/4781
Address	: Kiriburu- Meghahatuburu Iron Ore Mines Dist- West Singhbhum	Sampling Date	: 06.06.2022
Plant Status	: Operational	Sample Received Date	: 08.06.2022
Period of Analysis	: 08.06.2022 to 16.06.2022	Type of Sample	: Surface Water
		Source of Sample	: Tailing Pond
		Sampling Procedure	: ELES/DOC/SMPL/01
		Sample Collected By	: ELES Pvt.Ltd
		Sample Condition	: Sealed & Preserved

Parameter	Unit	Test Protocol	Result
pH (at 24.7 °C)	-	IS 3025 (Part 11): 1983	6.26
Temperature	°C	IS 3025 (Part 9): 2017	29.2
Chemical Oxygen Demand (COD)	mg/L	IS 3025 (Part-58) : 2006; RA 2017	2.0
Chloride (as Cl)	mg/L	IS 3025 (Part-32) : 1988; RA 2017	4.85
Nitrate (as NO ₃)	mg/L	APHA 23 rd Ed. 2017, 4500 NO ₃ B	BDL (LDL:0.5)
Oil & Grease	mg/L	IS 3025 (Part 39): 2014	BDL (LDL:0.1)
Biochemical Oxygen Demand (BOD) (for 5 days at 20 °C)	mg/L	APHA 23 rd Ed. 2017, 5210 B	BDL (LDL:1.0)
Total Alkalinity	mg/L	IS 3025 (Part-23) :1986; RA 2014	18.1
Total Dissolved Solids (TDS)	mg/L	IS 3025 (Part 16): 1984; RA 2017	58
Total Suspended Solids (TSS)	mg/L	IS 3025 (Part-17): 1984; RA 2017	0.95

Remarks: pH done at Lab; Temperature done at Site.

Sandip Bera
Authorized Signatory
SANDIP BERA
SENIOR MANAGER
ELES PVT. LTD.

****End of Report****

Dr. Deependra Kumar Sinha
Authorized Signatory
Dr. Deependra Kumar Sinha
Ph. D. Environmental Engg.
ELES Pvt. Ltd. Technical Manager

Page 1 of 1

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"Save Environment, Save Future"

**ANNEXURE-26: A- TAILING DAM WATER QULITY ASSESSMENT REPORT THROUGH NABL LABORATORY
REGISTERED WITH JSPCB FOR THE PERIOD, APRIL 2022 TO SEPTEMBER 2022 FOR MIOM, SAIL**



INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

ISO 9001:2015 (QMS), ISO 45001:2018 (OHSAS); JSPCB Accreditation

A-13, Saket Vihar, Harmu Housing Colony, Near Sohrai Bhawan, Ranchi, Jharkhand – 834002.

Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253. Format No.- IEM-EEL-F-052

TEST REPORT

Discipline: Chemical		Group: Water		Sub-Group: Surface Water	
Report Issue Date: 14-10-2022			Test Report No.: RN-220926001SW1		
Sample ID:221010-WA-0001			Sample Description: Surface Water (Dam)		
Challan No./P.O. No.: 14361131			Challan No./ P.No. Date: 26-09-2022		
Issued to: Kiriburu - Meghahatuburu Iron Ore Mines District - West Singhbhum					
Type of Industry: Iron Ore Mine				Customer Representative: R P Selvam	
Sample Drawn by: IEM Team				Sampling Date: 08-10-2022 to 09-10-2022	
Protocol: CPCB Guideline& IS Method 3025 Part-01					
Sampling Location: Ranging Area Dam					
Field Meteorological Information		A. Tem. (°C): 29	R.H. (%): 72	W.C.: Partly Cloudy	W.D.: NNW to SSE
Sample Receiving date: 10-10-2022		Testing Started: 10-10-2022		Testing Ended: 13-10-2022	

---Test Result---

Sl. No.	Tested Parameter	Unit	Method No.	Limit	Results
1.	pH value at 25°C	----	IS 3025 (Part-11)	6.5 - 8.5	7.21
2.	Total Suspended Solid (TSS)	mg/l	IS 3025 (Part-17)	--	318.0
3.	Oil & Grease	mg/l	IS 3025 (Part-39)	--	BDL(MDL-4.0)
4.	Biochemical Oxygen Demand (BOD) [3 Days at 27° c]	mg/l	IS 3025 (Part-44)	3.0	0.9
5.	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part-58)	--	26.0
6.	Total Dissolved Solids (TDS)	mg/l	IS 3025 (Part-16)	--	61.0

---END Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2oC and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule – 1986
Remark	Sample Comply with prescribed specification.

Tested By: Anshu Gupta

Sample Drawn By: Pandab Mahto & Team

Checked By
(B. N. Kumar)
(Technical Manager)

Authorized Signatory
(Dr. S. C. Jain Ranchi)
(Director)

Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.

Page 1 of 1

ANNEXURE-26: B-TAILING DAM WATER QUALITY ASSESSMENT REPORT THROUGH NABL LABORATORY
REGISTERED WITH JSPCB FOR THE PERIOD, APRIL 2022 TO SEPTEMBER 2022 FOR KIOM, SAIL

ANNEXURE 27- COPIES OF THE ADVERTISEMENTS MADE IN THE NEWS PAPERS FOR EC OF KIOM-MIOM, SAIL

THE TELEGRAPH RANCHI
SATURDAY 27 SEPTEMBER 2014

METRO

Power cuts hit studies, business

OUR CORRESPONDENT

Students and traders across Hazratnagar are suffering all the while as rampant power cuts with the demandingly gap widening day by day thanks to the ongoing power-related dispute between the state government and DVC.

Vivekanand Public School will hold its first term exams for Classes I to XII from Saturday while as many as 10 other schools start having their term from September 22. But, even now it is unable to study properly because of unavailability of electricity. The school is forced to live without power for 18-19 hours daily. The situation is worse in rural areas of the district.

"My exams are starting tomorrow (Saturday) and I want to study. But, how can I study under such a situation?" asked Ashu Raga, a sixth grader of Vivekanand Public School. She added that they could not recharge their mobile phones as well.

CM prod for 'new capital'

OUR BUREAU

Chief Minister Hiralal Sen on Friday asked the Greater Ranchi Development Agency (GRDA) to speed up work on a "new capital" and an educational hub—the two projects that have been locked in a long dispute for years.

Charging a meeting at Project Building, Hiralal directed the GRDA to speed up work on the "new capital" and an educational hub—the two projects that have been locked in a long dispute for years.

Also, he reviewed the progress of Greater Ranchi to come up in HSE area on the outskirts of Ranchi.

Development Commissioner R.S. Poddar, principal secretary (planning and development) D.K. Tiwari, principal secretary (housing) Gopal Singh, chief minister's principal secretary S.K. Sarthpy and secretary (urban development) Ajay Kumar Singh attended the meeting.

"Greater Ranchi has been hanging in the balance since 2003. Land parcels have been a major hurdle. Today, the chief minister directed GRDA to speed up the acquisition, constructive fast and pay compensation under provision of the new land acquisition act," said a senior official.

For the Knowledge City, the government has identified around 400 acres spread over four villages — Baria, Lohra, Chaurahata and Baria.

The Khamti district administration is intent to have obtained around 100 acres in Baria and Lohra villages so far, but protests delayed the acquisition process in the other two villages.

The chief minister expressed his dissatisfaction over the hasty decision to acquire the land in Baria and Lohra villages.

He said, "The chief minister expressed his dissatisfaction over the hasty decision to acquire the land in Baria and Lohra villages."

TENDER

IndianOil

NOTICE INVITING TENDERS

For the following work:

1. LRP/GRDA/MP/422014-11
2. LRP/GRDA/MP/422014-11

IndianOil

NOTICE INVITING TENDERS

For the following work:

1. LRP/GRDA/MP/422014-11
2. LRP/GRDA/MP/422014-11

Muslim yoga teacher claims threat to life

Daily wages hangs self, trade unions express concern

Bermud villagers protest over arrest of residents for murder

40 engineering teams to brainstorm at BIT Sindi next hackathon

Indranil Mania appointed new VC of BIT Mesra

Power cuts hit studies, business

CM prod for 'new capital'

IndianOil

NOTICE INVITING TENDERS

For the following work:

1. LRP/GRDA/MP/422014-11
2. LRP/GRDA/MP/422014-11

ANNEXURE-27: A-COPY OF THE ADVERTISEMENTS MADE IN THE ENGLISH NEWS PAPERS FOR EC ON 27/09/2014 FOR KIOM-MIOM, SAIL

ANNEXURE-27: C-COPY OF THE ADVERTISEMENTS MADE IN THE ENGLISH NEWS PAPER ON 04/08/2020 FOR EC AMENDMENT FOR KIOM-MIOM, SAIL

दैनिक जागरण अमरा, 27 सितंबर 2014

NTPC-SAIL POWER COMPANY (PVT.) LIMITED
(A JOINT VENTURE OF NTPC & SAIL)

NOTICE INVITING TENDER (NIT)

For the following work:

1. LRP/GRDA/MP/422014-11
2. LRP/GRDA/MP/422014-11

केंद्रीय विद्युत अनुसंधान संस्थान
(भारत सरकार की संपत्ति, विद्युत विभाग)

पद को लिए विज्ञापन

जयपुर अकादमिक परिषद, रांची
(JAYPUR ACADEMIC COUNCIL, RANCHI)

सचिव अकादमिक परिषद रांची के लिए

सिटी 04.08.2020

शहर में अपनी जमीन पर बने कार्यालय : रघुवर

बिजली के स्विच बोर्ड में आग लगने से अफरा-तफरी, बिल्डिंग छोड़ भागे लोग

कमलाकर केनकाकर पर कर से चक्कर चूक को मीठ

वाटिका खोल सिटी की बाउंड्रीवॉल गिरी, कैप्टन में घुसा कोचड पानी

हज्जल चौथे दिन जारी 1500 गाड़ियां नई नहीं

ANNEXURE-27: B-COPY OF THE ADVERTISEMENTS MADE IN THE HINDI NEWS PAPERS FOR EC ON 27/09/2014 FOR KIOM-MIOM, SAIL

ANNEXURE-27: D-COPY OF THE ADVERTISEMENTS MADE IN THE HINDI NEWS PAPER ON 04/08/2020 FOR EC AMENDMENT FOR KIOM-MIOM, SAIL