

MGM/CO/2022-23/05- 220

Date: 18<sup>th</sup> May, 2022

To

The Member Secretary  
State Pollution Control board  
Paribesh Bhawan,  
A/118, Nilakantha Nagar, Unit-VIII,  
Bhubaneswar-751 012  
Odisha

**Sub: Submission of point wise Compliance of the conditions laid down in the granted Consent order of our Patabeda Iron Mines over 14.00 Ha. of area in Sundargarh district of Odisha.**

**Ref.: Consent Order No.2143 Dated: 19<sup>th</sup> March, 2021**

Sir,

With Reference to the subject cited above we are submitting herewith the point wise compliance of the granted Consent to Operate of our Patabeda Iron Mines over 14.00 Ha. of area in Sundargarh district of Odisha.

This is for your kind information.

Thanking you

Yours faithfully

**For, M/s. M G Mohanty**

  
**R.L. Mohanty**  
**Managing Partner**

**Copy to:**

1. *The Regional Officer, At- Near Panposh Hockey Chowk, Panposh, Po- Panposh, Rourkela – 769 004, Dist – Sundargarh*



**CONSENT FOR DISCHARGE OF SEWAGE AND TRADE EFFLUENT UNDER SECTION 25/26 OF WATER (PCP) ACT, 1974 AND FOR EXISTING/NEW OPERATION OF THE PLANT UNDER SECTION 21 OF AIR (PREVENTION & CONTROL OF POLLUTION) ACT, 1981.**

**REFERENCE: NO. 4511/IND-1-CON-5428 DATED 19.03.2021 FOR PATABEDA IRON MINES OVER 14 HA. IN PATABEDA VILLAGE OF SUNDERGARH DISTRICT ODISHA.**

**CONSENT ORDER NO.: 2143**

**D. GENERAL CONDITIONS FOR ALL UNITS:**

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| 1. | The consent is given by the Board in consideration of the particulars given in the application. Any change or alteration or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations deemed fit for the purpose of the Acts. | Mine is operating as per the application and CTO approved facilities.                                               |
| 2  | The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material/and products/manufacturing process or quantity/quality of the effluent rate of emission/air pollution control equipment/system etc.                                                                                                                                                                                                                      | Application will be made if any changes to be proposed in respect of quantity of raw material/product/ process etc. |
| 3  | The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the prior written permission of the Board.                                                                                                                                                                                                                                                                                                                                    | No changes will be done without prior permission of the Board.                                                      |
| 4  | The applicant shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provision of the Law/Act.                                                                                                                     | Accepted.                                                                                                           |
| 5  | The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.                                                                                                                                                                                                                                                                                                                                                                                           | Agreed.                                                                                                             |
| 6  | The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.                                                                                                                                                                                                                                            | Noted.                                                                                                              |
| 7  | This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.                                                                                                                                                                                                                                                                                                                                                                | Noted.                                                                                                              |
| 8  | The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.                                                                                                                                                                                                                                                                                                                                                                                  | The consent order is being displayed in front of mine entrance.<br>Photograph Enclosed as Annexure-A                |

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| 9  | An inspection book shall be opened and made available to Board's Officers during the visit to the factory.                                                                                                                                                                                                                                                  | A book is being maintained and is showing to the board officers as and when there is a visit.<br>Photocopy of the register is enclosed as Annexure-B               |
| 10 | The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system/air pollution control system/stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water/Air.                    | Adhere to                                                                                                                                                          |
| 11 | Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been tapped by the consumer for utilization for any purposes whatsoever. | Water flow meter has been installed at the incoming of the main water line.<br>Annexure-C                                                                          |
| 12 | Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below.<br>a) Industrial cooling, spraying in mine pits or boiler feed,<br>b) Domestic purpose<br>c) Process                                                                                                                            | Separate flow meters have been installed for monitoring of water consumption at all different user points.<br>Photograph of flow meter enclosed as Annexure-C      |
| 13 | The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.                                                                 | No water from the mine premises discharged to natural drainage.                                                                                                    |
| 14 | Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.                                                                                                                                                                                | Required check dams and drains are constructed that storm water will not mix with effluent.<br>Photograph of garland drain and check dam is enclosed as Annexure-D |
| 15 | The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.                                                      | Required garland drains are being constructed.                                                                                                                     |
| 16 | The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.                                                                                                                     | The lease premise is duly maintained.                                                                                                                              |
| 17 | Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.                                                                    | Noted.                                                                                                                                                             |

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| 18 | The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.                                                                                                                                              | Waste water is being settled inside the lease premises and no water being discharged from the mine. |
| 19 | The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at the time.                                                                                                                                                                                                                                        | No discharge from the lease area.                                                                   |
| 20 | If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.                                                                                                                                                     | If required will be followed.                                                                       |
| 21 | The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.                                                                                                                                                                                                                                                       | Is being done.                                                                                      |
| 22 | The effluent treatment units and disposal measures shall become operative at the time of commencement of production.                                                                                                                                                                                                                                                                   | Is being monitored regularly.                                                                       |
| 23 | The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein. | Not applicable for the mining project.                                                              |
| 24 | The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples/stack monitoring /inspection.                                                                                                                                                                                                                                   | Not applicable for the mining project.                                                              |
| 25 | The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the airpollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.                                                  | Necessary permission will be obtained from Board if any changes required.                           |
| 26 | No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.                                                                                                                                                                                                                              | Necessary permission will be obtained from Board if any changes required.                           |
| 27 | The liquid effluent arising out of the operation of the air control equipment shall be treated in the manner to meet the prescribed standards by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).                                                                                                                    | Is being followed.                                                                                  |
| 28 | The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.                                                                                                                                                                                                                                                                        | Is being followed.                                                                                  |
| 29 | There shall not be any fugitive or episodic discharge from the premises.                                                                                                                                                                                                                                                                                                               | Presently no fugitive/episodic discharge from the lease area.                                       |
| 30 | In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such                                                                                                                                                               | Will be carried our as and when required.                                                           |

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|    | accidental discharge/emission shall be brought to the notice of the Board within 24 hours of occurrence.                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                              |
| 31 | The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stack/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all time.                                                                                                                                                                    | Housekeeping personal are looking after the cleanliness of the whole lease premises. Photograph of lease area showing housekeeping is enclosed as Annexure-E |
| 32 | Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and/or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax/speed post within 24 hours of its occurrence.                                                                                                                                      | Will be followed as and when observed.                                                                                                                       |
| 33 | The industry has to ensure that minimum three varieties indigenous species of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.                                                                                                                                                | Plantation is being carried out inside and outside the lease premises.                                                                                       |
| 34 | The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as not to cause fugitive emission, dust problems through leaching etc. or any kind.                                                                                                                 | Is being carried out.                                                                                                                                        |
| 35 | All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by:<br>i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.<br>ii) Controlled incineration, wherever possible in case of combustible organic material.<br>iii) Composting, in case of bio-degradable material. | Is being followed.                                                                                                                                           |
| 36 | Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.                                                                                              | Is being followed.                                                                                                                                           |
| 37 | If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above required variation (including the change or any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and                                                                                                                                | Will be followed.                                                                                                                                            |

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|    | thereupon the applicant shall be bound to comply with the conditions so varied.                                                                                                                                                                                                                                                                                                  |                                                                                                       |
| 38 | The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the conditions or renewal of this consent after the expiry period of this consent.                                                                                                                                                                                                 | Noted.                                                                                                |
| 39 | The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.                                                                                                                                                                                                                              | Noted & Accepted.                                                                                     |
| 40 | Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.                     | All instruction as and when put by the Board as per the Water Act 1974, will be observed/carried out. |
| 41 | The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.                                                                                                                                                | Noted                                                                                                 |
| 42 | In case the consent fee is revised upward or the fees paid to be inadequate for any reason during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the adequate amount within the period stipulated by the Board the consent order will be revoked without prior notice. | We will comply the CSR conditions as CREP guideline in a time bound manner.                           |
| 43 | The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify stipulate additional conditions as deemed appropriate.                                                                                                                                                   | Is being complied with.                                                                               |

**GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs. 50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A)**

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                |
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| 1  | The applicant shall analyze the effluent/emissions and Ambient Air Quality every month through approved laboratory for the parameters indicated in TABLE - B & C as mentioned in this order and shall furnish the report thereof to be Board by the 10 <sup>th</sup> of succeeding month.                                                                                                                                                                                                                                        | Monitoring of ambient air, water are being carried-out on monthly basis. Enclosed as Annexure-F                                                                                |
| 2  | The applicant shall provide and maintain at his own cost three ambient air quality monitoring stations for monitoring Suspended Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen, Hydro-Carbon, Carbon-Monoxide and monitor the same once in day/week/fortnight/month. The data collected shall be maintained in a register and a monthly extract be furnished to the Board.                                                                                                                                              | Third party monitoring is being carried out the monitoring results are enclosed as Annexure-F                                                                                  |
| 3  | The applicant shall provide and maintain at his own cost a meteorological station to collect the data on wind velocity, direction, temperature, humidity, rainfall etc. and the daily reading shall be recorded and the extract sent to the Board once in a month.                                                                                                                                                                                                                                                               | The meteorological data of Government source is being used as and when required.                                                                                               |
| 4  | The applicant shall forward the following information to Member Secretary, State Pollution Control Board, Odisha, Bhubaneswar regularly.<br>a) Report of analysis of stack monitoring ambient air quality meteorological data as required every month.<br>b) Progress on planting of trees quarterly.                                                                                                                                                                                                                            | Monitoring report in respect of air quality to the SPCB is being submitted half yearly on regular basis. The plantation work carried out in the area is also intimated.        |
| 5  | The applicant shall install mechanical composite sampling equipment and continuous flow measuring/recording devices on the effluent drains of trade as well as domestic effluent. A record of daily discharge shall be maintained.                                                                                                                                                                                                                                                                                               | No effluent generated from the lease area.                                                                                                                                     |
| 6  | The following information shall be forwarded to the Member Secretary on or before 10 <sup>th</sup> of every month.<br>a) Performance/progress of the treatment plant.<br>b) Monthly statement of daily discharge of domestic and/or trade effluent                                                                                                                                                                                                                                                                               | Treatment plant for the work shop already installed as well as STP for domestic discharge. The domestic discharge is minimal. Photograph of ETP and STP enclosed as Annexure-G |
| 7. | Non-compliance with effluent limitations<br>a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of each notification.<br>i) Causes of non-compliance.<br>ii) A description of the non-compliance discharge including its impact on the receiving waters. | As such very minimum quality of effluent generated from workshop. No effluent discharge outside the lease area.                                                                |

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|     | <p>iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.</p> <p>iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and</p> <p>v) Steps to be taken by the applicant too prevent the condition of non-compliance.</p>                                                                                                                                                                                                                                                |                                                                                      |
|     | <p>b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.</p> <p>c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.</p> | Accepted                                                                             |
| 8.  | The applicant shall at his own cost get the effluent samples collected both before and after treatment and get them analysed at an approval laboratory every month for the parameters indicated in Part-D and shall submit in duplicate the report thereof to the Board.                                                                                                                                                                                                                                                                                                                                         | Effluent water generated from workshop is being analysed. Annexure-G                 |
| 9.  | The addition of various treatment chemicals should be done only with mechanical dosers and proper equipment for regulation of correct dosages determined daily and for proper uniform feeding. Crude practices such as dumping of chemicals in drains or sumps or trickling of adds or alkalies arbitrarily and utilizing poles for stirring etc. should not be resorted to.                                                                                                                                                                                                                                     | Is being followed.                                                                   |
| 10. | <p>In the disposal of treated effluent on land for irrigation the industry shall keep in view of the need for</p> <p>Rotation of crops</p> <p>Change of point of application of effluent on land</p> <p>A portion of land kept fallow</p>                                                                                                                                                                                                                                                                                                                                                                        | In no case effluent from workshop discharge to outside lease.                        |
| 11. | The adoption of these would avoid soil becoming sick or slate, the industry may ensure this in consultation with the Agriculture Department.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Not applicable for this lease area.                                                  |
| 12. | It is the sole responsibility of the industry to ensure that there are no complaints at any time from the locals in the surrounding areas as a result of discharge of sewage of trade effluent if any.                                                                                                                                                                                                                                                                                                                                                                                                           | Noted and there will be no complain from the local villages or inhabitants.          |
| 13  | Proper housekeeping shall be maintained by a dedicated team.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Is being followed. Photograph enclosed as Annexure-E                                 |
| 14  | The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these                                                                                                                                                                                                                            | Environment cell is being created and the names have been communicated to the Board. |

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|  | persons with their contact telephone numbers shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team shall be intimated to the Board immediately. |  |
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#### E. SPECIAL CONDITIONS:

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| 1. | This consent order is subject to compliance of orders of the Hon'ble Supreme Court of India in the matter of W.P. (Civil) 114/2014.                                                                                                                                                                                                                                                                              | Noted.                                                                                                                                                                                                                                                                    |
| 2. | This consent order is subject to permission from MoEF& CC, Govt. of India and Steel and Mines Department, Govt. of Odisha for continuing of mining operation.                                                                                                                                                                                                                                                    | Mining operation is being carried with proper lease document and Environmental Clearance, Approval of mining Plan.<br>Copy of lease deed Enclosed as Annexure-H, Review of Mining Plan Approval from IBM, as Annexure-I and Environmental Clearance as Annexure-J         |
| 3. | Mining operation is subject to availability of all other statutory clearances.                                                                                                                                                                                                                                                                                                                                   | The mining operation is being continuing with due lease deed, Approved mining plan, Environmental Clearance and Forest Clearance. The copy of statutory clearance enclosed as Annexure -H, I, J and K respectively.                                                       |
| 4. | Drills shall either be operated with dust extractors or equipped with water injection system to minimize dust generation in the work environment.                                                                                                                                                                                                                                                                | The drill is being operated with water injection system to minimize dust generation in the work environment. The photograph of drilling operation with water injection system is enclosed as Annexure-L.                                                                  |
| 5. | Controlled blasting shall be practiced to minimize generation of dust and fly rocks.                                                                                                                                                                                                                                                                                                                             | Controlled blasting practice being followed in the lease area for mining operation.                                                                                                                                                                                       |
| 6. | Regular water sprinkling shall be carried out in critical areas prone to air pollution such as around crushing and screening plant. Water sprinkling shall also be carried out on haul roads at frequent interval so that it should always remain in wet condition. Haulage roads shall be devoid of ruts and potholes and shall be maintained properly to avoid generation of dust during movement of vehicles. | Regular water sprinkling is being carried out in the lease area. The haul road area being sprinkled in regular interval and sprinklers are installed in the approach roads.<br>The photograph of fixed sprinklers and sprinkling on haul roads are enclosed as Annexure-M |

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| 7.  | Mechanized wheel washing facility for the ore transport vehicles shall be provided at the exit point of the mine. The wheel washing facility shall be integrated with complete recirculation system.                                                                                                                                                                       | Wheel washing facility has been installed at the exit point of the mines.                                                                                                                                              |
| 8.  | Dust suppression measures (preferably dry fog system) shall be provided at all appropriate places of mineral handling plants (crusher & screening plant). Loading and unloading areas including all the transfer points shall also have efficient dust suppression arrangements (dry fog system). These shall be properly maintained and operated.                         | Dust Suppression System is being installed in the screening unit. Photograph of the DSS is enclosed as <b>Annexure- N</b>                                                                                              |
| 9.  | The vehicles carrying ore for transportation from the mine shall be covered with tarpaulin (both bottom & top).                                                                                                                                                                                                                                                            | The vehicles carrying ore for transportation from the mine being covered with tarpaulin (both bottom & top). Photograph Enclosed as <b>Annexure-O</b>                                                                  |
| 10. | Regular water sprinkling on mineral transportation roads passing through the habitation area as well as other strategic point on the National Highway shall be done jointly by the mining lessees in consultation with the Regional Officer.                                                                                                                               | Dedicated water tanker is being used on the mineral transportation road in the nearby villages.                                                                                                                        |
| 11. | Four Ambient Air Quality Monitoring Stations shall be established in core zone and buffer zone for monitoring of ambient air quality and location of the stations shall be decided in consultation with the Regional Officer, State Pollution Control Board based on the metrological data, topographical features and environmentally and ecologically sensitive targets. | Four Ambient Air Monitoring station is being monitored by 3 <sup>rd</sup> party in the core & buffer zone on monthly basis. The data enclosed as <b>Annexure-F</b>                                                     |
| 12. | Fugitive Dust Emission Monitoring shall be carried out at the places as stated in Part-B of this order. The monitoring of ambient air quality and fugitive dust shall be carried out twice in a week (24 hourly) at a particular site and the consolidated data shall be submitted to the State Pollution Control Board, once in a year.                                   | Fugitive Emission monitoring is also being carried out in regular interval. Monitoring result enclosed in <b>Annexure-F</b>                                                                                            |
| 13. | The top soil generated shall be stored at earmarked site (s) only and stabilized with plantation or shall be used for land reclamation and plantation.                                                                                                                                                                                                                     | There is no top soil .                                                                                                                                                                                                 |
| 14. | The overburden generated during the course of mining shall be stacked at earmarked dump site (s) and stabilized with plantation or used for reclamation of excavated land followed by plantation.                                                                                                                                                                          | The over burden generated is being stacked separately in the lease area and will be stabilized and will be utilized for reclamation and plantation purpose. Photograph of dump site is enclosed as <b>Annexure-P</b> . |
| 15. | The project proponent shall ensure that no natural watercourse and/or water resources are obstructed due to any mining operations. In case of diversion of natural watercourse, this shall be done with prior permission of the competent authority.                                                                                                                       | No water course is being diverted or disturbed due to mining operation in the lease area.                                                                                                                              |
| 16. | Check dams and check weirs shall be constructed at appropriate places of the mine lease area to prevent                                                                                                                                                                                                                                                                    | Check dam and garland drains are being constructed                                                                                                                                                                     |

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|     | direct flow of runoff to nearby water bodies. The surface runoff water from the existing runoff management system shall meet the prescribed standards as stated in Part-A of the consent order.                                                                                                                                                                                 | in the lease area to prevent direct flow of runoff to nearby water bodies. The surface runoff is being meeting the standard prescribed in Part-A.                                                                                                     |
| 17. | Retention wall shall be constructed at the toe of topsoil dump and OB dump. Garland drain shall be constructed around topsoil dumps, over burden dumps and mineral stack yards terminating at settling pit to prevent direct disposal of runoff to nearby water bodies.                                                                                                         | There is no top soil dump in the area. Garland drain shall be constructed around over burden dumps and mineral stack yards terminating at settling pit to prevent direct disposal of runoff to nearby water bodies. Photograph Enclosed as Annexure-D |
| 18. | Garland drain and sedimentation pit shall be de-silted after monsoon or as and when required. The runoff discharge quality from runoff management system shall meet the prescribed standards as stated in Part A of the consent order.                                                                                                                                          | Garland drain and sedimentation pit is being de-silted before & after monsoon or as and when required. The runoff discharge quality from runoff management system is meeting the prescribed standards as stated in Part A of the consent order.       |
| 19. | Domestic effluents shall be treated in a Sewage Treatment Plant (STP) and or shall be discharged to soak pit via septic tank constructed as BIS specification. The treated waste water quality of STP shall remain within the following standards and shall be used for plantation.<br>pH - 6.5 – 9.0<br>TSS - <100 mg/l<br>BOD - 30 mg/l<br>Fecal Coliform - <1000 MPN/100 ml. | Domestic effluents is being treated in a Sewage Treatment Plant (STP) and discharged to soak pit via septic tank constructed as BIS specification.                                                                                                    |
| 20. | ETP shall be provided for workshop and waste water generated during mining operation, if any. The quality of the treated waste water shall confirm to the prescribed standard as stated in Part-A of the consent order.                                                                                                                                                         | ETP has been provided for workshop Annexure- G. The treated water meeting the specification given in Part-A.                                                                                                                                          |
| 21. | Regular monitoring of water quality of upstream and downstream of surface water bodies existed if any within 5 km. shall be carried out once in every month and record shall be maintained and submitted to the State Pollution Control Board once in every year. Monitoring shall be carried out through MoEF&CC accredited laboratory.                                        | The nala water in the upstream and downstream is being monitored on monthly basis and monitoring result is appended in Annexure-F                                                                                                                     |
| 22. | Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells. The monitoring should be done four times a year in pre-monsoon (April/May), monsoon (August), post-monsoon (November) and winter (January) seasons. Consolidated data thus collected should be submitted to the Board annually.                         | Ground water quality and ground water level is being monitored on quarterly basis. The monitoring results are appended in Annexure-F and Q respectively.                                                                                              |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 23. | The mine shall take necessary action for compliance with the air and water quality standards as stipulated in Part-A and Part-B of this order.                                                                                                                                                                                                                                                                                | The project authority is taking necessary action that the water quality to meet the stipulated standard given in Part-A and Part-B.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 24. | Adequate measures shall be taken for control of noise levels below the following limits.<br><br>(6.00 AM – 9.00 PM) – Leq. 75 dB(A)<br>(9.00 PM – 6.00 AM) – Leq. 70 dB(A)                                                                                                                                                                                                                                                    | Adequate measures like controlled blasting practice and regular maintenance of transport vehicles is being taken to minimize noise level in the lease area.                                                                                                                                                                                                                                                                                                                                                                                           |
| 25. | Ambient air quality monitoring data, noise monitoring data and water/waste water quality monitoring data shall be electronically displayed at the entry point of the mine or at suitable location of the mine.                                                                                                                                                                                                                | Ambient Air Quality, Noise, Water and waste water quality monitoring data is being electronically displayed in the display board at the entry point of the lease area.- Annexure-A                                                                                                                                                                                                                                                                                                                                                                    |
| 26. | Plantation of trees shall be undertaken in the colony/township, over top soil dumps, OB dumps, along the side of haul road and in other areas of the mines not being utilized for mining activities. The mine shall take up avenue plantation and plantation in nearby village areas in consultation with DFO/Horticulture Department. The plantation details shall be submitted to the Board before end of April every year. | Plantation of plant saplings has been undertaken in the colony, OB dumps, along the side of haul road and in other areas of the mines not being utilized for mining activities. The mine also taken up avenue plantation and plantation in nearby village areas in consultation with local authorities. The plantation details shall be submitted to the Board before end of April every year.<br>Photograph of plantation in the colony area, dump area, haul road site, Avenue plantation and nearby village area plantation enclosed as Annexure-R |
| 27. | A copy of the annual return (annual return submitted to IBM, Govt. of India/Directorate of Mines, Govt. of Odisha) shall be submitted to this Board every year.                                                                                                                                                                                                                                                               | Copy of Annual return submitted to IBM for 2020-21 is enclosed as Annexure-S                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 28. | The environmental statement report for the financial year ending 31 <sup>st</sup> March shall be submitted to the Board in Form-V on or before 30 <sup>th</sup> September every year.                                                                                                                                                                                                                                         | Environmental statement report for the financial year 2020-21 submitted to board before 30 <sup>th</sup> September 2021. Copy of the submission letter is enclosed as Annexure-: T.                                                                                                                                                                                                                                                                                                                                                                   |

1. Annexure-A: Photograph of display board
2. Annexure-B: Photograph showing Visitor entry register
3. Annexure-C: Photograph showing digital water flow meter
4. Annexure-D: Photograph showing Check Dams
5. Annexure-E: Photograph showing cleanness of the mine
6. Annexure-F: Environmental Monitoring data for the period October 2021 to March 2022
7. Annexure-G: Photograph showing of STP/ETP
8. Annexure-H: Lease Deed
9. Annexure-I: Copy of Review of mining scheme approval letter
10. Annexure-J: Copy of Environmental Clearance
11. Annexure-K: Copy of Forest Clearance
12. Annexure-L: Photograph showing DFS/DSS
13. Annexure-M: Photograph showing Water Sprinkling on haul roads
14. Annexure-N: Photograph showing DFS at crushing unit
15. Annexure-O: Photograph showing Covered vehicle carrying iron ore
16. Annexure-P: Photograph showing Dump Site
17. Annexure-Q: Ground Water Level Data
18. Annexure-R: Photograph showing Plantation site
19. Annexure S: Copy of Annual Return submitted to IBM
20. Annexure-T: Copy of Environmental Statement for the year 2020-21

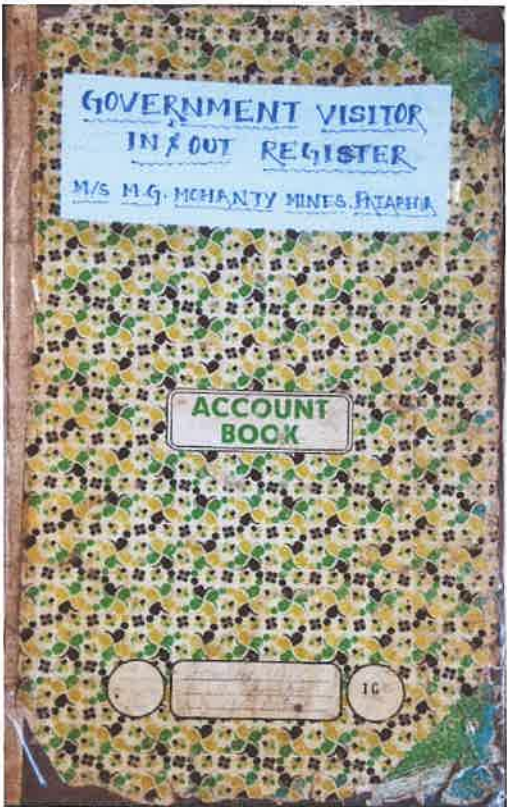
## ANNEXURE-A



**PHOTOGRAPH OF DISPLAY BOARD**

ANNEXURE-B

PHOTOGRAPH OF VISITOR ENTRY REGISTER

The image shows a page from a visitor entry register. It is a ledger-style page with multiple columns and rows. The columns are labeled with various fields, including "Date", "Time", "Name", "Designation", "In/Out", "Remarks", and "Signature". The page contains several handwritten entries in black ink, detailing visitor arrivals and departures. The handwriting is somewhat cursive and difficult to read in some places. The page is slightly aged and shows some wear.

## **ANNEXURE-C**



**PHOTOGRAPH OF DIGITAL FLOWMETER**

## **ANNEXURE-D**



**CHECK DAM**



**GARLAND DRAIN**

## **ANNEXURE-E**



**ENVIRONMENTAL FRIENDLY MINING**

**ANNEXURE-F**

**AIR, WATER, NOISE MONITORING REPORT**



**SUPERINTENDENCE CO. OF INDIA (P) LTD.**

**ENVIRONMENTAL BASELINE DATA GENERATION  
AT**

**M/S – M.G.MOHANTY  
PROJECT: Patabeda Iron & Manganese Mines (14.000 Ha)**

**REPORT  
FOR THE MONTH OF MARCH 2022**

\*\*\*\*\*

**Branch Office :** AT/P.O : NALDA , DIST : KEONJHAR, ODISHA – 758 042  
TEL #: 06767 – 212562, 211456,  
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E-mail: supindnalda@rediffmail.com

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Kolkata – 700 091  
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E-mail: supindkolkata@vsnl.net / supind50yahoo.co.in  
Website: www.superintendence.co

**Regd. Office:** “Everest House”, 7<sup>th</sup> floor, 46C, Chowringhee Road,  
Kolkata – 700 071  
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Fax No : ( 033) 2288- 9015 / 5894  
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Website: www.superintendence.co



# SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

LABORATORY :

PLOT NO. Y-23, BLOCK-EP, SECTOR-V, SALT LAKE CITY, KOLKATA-700 091

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Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ



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TC-8066

## TEST REPORT

| ULR-TC806622000000285F        |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| REPORT NO. : N- 823           | DATE: 18.04.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Ref. no. and Date:            | MGM/CO/2021/217 Dated:12/03/2021                                                                                    |
| Sample receiving date:        | 28.03.2022                                                                                                          |
| Sub:                          | Environmental monitoring                                                                                            |
| Material:                     | Ambient Air                                                                                                         |
| Group:                        | Atmospheric Pollution                                                                                               |

### CHEMICAL TEST RESULT

Date of starting of Test: 29.03.2022

Date of completion of Test: 88.04.2022

| S.N. | Specific Test Performed                      | Test Method Specification against which tests are performed | Permissible limit as per NAAQS-2009         | Test Results            |
|------|----------------------------------------------|-------------------------------------------------------------|---------------------------------------------|-------------------------|
|      |                                              |                                                             |                                             | Mines Quarry 23.03.2022 |
| 1.   | PM 2.5 ( $\mu\text{g}/\text{m}^3$ )          | USEPA CFR-40, PART-50, APPX-L                               | 60 ( $\mu\text{g}/\text{m}^3$ ) (24 Hours)  | 47.36                   |
| 2.   | PM 10 ( $\mu\text{g}/\text{m}^3$ )           | IS: 5182 PART-23 2006 RA-2012                               | 100 ( $\mu\text{g}/\text{m}^3$ ) (24 Hours) | 68.72                   |
| 3.   | NRPM ( $\mu\text{g}/\text{m}^3$ )            | IS: 5182 PART-4 1999 RA-2010                                | -                                           | 70.82                   |
| 4.   | SPM( $\mu\text{g}/\text{m}^3$ )              | IS: 5182 PART-4 1999 RA-2010                                | -                                           | 139.54                  |
| 5.   | SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ ) | IS: 5182 PART-2 2001 RA-2012                                | 80 ( $\mu\text{g}/\text{m}^3$ ) (24 Hours)  | 11.52                   |
| 6.   | NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ ) | IS: 5182 PART-6 2006 RA-2012                                | 80 mg/m <sup>3</sup> (1 Hour)               | 21.12                   |
| 7.   | CO (mg/m <sup>3</sup> )                      | IS:5182 PART-10 1999 RA-2009                                | 4 mg/m <sup>3</sup> (1 Hour)                | 0.83                    |

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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TC-8066

## TEST REPORT

ULR-TC806622000000284F

|                               |                                                                                                                     |                   |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------|
| Report No.: N- 824            |                                                                                                                     | Date - 18.04.2022 |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |                   |
| Work Order No. and Date       | MGM/CO/2021/217 Dated:12/03/2021                                                                                    |                   |
| Date of Sample Received:      | 28.03.2022                                                                                                          |                   |
| Sub:                          | Environment Monitoring                                                                                              |                   |
| Material:                     | Fugitive Dust Emission Monitoring                                                                                   |                   |
| Group:                        | Atmospheric Pollution                                                                                               |                   |

### FUGITIVE DUST EMISSION MONITORING CHEMICAL TEST

Date of starting of test: 04.04.2022

Date of completion of test: 18.04.2022

| Sl. No. | Name of Tests                           | Test Method                    | Permissible Limit as per OPCB | Test Result              |
|---------|-----------------------------------------|--------------------------------|-------------------------------|--------------------------|
|         |                                         |                                |                               | NAME OF STATIONS         |
|         |                                         |                                |                               | FD-1<br>Screening Plant  |
|         |                                         |                                |                               | Sampling Collection Date |
|         |                                         |                                |                               | 23.03.22                 |
| 01      | Particulate Matter (µg/m <sup>3</sup> ) | IS:5182, PART-4, 2006, RA-2012 | 1200 (µg/m <sup>3</sup> )     | 698.64                   |

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



TC-8066

## TEST REPORT

| ULR-TC806622000000270F        |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| REPORT NO. : N- 827           | DATE: 18.04.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Ref. no. and Date:            | MGM/CO/2021/217 Dated:12/03/2021                                                                                    |
| Sample receiving date:        | 28.03.2022                                                                                                          |
| Sub:                          | Environmental monitoring                                                                                            |
| Material:                     | Ambient Noise                                                                                                       |
| Group:                        | Atmospheric Pollution                                                                                               |

## TEST REPORT

| S. N. | Name of tests                    | Reference                       | Permissible limit as per:<br>Ambient Noise Level     |                     | Test Results               |
|-------|----------------------------------|---------------------------------|------------------------------------------------------|---------------------|----------------------------|
| 1.    | Equivalent Sound level dB(A) Leq | SUP/SOP/403<br>3SD &<br>IS:9989 | Standard as per Noise Pollution Regulation Rule-2000 |                     | Mines Quarry<br>23.03.2022 |
|       |                                  |                                 | Category of area Zone                                | Limits in dB(A) Leq | 72.4                       |
|       |                                  |                                 | 1. Industrial                                        | 75                  |                            |
|       |                                  |                                 | 2. Commercial                                        | 65                  |                            |
|       |                                  |                                 | 3. Residential                                       | 55                  |                            |
|       |                                  |                                 | 4. Silent                                            | 50                  |                            |

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta  
(Technical Manager)

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TC-8066

## TEST REPORT

|                               |  |                                                                                                                     |  |                  |
|-------------------------------|--|---------------------------------------------------------------------------------------------------------------------|--|------------------|
| Report No N- 825              |  | ULR-TC806622000000273F                                                                                              |  | Date: 18.04.2022 |
| Name and Address of Customer: |  | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |  |                  |
| Work-order no. and Date:      |  | MGM/CO/2021/217 Dated:12/03/2021                                                                                    |  |                  |
| Sample receiving date:        |  | 28.03.22                                                                                                            |  |                  |
| Sub:                          |  | Water monitoring                                                                                                    |  |                  |
| Material:                     |  | Surface Water                                                                                                       |  |                  |
| Group:                        |  | Water                                                                                                               |  |                  |

### CHEMICAL REPORT

Date of starting of Test 28.03.22

Date of completion of Test: 06.04.2022

| Sl. No. | Specific Test Performed      | Test Method                          | Test Result                          |                                        |
|---------|------------------------------|--------------------------------------|--------------------------------------|----------------------------------------|
|         |                              |                                      | SW1<br>Up-Stream<br>Nalla(Kakarpani) | SW2<br>Down-Stream<br>Nalla(Kakarpani) |
|         |                              |                                      | Date of Collection<br>23.03.22       | Date of collection<br>23.03.22         |
| 1       | pH                           | IS :3025,P-11, R.A 2009              | 6.23 at 27.2°C                       | 6.14 at 27.4 °C                        |
| 2       | Temperature                  | APHA 22 <sup>nd</sup> EDN 2550 B     | 27.2°C                               | 27.4°C                                 |
| 3       | Turbidity(NTU)               | IS 3025 (P-10), RA2006               | 4.5                                  | 3.6                                    |
| 4       | Residual Free Chlorine mg/l  | IS 3025 (P-26), RA2009               | <1.0                                 | <1.0                                   |
| 5       | Alkalinity as CaCo3 mg/l     | IS 3025 (P-23), RA2014               | 32                                   | 24                                     |
| 6       | Chloride as Cl mg/l          | IS 3025 (P-32), RA2009               | 4                                    | 8                                      |
| 7       | Total Hardness as CaCo3 mg/l | IS 3025 (P-21), RA2006               | 36                                   | 32                                     |
| 8       | Calcium as Ca mg/l           | APHA 22 <sup>nd</sup> EDN 3500Ca B   | 9.6                                  | 6.4                                    |
| 9       | Magnesium as Mg mg/l         | APHA 22 <sup>nd</sup> EDN 3500 Mg B  | 2.916                                | 3.888                                  |
| 10      | Sulphate as So4 mg/l         | APHA 22 <sup>nd</sup> EDN 4500 SO4 E | 2                                    | 2                                      |
| 11      | Nitrate as No3 mg/l          | APHA 22 <sup>nd</sup> EDN 4500 NO3 B | 3.0                                  | 3.6                                    |
| 12      | Fluoride as F mg/l           | APHA 22 <sup>nd</sup> EDN 4500 F D   | <0.1                                 | <0.1                                   |
| 13      | Total dissolve Solids mg/l   | IS 3025 (P-16), RA2012               | 39                                   | 34                                     |
| 14      | Total Suspended Solids mg/l  | APHA 22 <sup>nd</sup> EDN 2540 D     | 11                                   | 13                                     |
| 15      | D.O.                         | APHA 22 <sup>nd</sup> EDN 4500 O-C   | 3.8                                  | 3.8                                    |
| 16      | COD                          | APHA 22 <sup>nd</sup> EDN 5220 B     | 5                                    | 8                                      |
| 17      | Oil and Grease mg/l          | IS 3025 (P-39), RA2009               | <0.1                                 | <0.1                                   |

Tested by:

*A. Chatterjee*

A. CHATTERJEE

Authorized Signatory

*P. Dutta*

P. DUTTA  
(Technical Manager)

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# SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

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TC-8066

## TEST REPORT

|                               |                                                                                                                     |                   |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------|
| Report No. N- 825             | ULR-TC806622000000273F                                                                                              | Date: 18.04.2022  |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |                   |
| Work-order no. and Date:      | MGM/CO/2021/217                                                                                                     | Dated: 12/03/2021 |
| Sample receiving date:        | 28.03.22                                                                                                            |                   |
| Sub:                          | Water monitoring                                                                                                    |                   |
| Material:                     | Surface Water                                                                                                       |                   |
| Group:                        | Water                                                                                                               |                   |

Date of starting of Test 28.03.22

Date of completion of Test: 06.04.2022

| Sl. No. | Specific Test Performed     | Test Method                                      | Test Result                          |                                        |
|---------|-----------------------------|--------------------------------------------------|--------------------------------------|----------------------------------------|
|         |                             |                                                  | SW1<br>Up-Stream<br>Nalla(Kakarpani) | SW2<br>Down-Stream<br>Nalla(Kakarpani) |
|         |                             |                                                  | Date of<br>Collection<br>23.03.22    | Date of<br>Collection<br>23.03.22      |
| 18      | Iron as Fe mg/l             | APHA 22 <sup>nd</sup> EDN 3111 B                 | 0.236                                | 0.238                                  |
| 19      | Copper as Cu mg/l           | APHA 22 <sup>nd</sup> EDN 3111 B & C             | <0.04                                | <0.04                                  |
| 20      | Zinc as Zn mg/l             | APHA 22 <sup>nd</sup> EDN 3111 B & C             | <0.01                                | <0.01                                  |
| 21      | Aluminium as Al mg/l        | APHA 22 <sup>nd</sup> EDN 3500 Al-B              | <0.05                                | <0.05                                  |
| 22      | Boron as B mg/l             | APHA 22 <sup>nd</sup> EDN 4500 B-B               | <1.0                                 | <1.0                                   |
| 23      | Manganese as Mn mg/l        | APHA 22 <sup>nd</sup> EDN 3111 B                 | <0.03                                | <0.03                                  |
| 24      | Lead as Pb mg/l             | APHA 22 <sup>nd</sup> EDN 3120 B                 | <0.01                                | <0.01                                  |
| 25      | Cadmium as Cd mg/l          | APHA 22 <sup>nd</sup> EDN 3111 B & C             | <0.01                                | <0.01                                  |
| 26      | Arsenic as As mg/l          | APHA 22 <sup>nd</sup> EDN 3120 B                 | <0.01                                | <0.01                                  |
| 27      | Mercury as Hg mg/l          | IS 3025 (P-48)MURCURY ANALYSER                   | <0.001                               | <0.001                                 |
| 28      | Nickel as Ni mg/l           | APHA 22 <sup>nd</sup> EDN 3111 B & C             | <0.02                                | <0.02                                  |
| 29      | Chromium as Cr +6mg/l       | APHA 22 <sup>nd</sup> EDN 3500 B                 | <0.05                                | <0.05                                  |
| 30      | Phenolic compound mg/l      | APHA 22 <sup>nd</sup> EDN 5530 D                 | <0.001                               | <0.001                                 |
| 31      | Cyanide as CN mg/l          | APHA 22 <sup>nd</sup> EDN 4500 E                 | <0.05                                | <0.05                                  |
| 32      | Sulphide as S mg/l          | APHA 22 <sup>nd</sup> EDN 4500 S <sup>2</sup> -F | N.T                                  | N.T                                    |
| 33      | Free Ammonia as N mg/l      | IS 3025 (P-34)                                   | N.T                                  | N.T                                    |
| 34      | Kjeldahl Nitrogen as N mg/l | IS 3025 (P-34)                                   | 4                                    | 5                                      |
| 35      | Ammonia as N mg/l           | IS 3025 (P-34)                                   | <0.02                                | <0.02                                  |

Tested by:

A. CHATTERJEE

Authorized Signatory

P. DUTTA (Technical Manager)

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# SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

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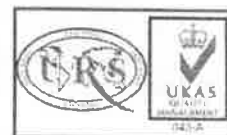
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TC-8066

## TEST REPORT

ULR-TC806622000000293F

|                               |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Report No. N- 826</b>      | <b>Date: 19.04.2022</b>                                                                                             |
| Name and Address of Customer: | M/s. M.G. MOHANTY,<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work-order no. and Date:      | MGM/CO/2021/217 Dated:12/03/2021                                                                                    |
| Sample receiving date:        | 28.03.2022                                                                                                          |
| Sub:                          | Water monitoring                                                                                                    |
| Material:                     | Drinking Water.                                                                                                     |
| Group:                        | Water                                                                                                               |

## CHEMICAL REPORT

Date of starting of Test 28.03.2022

Date of completion of Test: 06.04.2022

| Sl. No. | Specific Test Performed                   | Test Method                                          | Permissible limit<br>IS:10500/2012<br>( max) | Test Result                   |
|---------|-------------------------------------------|------------------------------------------------------|----------------------------------------------|-------------------------------|
|         |                                           |                                                      |                                              | GW1<br>Mines,( Bore Well)     |
|         |                                           |                                                      |                                              | Date of Collection 23.03.2022 |
| 1       | pH                                        | IS :3025,P-11, R.A 2009                              | 6.5 – 8.5                                    | 6.88 at 26.9°C                |
| 2       | Colour(Hazen unit)                        | APHA, 22 <sup>nd</sup> Edn, 2120 B                   | 15                                           | <1.0                          |
| 3       | Turbidity (NTU)                           | IS 3025 (P-10), R.A. 2006                            | 5                                            | 1.5                           |
| 4       | Temperature °C                            | APHA, 22 <sup>nd</sup> Edn, 2550 B                   | -                                            | 26.9°C                        |
| 5       | Total Hardness as CaCO <sub>3</sub> ,mg/l | IS 3025 (P-21), R.A. 2006                            | 600                                          | 24                            |
| 6       | Alkalinity as CaCO <sub>3</sub> ,mg/l     | IS 3025 (P-23), R.A. 2014                            | 600                                          | 32                            |
| 7       | Chlorides as Cl , mg/l                    | IS 3025, P-32                                        | 1000                                         | 8                             |
| 8       | Calcium as Ca, mg/l                       | APHA 22 <sup>nd</sup> EDN 3500 Ca B                  | 200                                          | 9.6                           |
| 9       | Magnesium as Mg, mg/l                     | APHA 22 <sup>nd</sup> EDN 3500 Mg B                  | 100                                          | <0.243                        |
| 10      | Residual Free Chlorine, mg/l              | IS 3025, P-34                                        | 1.0                                          | <1.0                          |
| 11      | Sulphate as SO <sub>4</sub> ,mg/l         | APHA, 22 <sup>nd</sup> Edn, 4500 SO <sub>4</sub> E   | 400                                          | <1.0                          |
| 12      | Nitrate as NO <sub>3</sub> , mg/l         | APHA, 22 <sup>nd</sup> Edn, 4500 NO <sub>3</sub> - B | 45                                           | 1.20                          |

Tested by

A. CHATTERJEE

Authorised Signatory

P. Dutta (Technical Manager)

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# SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

LABORATORY :

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Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)



TC-8066

## TEST REPORT

ULR-TC806622000000293F

|                                      |                                                                                                                                          |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Report No. N-826</b>              | <b>Date: 19.04.2022</b>                                                                                                                  |
| <b>Name and Address of Customer:</b> | <b>M/s. M.G. MOHANTY.</b><br><b>Patabeda Iron Mines (14.000Ha)</b><br><b>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</b> |
| <b>Work-order no. and Date:</b>      | <b>MGM/CO/2021/217 Dated:12/03/2021</b>                                                                                                  |
| <b>Sample receiving date:</b>        | <b>28.03.2022</b>                                                                                                                        |
| <b>Sub:</b>                          | <b>Water monitoring</b>                                                                                                                  |
| <b>Material:</b>                     | <b>Drinking Water.</b>                                                                                                                   |
| <b>Group:</b>                        | <b>Water</b>                                                                                                                             |

Date of starting of Test 28.03.2022 **CHEMICAL REPORT** Date of completion of Test: 06.04.2022

| Sl. No. | Specific Test Performed                                   | Test Method                            | Permissible limit IS:10500/2012 ( max)) | Test Result                                                |
|---------|-----------------------------------------------------------|----------------------------------------|-----------------------------------------|------------------------------------------------------------|
|         |                                                           |                                        |                                         | GW1<br>Mines,( Bore Well)<br>Date of Collection 23.03.2022 |
| 13      | Iron as Fe,mg/l                                           | APHA, 22 <sup>nd</sup> Edn, 3111 B     | 0.3                                     | 0.224                                                      |
| 14      | Copper as Cu,mg/l                                         | APHA, 22 <sup>nd</sup> Edn, 3111 B & C | 1.5                                     | <0.04                                                      |
| 15      | Manganese as Mn,mg/l                                      | APHA 22 <sup>nd</sup> Edn, 3111 B      | 0.3                                     | <0.03                                                      |
| 16      | Phenolic Compounds C <sub>6</sub> H <sub>5</sub> OH, mg/l | APHA, 22 <sup>nd</sup> Edn, 5530 D     | 0.002                                   | <0.002                                                     |
| 17      | Zinc as Zn, mg/l                                          | APHA, 22 <sup>nd</sup> Edn, 3111 B & C | 15.0                                    | <0.01                                                      |
| 18      | Cadmium as Cd, mg/l                                       | APHA, 22 <sup>nd</sup> Edn, 3111 B & C | 0.003                                   | <0.003                                                     |
| 19      | Arsenic as As, mg/l                                       | APHA, 22 <sup>nd</sup> Edn, 3120 B     | 0.05                                    | <0.01                                                      |
| 20      | Cyanide as CN, mg/l                                       | APHA, 22 <sup>nd</sup> Edn, 4500 E     | 0.05                                    | <0.05                                                      |
| 21      | Lead as pb                                                | --                                     | -                                       | <0.01                                                      |
| 22      | Total Chromium as Cr <sup>+6</sup> , mg/l                 | APHA, 22 <sup>nd</sup> Edn, 3500 B     | 0.05                                    | <0.05                                                      |
| 23      | Mineral oil ,mg/l                                         | IS :3025,P-39, R.A 2009                | 0.5                                     | <0.5                                                       |
| 24      | Fluoride as F, mg/l                                       | APHA, 22 <sup>nd</sup> Edn, 4500 F – D | 1.5                                     | <0.1                                                       |
| 25      | Total Dissolved solids (mg/l)                             | IS :3025, P-16, RA-2012                | 2000                                    | 41                                                         |
| 26      | Aluminium as Al mg/l                                      | APHA 22 <sup>nd</sup> Edn 3500 Al-B    | 0.2                                     | <0.2                                                       |
| 27      | Boron as B mg/l                                           | APHA 22 <sup>nd</sup> Edn 4500 B-B     | 1.0                                     | <1.0                                                       |
| 28      | Mercury as Hg, mg/l                                       | IS 3025, P-48, Mercury Analyser        | 0.001                                   | <0.001                                                     |

Tested by:

A. CHATTERJEE

Authorised Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)

## TEST REPORT

|                               |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Report No. N- 826             | Date: 19.04.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work-order no. and Date:      | MGM/CO/2021/217 Dated: 12/03/2021                                                                                   |
| Sample receiving date:        | 28.03.2022                                                                                                          |
| Sub:                          | Water monitoring                                                                                                    |
| Material:                     | Drinking Water.                                                                                                     |
| Group:                        | Water                                                                                                               |

Date of starting of Test 28.03.2022

### CHEMICAL REPORT

Date of completion of Test: 06.04.2022

| Sl. No. | Specific Test Performed | Test Method               | Permissible limit<br>IS:10500/2<br>012<br>( max)) | Test Result                   |
|---------|-------------------------|---------------------------|---------------------------------------------------|-------------------------------|
|         |                         |                           |                                                   | GW1<br>Mines,( Bore Well)     |
|         |                         |                           |                                                   | Date of Collection 23.03.2022 |
| 29      | Odour                   | IS 3025 (P-06), R.A. 1983 | Agreeable                                         | Agreeable                     |
| 30      | Taste                   | IS 3025 (P-07), R.A. 1984 | Agreeable                                         | Agreeable                     |

Tested by:

A. CHATTERJEE

Authorised Signatory

P. Dutta (Technical Manager)

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## TEST REPORT

|                               |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Report No. N- 826             | Date: 19.04.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work-order no. and Date:      | MGM/CO/2021/217 Dated: 12/03/2021                                                                                   |
| Sample receiving date:        | 28.03.2022                                                                                                          |
| Sub:                          | Water monitoring                                                                                                    |
| Material:                     | Drinking Water.                                                                                                     |

### TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test: 28.03.2022

Date of completion of Test: 06.04.2022

| Sl. No. | Specific Test Performed     | Test Method        | Permissible Limits as per 10500:2012 | Test Result                                                |
|---------|-----------------------------|--------------------|--------------------------------------|------------------------------------------------------------|
|         |                             |                    |                                      | GW1<br>Mines, (Bore Well)<br>Date of Collection 23.03.2022 |
| 1       | Coliform Organism / 100 ml. | As per IS: 1622-81 | Absent/100 ml                        | Absent                                                     |
| 2       | E. Coli / 100ml.            |                    | Absent/100 ml                        | Absent                                                     |

Tested by: *H. Roy*  
H. Roy R. Dasgupta

Authorised Signatory  
*P. Dutta*  
P. Dutta (Technical Manager)

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**SUPERINTENDENCE CO. OF INDIA (P) LTD.**

**ENVIRONMENTAL BASELINE DATA GENERATION  
AT**

**M/S – M.G.MOHANTY**

**PROJECT: Patabeda Iron & Manganese Mines (14.000 Ha)**

**REPORT FOR THE MONTH OF DECEMBER 2021**

\*\*\*\*\*

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TC-8066

## TEST REPORT

|                               |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| ULR-TC806622000000083F        |                                                                                                                     |
| REPORT NO. : N-577            | DATE: 31.01.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Ref. no. and Date:            | MGM/CO/2021/217 Dated:12/03/2021                                                                                    |
| Sample receiving date:        | 31.12.2021                                                                                                          |
| Sub:                          | Environmental monitoring                                                                                            |
| Material:                     | Ambient Air                                                                                                         |
| Group:                        | Atmospheric Pollution                                                                                               |

### CHEMICAL TEST RESULT

Date of starting of Test: 10.01.2022

Date of completion of Test: 17.01.2022

| S.N. | Specific Test Performed                      | Test Method Specification against which tests are performed | Permissible limit as per NAAQS-2009         | Test Results             |
|------|----------------------------------------------|-------------------------------------------------------------|---------------------------------------------|--------------------------|
|      |                                              |                                                             |                                             | Mines Quarry 19.12..2021 |
| 1.   | PM 2.5 ( $\mu\text{g}/\text{m}^3$ )          | USEPA CFR-40, PART-50, APPX-L                               | 60 ( $\mu\text{g}/\text{m}^3$ ) (24 Hours)  | 30.96                    |
| 2.   | PM 10 ( $\mu\text{g}/\text{m}^3$ )           | IS: 5182 PART-23 2006 RA-2012                               | 100 ( $\mu\text{g}/\text{m}^3$ ) (24 Hours) | 54.79                    |
| 4.   | SPM( $\mu\text{g}/\text{m}^3$ )              | IS: 5182 PART-4 1999 RA-2010                                | -                                           | 112.15                   |
| 5.   | SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ ) | IS: 5182 PART-2 2001 RA-2012                                | 80 ( $\mu\text{g}/\text{m}^3$ ) (24 Hours)  | 8.92                     |
| 6.   | NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ ) | IS: 5182 PART-6 2006 RA-2012                                | 80 $\text{mg}/\text{m}^3$ (1 Hour)          | 14.06                    |
| 7.   | CO ( $\text{mg}/\text{m}^3$ )                | IS:5182 PART-10 1999 RA-2009                                | 4 $\text{mg}/\text{m}^3$ (1 Hour)           | 0.342                    |

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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TC-8066

## TEST REPORT

| ULR-TC806622000000084F        |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Report No.: N-578             | Date - 31.01.2022                                                                                                   |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work Order No. and Date       | MGM/CO/2021/217 Dated:12/03/2021                                                                                    |
| Date of Sample Received:      | 31.12.2021                                                                                                          |
| Sub:                          | Environment Monitoring                                                                                              |
| Material:                     | Fugitive Dust Emission Monitoring                                                                                   |
| Group:                        | Atmospheric Pollution                                                                                               |

### FUGITIVE DUST EMISSION MONITORING CHEMICAL TEST

Date of starting of test: 10.01.2022

Date of completion of test: 17.01.2022

| Sl. No. | Name of Tests              | Test Method                    | Permissible Limit as per OPCB | Test Result              |
|---------|----------------------------|--------------------------------|-------------------------------|--------------------------|
|         |                            |                                |                               | NAME OF STATIONS         |
|         |                            |                                |                               | FD-1<br>Screening Plant  |
|         |                            |                                |                               | Sampling Collection Date |
|         |                            |                                |                               | 19/12/2021               |
| 01      | Particulate Matter (µg/m3) | IS:5182, PART-4, 2006, RA-2012 | 1200 (µg/m3)                  | 424.66                   |

Note: The result of tested parameter of Fugitive Air are found within Permissible Limits of OSPCB

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

## TEST REPORT

|                               |                                                                                                                      |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------|
| ULR-TC806622000000087F        |                                                                                                                      |
| REPORT NO. : N- 579           | DATE:31.01.2022                                                                                                      |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koiras, Dist.: Sundergarh, Odisha |
| Ref. no. and Date:            | MGM/CO/2021/217 Dated:12/03/2021                                                                                     |
| Sample receiving date:        | 31.12.2021                                                                                                           |
| Sub:                          | Environmental monitoring                                                                                             |
| Material:                     | Ambient Noise                                                                                                        |
| Group:                        | Atmospheric Pollution                                                                                                |

## TEST REPORT

| S. N. | Name of tests                    | Reference                       | Permissible limit as per:<br>Ambient Noise Level     |                     | Test Results               |
|-------|----------------------------------|---------------------------------|------------------------------------------------------|---------------------|----------------------------|
| 1.    | Equivalent Sound level dB(A) Leq | SUP/SOP/403<br>3SD &<br>IS:9989 | Standard as per Noise Pollution Regulation Rule-2000 |                     | Mines Quarry<br>19.12.2021 |
|       |                                  |                                 | Category of area Zone                                | Limits in dB(A) Leq | 62.32                      |
|       |                                  |                                 | 1. Industrial                                        | 75                  |                            |
|       |                                  |                                 | 2. Commercial                                        | 65                  |                            |
|       |                                  |                                 | 3. Residential                                       | 55                  |                            |
|       |                                  |                                 | 4. Silent                                            | 50                  |                            |

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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TC-8066

## TEST REPORT

|                               |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| ULR-TC80662200000086F         |                                                                                                                     |
| Report No N-555               | Date: 31.01.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work-order no. and Date:      | MGM/CO/2021/217 Dated:12/03/2021                                                                                    |
| Sample receiving date:        | 22.12.2021                                                                                                          |
| Sub:                          | Water monitoring                                                                                                    |
| Material:                     | Surface Water                                                                                                       |
| Group:                        | Water                                                                                                               |

## CHEMICAL REPORT

Date of starting of Test 06.01.2022

Date of completion of Test: 11. 01.2022

| Sl. No. | Specific Test Performed      | Test Method                          | Test Result                          |                                        |
|---------|------------------------------|--------------------------------------|--------------------------------------|----------------------------------------|
|         |                              |                                      | SW1<br>Up-Stream<br>Nalla(Kakarpani) | SW2<br>Down-Stream<br>Nalla(Kakarpani) |
|         |                              |                                      | Date of<br>Collection 15.12.21       | Date of Collection<br>15.12.21         |
| 1       | pH                           | IS :3025,P-11, R.A 2009              | 6.8 at 22°C                          | 6.7 at 22°C                            |
| 2       | Temperature                  | APHA 22 <sup>nd</sup> EDN 2550 B     | 22°C                                 | 22°C                                   |
| 3       | Turbidity(NTU)               | IS 3025 (P-10), RA2006               | 10.0                                 | 12.0                                   |
| 4       | Residual Free Chlorine mg/l  | IS 3025 (P-26), RA2009               | <1.0                                 | <1.0                                   |
| 5       | Alkalinity as CaCo3 mg/l     | IS 3025 (P-23), RA2014               | 20                                   | 24                                     |
| 6       | Chloride as Cl mg/l          | IS 3025 (P-32), RA2009               | 08                                   | 08                                     |
| 7       | Total Hardness as CaCo3 mg/l | IS 3025 (P-21), RA2006               | 20                                   | 28                                     |
| 8       | Calcium as Ca mg/l           | APHA 22 <sup>nd</sup> EDN 3500Ca B   | 8                                    | 10                                     |
| 9       | Magnesium as Mg mg/l         | APHA 22 <sup>nd</sup> EDN 3500 Mg B  | 0.243                                | 0.729                                  |
| 10      | Sulphate as So4 mg/l         | APHA 22 <sup>nd</sup> EDN 4500 SO4 E | 2.2                                  | 4.0                                    |
| 11      | Nitrate as No3 mg/l          | APHA 22 <sup>nd</sup> EDN 4500 NO3 B | 1.266                                | 1.358                                  |
| 12      | Fluoride as F mg/l           | APHA 22 <sup>nd</sup> EDN 4500 F D   | <0.1                                 | <0.1                                   |
| 13      | Total dissolve Solids mg/l   | IS 3025 (P-16), RA2012               | 32                                   | 33                                     |

Tested by:

*[Signature]*  
A. CHATTERJEE

Authorized Signatory

*[Signature]*  
P. DUTTA  
(Technical Manager)

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TC-8066

## TEST REPORT

| ULR-TC806622000000086F        |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Report No. N-555              | Date: 31.01.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work-order no. and Date:      | MGM/CO/2021/217 Dated: 12/03/2021                                                                                   |
| Sample receiving date:        | 22.12.2021                                                                                                          |
| Sub:                          | Water monitoring                                                                                                    |
| Material:                     | Surface Water                                                                                                       |
| Group:                        | Water                                                                                                               |

Date of starting of Test 06.01.2022

Date of completion of Test: 11.01.2022

| Sl. No. | Specific Test Performed     | Test Method                          | Test Result                          |                                        |
|---------|-----------------------------|--------------------------------------|--------------------------------------|----------------------------------------|
|         |                             |                                      | SW1<br>Up-Stream<br>Nalla(Kakarpani) | SW2<br>Down-Stream<br>Nalla(Kakarpani) |
|         |                             |                                      | Date of Collection<br>15.12.21       | Date of Collection<br>15.12.21         |
| 14      | Total Suspended Solids mg/l | APHA 22 <sup>nd</sup> EDN 2540 D     | 10                                   | 12                                     |
| 15      | D.O.                        | APHA 22 <sup>nd</sup> EDN 4500 O-C   | 4.4                                  | 4.2                                    |
| 16      | COD                         | APHA 22 <sup>nd</sup> EDN 5220 B     | 7                                    | 9                                      |
| 17      | Oil and Grease mg/l         | IS 3025 (P-39), RA2009               | <0.1                                 | <0.1                                   |
| 18      | Iron as Fe mg/l             | APHA 22 <sup>nd</sup> EDN 3111 B     | 0.362                                | 0.446                                  |
| 19      | Copper as Cu mg/l           | APHA 22 <sup>nd</sup> EDN 3111 B & C | <0.04                                | <0.04                                  |
| 20      | Zinc as Zn mg/l             | APHA 22 <sup>nd</sup> EDN 3111 B & C | <0.01                                | <0.01                                  |
| 21      | Aluminium as Al mg/l        | APHA 22 <sup>nd</sup> EDN 3500 Al-B  | <0.2                                 | <0.2                                   |
| 22      | Boron as B mg/l             | APHA 22 <sup>nd</sup> EDN 4500 B-B   | <1.0                                 | <1.0                                   |
| 23      | Manganese as Mn mg/l        | APHA 22 <sup>nd</sup> EDN 3111 B     | <0.03                                | <0.03                                  |
| 24      | Lead as Pb mg/l             | APHA 22 <sup>nd</sup> EDN 3120 B     | <0.01                                | <0.01                                  |

Tested by:

A. CHATTERJEE

Authorized Signatory

P. DUTTA  
(Technical Manager)

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# SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

## LABORATORY :

PLOT NO. Y-23, BLOCK-EP, SECTOR-V, SALT LAKE CITY, KOLKATA-700 091

☎ : (033) 2357-1492 / 4670 / 71 / 5039 - 44 • Fax : (033) 2357 - 4806

E-mail : supind50@yahoo.co.in / supind2019@gmail.com

Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)



TC-8066

## TEST REPORT

| ULR-TC806622000000086F        |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Report No. N-555              | Date:-31.01.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work-order no. and Date:      | MGM/CO/2021/217 Dated:12/03/2021                                                                                    |
| Sample receiving date:        | 22.12.2021                                                                                                          |
| Sub:                          | Water monitoring                                                                                                    |
| Material:                     | Surface Water                                                                                                       |
| Group:                        | Water                                                                                                               |

Date of starting of Test 06.01.2022

Date of completion of Test: 11.01.2022

| Sl. No. | Specific Test Performed     | Test Method                                      | Test Result                          |                                        |
|---------|-----------------------------|--------------------------------------------------|--------------------------------------|----------------------------------------|
|         |                             |                                                  | SW1<br>Up-Stream<br>Nalla(Kakarpani) | SW2<br>Down-Stream<br>Nalla(Kakarpani) |
|         |                             |                                                  | Date of<br>Collection<br>15.12.21    | Date of<br>Collection<br>15.12.21      |
| 25      | Cadmium as Cd mg/l          | APHA 22 <sup>nd</sup> EDN 3111 B & C             | <0.003                               | <0.003                                 |
| 26      | Arsenic as As mg/l          | APHA 22 <sup>nd</sup> EDN 3120 B                 | <0.05                                | <0.01                                  |
| 27      | Mercury as Hg mg/l          | IS 3025 (P-48)MURCURY ANALYSER                   | <0.001                               | <0.001                                 |
| 28      | Nickel as Ni mg/l           | APHA 22 <sup>nd</sup> EDN 3111 B & C             | <0.02                                | <0.02                                  |
| 29      | Total Chromium as Cr mg/l   | APHA 22 <sup>nd</sup> EDN 3500 B                 | <0.05                                | <0.05                                  |
| 30      | Phenolic compound mg/l      | APHA 22 <sup>nd</sup> EDN 5530 D                 | <0.002                               | <0.002                                 |
| 31      | Cyanide as CN mg/l          | APHA 22 <sup>nd</sup> EDN 4500 E                 | <0.05                                | <0.05                                  |
| 32      | Sulphide as S mg/l          | APHA 22 <sup>nd</sup> EDN 4500 S <sup>2</sup> -F | N.T                                  | N.T                                    |
| 33      | Free Ammonia as N mg/l      | IS 3025 (P-34)                                   | N.T                                  | N.T                                    |
| 34      | Kjeldahl Nitrogen as N mg/l | IS 3025 (P-34)                                   | 3                                    | 5                                      |
| 35      | Ammonia as N mg/l           | IS 3025 (P-34)                                   | <0.02                                | <0.02                                  |

Tested by:

A. CHATTERJEE

Authorized Signatory

P. DUTTA  
(Technical Manager)

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(An ISO 9001 : 2015 Certified)



TC-8066

## TEST REPORT

|                               |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| ULR-TC806622000000085F        |                                                                                                                     |
| Report No. N- 556             | Date: 31.01.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work-order no. and Date:      | MGM/CO/2021/217 Dated: 12/03/2021                                                                                   |
| Sample receiving date:        | 22.12.2021                                                                                                          |
| Sub:                          | Water monitoring                                                                                                    |
| Material:                     | Drinking Water.                                                                                                     |
| Group:                        | Water                                                                                                               |

## CHEMICAL REPORT

Date of starting of Test 22.12.2021

Date of completion of Test: 28.12.2021

| Sl. No. | Specific Test Performed                   | Test Method                                          | Permissible limit IS:10500/2012 ( max) | Test Result                   |
|---------|-------------------------------------------|------------------------------------------------------|----------------------------------------|-------------------------------|
|         |                                           |                                                      |                                        | GW1 Mines, ( Bore Well)       |
|         |                                           |                                                      |                                        | Date of Collection 15.12.2021 |
| 1       | pH                                        | IS :3025,P-11, R.A 2009                              | 6.5 – 8.5                              | 6.6 at 18°C                   |
| 2       | Colour(Hazen unit)                        | APHA, 22 <sup>nd</sup> Edn, 2120 B                   | 15                                     | <1.0                          |
| 3       | Turbidity (NTU)                           | IS 3025 (P-10), R.A. 2006                            | 5                                      | <1.0                          |
| 4       | Temperature °C                            | APHA, 22 <sup>nd</sup> Edn, 2550 B                   | -                                      | 18°C                          |
| 5       | Total Hardness as CaCO <sub>3</sub> ,mg/l | IS 3025 (P-21), R.A. 2006                            | 600                                    | 28                            |
| 6       | Alkalinity as CaCO <sub>3</sub> ,mg/l     | IS 3025 (P-23), R.A. 2014                            | 600                                    | 28                            |
| 7       | Chlorides as Cl <sup>-</sup> , mg/l       | IS 3025, P-32                                        | 1000                                   | 4                             |
| 8       | Calcium as Ca, mg/l                       | APHA 22 <sup>nd</sup> EDN 3500 Ca B                  | 200                                    | 11                            |
| 9       | Magnesium as Mg, mg/l                     | APHA 22 <sup>nd</sup> EDN 3500 Mg B                  | 100                                    | <0.243                        |
| 10      | Residual Free Chlorine, mg/l              | IS 3025, P-34                                        | 1.0                                    | <1.0                          |
| 11      | Sulphate as SO <sub>4</sub> ,mg/l         | APHA, 22 <sup>nd</sup> Edn, 4500 SO <sub>4</sub> E   | 400                                    | 1.2                           |
| 12      | Nitrate as NO <sub>3</sub> , mg/l         | APHA, 22 <sup>nd</sup> Edn, 4500 NO <sub>3</sub> - B | 45                                     | 0.402                         |

Tested by

A. CHATTERJEE

Authorised Signatory

P. Dutta (Technical Manager)

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Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ



TC-8066

## TEST REPORT

ULR-TC806622000000085F

|                               |                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Report No. N-556              | Date: 31.01.2022                                                                                                  |
| Name and Address of Customer: | M/s. M.G. MOHANTY., Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work-order no. and Date:      | MGM/CO/2021/217 Dated:12/03/2021                                                                                  |
| Sample receiving date:        | 22.12.2021                                                                                                        |
| Sub:                          | Water monitoring                                                                                                  |
| Material:                     | Drinking Water.                                                                                                   |
| Group:                        | Water                                                                                                             |

Date of starting of Test 22.12.2021

### CHEMICAL REPORT

Date of completion of Test: 28.12.2021

| Sl. No. | Specific Test Performed                                      | Test Method                            | Permissible limit<br>IS:10500/2<br>012<br>( max)) | Test Result                                          |
|---------|--------------------------------------------------------------|----------------------------------------|---------------------------------------------------|------------------------------------------------------|
|         |                                                              |                                        |                                                   | GW1                                                  |
|         |                                                              |                                        |                                                   | Mines, ( Bore Well)<br>Date of Collection 15.12.2021 |
| 13      | Iron as Fe,mg/l                                              | APHA, 22 <sup>nd</sup> Edn, 3111 B     | 0.3                                               | 0.211                                                |
| 14      | Copper as Cu,mg/l                                            | APHA, 22 <sup>nd</sup> Edn, 3111 B & C | 1.5                                               | <0.04                                                |
| 15      | Manganese as Mn,mg/l                                         | APHA, 22 <sup>nd</sup> Edn, 3111 B     | 0.3                                               | <0.03                                                |
| 16      | Phenolic Compounds<br>C <sub>6</sub> H <sub>5</sub> OH, mg/l | APHA, 22 <sup>nd</sup> Edn, 5530 D     | 0.002                                             | <0.002                                               |
| 17      | Zinc as Zn, mg/l                                             | APHA, 22 <sup>nd</sup> Edn, 3111 B & C | 15.0                                              | <0.01                                                |
| 18      | Cadmium as Cd, mg/l                                          | APHA, 22 <sup>nd</sup> Edn, 3111 B & C | 0.003                                             | <0.003                                               |
| 19      | Arsenic as As, mg/l                                          | APHA, 22 <sup>nd</sup> Edn, 3120 B     | 0.05                                              | <0.01                                                |
|         | Cyanide as CN, mg/l                                          | APHA, 22 <sup>nd</sup> Edn, 4500 E     | 0.05                                              | <0.05                                                |
| 21      | Lead as pb                                                   | -                                      | -                                                 | <0.01                                                |
| 22      | Total Chromium as Cr <sup>+6</sup> ,<br>mg/l                 | APHA, 22 <sup>nd</sup> Edn, 3500 B     | 0.05                                              | <0.05                                                |
| 23      | Mineral oil ,mg/l                                            | IS :3025,P-39, R.A 2009                | 0.5                                               | <0.5                                                 |
| 24      | Fluoride as F, mg/l                                          | APHA, 22 <sup>nd</sup> Edn, 4500 F - D | 1.5                                               | <0.1                                                 |
| 25      | Total Dissolved solids<br>(mg/l)                             | IS :3025, P-16, RA-2012                | 2000                                              | 36                                                   |
| 26      | Aluminium as Al mg/l                                         | APHA 22 <sup>nd</sup> Edn 3500 Al-B    | 0.2                                               | <0.2                                                 |
| 27      | Boron as B mg/l                                              | APHA 22 <sup>nd</sup> Edn 4500 B-B     | 1.0                                               | <1.0                                                 |
| 28      | Mercury as Hg, mg/l                                          | IS 3025, P-48, Mercury<br>Analyser     | 0.001                                             | <0.001                                               |

Tested by:

A. CHATTERJEE

Authorised Signatory

P. Dutta (Technical Manager)

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# SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

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GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)

## TEST REPORT

|                               |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Report No. N-556              | Date: 31.01.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work-order no. and Date:      | MGM/CO/2021/217 Dated: 12/03/2021                                                                                   |
| Sample receiving date:        | 22.12.2021                                                                                                          |
| Sub:                          | Water monitoring                                                                                                    |
| Material:                     | Drinking Water.                                                                                                     |
| Group:                        | Water                                                                                                               |

Date of starting of Test 22.12.2022

### CHEMICAL REPORT

Date of completion of Test: 28.12.2021

| Sl. No. | Specific Test Performed | Test Method               | Permissible limit<br>IS:10500/2<br>012<br>( max)) | Test Result                   |
|---------|-------------------------|---------------------------|---------------------------------------------------|-------------------------------|
|         |                         |                           |                                                   | GW1                           |
|         |                         |                           |                                                   | Mines,( Bore Well)            |
|         |                         |                           |                                                   | Date of Collection 15.12.2021 |
| 29      | Odour                   | IS 3025 (P-06), R.A. 1983 | Agreeable                                         | Agreeable                     |
| 30      | Taste                   | IS 3025 (P-07), R.A. 1984 | Agreeable                                         | Agreeable                     |

Tested by:

A. CHATTERJEE

Authorised Signatory

P. Dutta (Technical Manager)

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# SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

## LABORATORY :

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GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)

## TEST REPORT

|                               |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Report No. N- 556             | Date: 31.01.2022                                                                                                    |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron Mines (14.000Ha)<br>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha |
| Work-order no. and Date:      | MGM/CO/2021/217 Dated:12/.03/2021                                                                                   |
| Sample receiving date:        | 22.12.2021                                                                                                          |
| Sub:                          | Water monitoring                                                                                                    |
| Material:                     | Drinking Water.                                                                                                     |

### TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test: 22.12.2021

Date of completion of Test: 28.12.2021

| Sl. No. | Specific Test Performed     | Test Method        | Permissible Limits as per 10500:2012 | Test Result                           |
|---------|-----------------------------|--------------------|--------------------------------------|---------------------------------------|
|         |                             |                    |                                      | GW1<br>Mines,( Bore Well)<br>15.12.21 |
| 1       | Coliform Organism / 100 ml. | As per IS: 1622-81 | Absent/100 ml                        | Absent                                |
| 2       | E. Coli / 100ml.            |                    | Absent/100 ml                        | Absent                                |

Tested by:

R.Dasgupta H. Roy

Authorised Signatory

P. Dutta (Technical Manager)

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## ANNEXURE-G



**PHOTOGRAPH OF STP**



**PHOTOGRAPH OF ETP**



**ANNEXURE-H**

**LEASE DEED**

376

ORIGINAL

295(0)

M L NO . 1 1 6 7  
D a t e d 0 4 . 1 2 . 2 0 0 0

## **MINING LEASE DEED**

In favour of

**M/s M.G. MOHANTY  
REGD. OFFICE AT 2A, FOREST PARK,  
BHUBANESWAR – 751009**

### **MINERALS**

**Iron Ore**

#### **AREA**

**34.59 Acres or 14.00 Hectres**

**Village – Patabeda**

**PO – Malda, PS – Kolra**

**SRO / Tehasil – bonal**

**DISTRICT – SUNDARGARH**

Executed on 08.03.2006

Registered on 8.3.06

DSR Office, S.N.G.



Admissible under rule 25 duly stamped  
under the Indian stamp (Orissa Amend-  
ment) Act 2001 & I.P. Act 1996 under  
Sub-Art 6

SUNDARGARH

8/3/06

**FORM - K  
MINING LEASE**  
(See Rule - 31)

*Pankaj Mohanty*

THIS INDENTURE made this 8<sup>th</sup> day of  
March, 2006 between the Governor of Orissa /  
the President of India (hereinafter referred to as the  
'State Government' which expression shall where the  
context so admits be deemed to include the successors  
and assigns) of the one part and

For M/s. M.G. Mohanty

*Pankaj Mohanty*  
Partner

*[Signature]*  
Collector, Sundargarh



When the lessee  
is a registered  
firm

(1) Sri Rajiv Lochan Mohanty, aged about 56 years  
(2) Sri Kamal Lochan Mohanty, aged about 52 years,  
(3) Sri Padma Lochan Mohanty, aged about 51  
years, (4) Sri Pankaj Lochan Mohanty, aged about  
46 years, (5) Smt. Sabita Mohanty, aged about 57  
years and (6) Smt. Namita Mohanty, aged about 54  
years all are sons and daughters of late Mangovind  
Mohanty, all are residing at 2A Forest Park,  
Bhubaneswar, 751009, all are carrying on business in  
partnership under the firm name and style M/s M.G.  
Mohanty (name of the firm) registered under the Indian  
Partnership Act, 1932 (9 of 1932) and having their  
registered office at 2A Forest Park, Bhubaneswar,  
751009 represented through its Partner and General  
Power of Attorney holder Sri Pankaj Lochan  
Mohanty (hereinafter referred to as "the licensee"  
which expression where the context so admits be  
deemed to include all the said partners their respective  
heirs, executors, legal representatives and permitted  
assigns) of the other part.

For M/s. M.G. Mohanty

*Pankaj Lochan Mohanty*  
Partner

Page 2 of 49

*Bijala*  
Collector, Sindargarh



WHEREAS THE lessee has applied to the State Government in accordance with the Mineral Concession Rules, 1960 (hereinafter referred to as the said Rules) for a mining lease for Iron Ore in respect of the lands described in Part-I of the Schedule hereunder written and has deposited with the State Government the sum of Rs.10,000/- (Rupees Ten Thousand) only as security in Postal SB A/c. No.538413 dated 15.02.2006 of Sundargarh HO and the sum of Rs.1,000/- (Rupees One Thousand) only for meeting the preliminary expenses for a mining lease (and WHEREAS the Central Government has approved the grant of lease).

WITNESSETH that in consideration of the rents and royalties, covenants and agreements by and in these presents and the Schedule hereunder written reserved and contained and on the part of the lessee to be paid observed and performed, the State Government (with the approval of the Central Government) hereby grants and demises unto lessee vide Proceedings No.2739/SM Dtd.04.02.2006 of Government of Orissa,

For M/s. M.G. Mohanty

*Partner*  
Partner  
Page 3 of 49

*Collector*  
Collector, Sundargarh

**ANNEXURE: I**

**COPY OF APPROVAL OF  
MODIFICATION OF REVIEW OF MINIG PLAN** -----



भारत सरकार GOVERNMENT OF INDIA  
खान मंत्रालय MINISTRY OF MINES  
भारतीय खान ब्यूरो INDIAN BUREAU OF MINES  
क्षेत्रीय खान नियंत्रक के कार्यालय  
OFFICE OF THE REGIONAL CONTROLLER OF MINES



By Regd. Parcel / E-Mail  
Phone: 0674-2352463;  
Tele Fax: 0674-2352490;  
eMail:  
ro.bhubaneswar@ibm.gov.in  
Plot No.149, Pokhariput  
BHUBANESWAR-751020

No. RMP/A/42-ORI/BHU/2020-21

Date: 15.01.2021

To

Shri Rajib Lochan Mohanty,  
Nominated Owner, M/s M. G.  
Mohanty, 5A, Forest Park,  
Bhubaneswar, Odisha-751009

Sub: Approval of Review of Mining Plan of Patabeda Iron Mine along with Progressive Mine Closure Plan (PMCP) over an area of 14.00 ha in Sundargarh district of Odisha of M/s M. G. Mohanty submitted under Rule-17 of MCR, 2016.

- Ref: -i) Your letter no. MGM/CO/2020-21/12-155 dated 11.12.2020 received on 14.12.2020.  
ii) This office letter of even no. dated 14.12.2020.  
iii) This office letter of even no. dated 14.12.2020 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.  
iv) This office letter of even no. dated 23.12.2020.  
v) Your letter no. MGM/CO/2020-21/01-178 dated 07.01.2021 received on 12.01.2021.

Sir,

In exercise of the power delegated to me vide Gazette Notification No. S.O. 1857 (E) dated 18.05.2016, I hereby Approve the Review of Mining Plan including Progressive Mine Closure Plan of Patabeda Iron Mine over an area of 14.00 ha of M/s M. G. Mohanty in Sundargarh district of Odisha State submitted under Rule 17 of Mineral Concession Rules, 2016. This approval is subject to the following conditions:

- I. The Review of Mining Plan is approved without prejudice to any other law applicable to the mine area from time to time whether made by the Central Government, State Government or any other authority and without prejudice to any order or direction from any court of competent jurisdiction.
- II. The proposals shown on the plates and/or given in the document is based on the lease map /sketch submitted by the applicant/ lessee and is applicable from the date of approval.
- III. It is clarified that the approval of aforesaid Review of Mining Plan does not in any way imply the approval of the Government in terms of any other provision of Mines & Minerals (Development & Regulation) Act, 1957, or the Mineral Concession Rules, 2016 and any other laws including Forest (Conservation) Act, 1980. Environment (Protection) Act, 1986 or the rules made there under, Mines Act, 1952 and Rule & Regulations made there under.
- IV. Indian Bureau of Mines has not undertaken verification of the mining lease boundary on the ground and does not undertake any responsibility regarding correctness of the boundaries of the leasehold shown on the ground with reference to lease map & other plans furnished by the applicant / lessee.

Contd. Page-2



- V. At any stage, if it is observed that the information furnished, data incorporated in the document are incorrect or misrepresent facts, the approval of the document shall be revoked with immediate effect.
- VI. If this approval conflicts with any other law or court order / direction under any statute, it shall be revoked immediately.
- VII. Validity of this document shall expire on 07.03.2026.
- VIII. Next financial assurance shall be due for submission on 07.03.2026.

Encl: - One copy of approved  
Review of Mining Plan

भवदीय / yours faithfully,

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Copy for kind information to:-

1. The Director of Mines, Directorate of Mines, Government of Odisha, Heads of the Department Building, New Capital, Bhubaneswar- 751001, Odisha along with one copy of approved Review of Mining Plan by REGISTERED PARCEL.
2. Shri S. C. Nayak, Qualified Person, M/s Minesketch Consultants (P) Limited, Flat No-205, Bhagwan Tower, Cuttack Road, Bhubaneswar-751006.

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

**ANNEXURE: J**

**COPY OF ENVIRONMENTAL CLEARANCE**

No.J-11015/93/2004.IA.II (M)  
Government of India  
Ministry of Environment & Forests

Paryavaran Bhawan,  
C.G.O. Complex, Lodi Road,  
New Delhi – 110 003.

Dated: 21<sup>st</sup> July 2005

To  
Shri R.L.Mohanty,  
Managing Partner,  
M/s M.G.Mohanty  
2A, Forest Park,  
Bhubaneswar – 751009.

**Sub: Patabeda Iron Ore Mine (14 ha) of M/s M.G.Mohanty, in village Patabeda, Tehsil Bonai District Sundergarh, Orissa –environmental clearance- reg.**

Sir,

This has reference to the Department of Steel and Mines, Government of Orissa's letter No.III (B) SM.7/2001/8739/SM dated 01.11.2004 your letters dated 10.12.2004, and 07.02.2005 on the subject mentioned above. The Ministry of Environment and Forests has examined the application. It has been noted that the proposal is for opening a new **Patabeda Iron Ore Mine** of a total lease area of **14 ha** which is forestland in the Sidhamath Reserve Forest. Forestry clearance has been obtained on 12.01.2004 for 12.058 ha. There are no ecologically sensitive areas such as National Parks, Sanctuary, and Tiger Reserves within 10 km of the project site. The project does not involve displacement of people. Site clearance has been granted on 14.01.2005. Of the total lease area, 11.758 ha is for mining, 0.30 ha is for roads and 1.942 ha is green belt. Mining will be opencast by semi-mechanized method involving drilling and blasting. The proposal is for production of iron ore of **0.12 million tonnes per annum (MTPA)**. Mineral beneficiation is not involved. Mineral transportation of 400 TPD is by road. Peak water requirement of 20 m<sup>3</sup>/d will be met from Jurudi Nala. Water table is at 8-10m below ground level (pre-monsoon) and 0.5-5m bgl (post-monsoon). Ultimate working depth is 20m from top of hill and will not intersect water table. An estimated 1.31 million m<sup>3</sup> of OB will be generated over the life of mine. Backfilling proposed from 6<sup>th</sup> year of mining operation. NOC has been obtained from the Orissa State Pollution Control Board on 18.11.2004. IBM has approved the Mining Plan on 08.11.2002. The project is exempt from conduct of Public Hearing. Life of the mine at the rated capacity is 20 years. The capital project cost is **Rs. 200 lakhs**.

2. The Ministry of Environment and Forests hereby accords environmental clearance to the above referred **Patabeda Iron Ore Mine** of M/s M.G.Mohanty of a total lease area of **14 ha** for production of iron ore at 0.12 MTPA capacity under the provisions of the Environmental Impact Assessment Notification, 1994 and its subsequent amendments subject to strict compliance of the terms and conditions mentioned below:

**A. Specific conditions**

- (i) No mining operations or developmental activity shall be taken up in the remaining 1.942 ha of forestland till necessary forestry clearance has been obtained for the same.
- (ii) Overburden and mineral rejects should be stacked at earmarked site(s) /storage dumps of an area of 0.50 ha only outside the lease on temporary basis for a period of 5 years only.

Garland drains will be provided around the excavations to prevent storm water from catchment area to come in contact with freshly excavated areas. Toe drains will be provided all along the toe of the dump to arrest any soil erosion. Loose material slopes will be planted by making contour trenches at 2m intervals to check soil erosion.

- (iii) Check dams and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from the mining operations. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted and maintained.

Garland drain (size, gradient & length) and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.

- (iv) Mine water discharge and/or any wastewater should be properly treated to meet the prescribed standards before reuse/discharge.

Run-off from OB dumps and other surface run-off should be analysed for iron and in case its concentration is found higher than the permissible limit, the water should be treated before discharge/reuse.

- (v) Groundwater shall not be used for the mining operations. Prior permission shall be taken from the SGWB and from the MOEF for use of groundwater, if any.

- (vi) Drills should be wet operated with dust extractors and controlled blasting shall be practised.

- (vii) All service roads shall be black topped.

- ✓ (viii) A total area of 12.058 ha shall be afforested. This will include reclamation of 11.758 ha of mined out area/benches and 1,942 ha of safety zone. Plantation should also be raised along the roads, dump sites, all around the ML area, , by planting native plant species in consultation with local DFO/Agriculture Department. At least 2000 plant species/ha should be planted.

- (ix) Mining shall not intersect groundwater. Prior approval of the MOEF and CGWA shall be obtained for mining below groundwater.

- (x) Water harvesting and water conservation measures such as construction of check dams, ponds, water holes, in and around the mining lease area shall be undertaken.

- (xi) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers. The monitoring of ground water level should be done at least four times a year in pre-monsoon (April / May), monsoon (August), post-monsoon (November) and winter (January) seasons and for groundwater quality once (May). Data thus collected should be submitted to the Ministry of Environment & Forests and to Regional Office of the CGWB regularly.

- (xii) A "Consent to Operate" should be obtained from SPCB before starting mining activities.

- (xiii) A Conservation Plan shall be prepared for conservation of endangered fauna found in the forest area and shall be implemented in consultation with identified agencies/institutions and the State Government. The costs for the specific activities/tasks should be earmarked in the Conservation Plan and shall not be diverted for any other purpose. Year-wise status of the implementation of the Plan and the expenditure thereon should be reported to the Ministry of Environment & Forests, RO, Bhubaneswar.

- (xiv) A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

**B. General Conditions**

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.
- (ii) No change in the calendar plan including excavation, quantum of iron ore and waste produced should be made.
- (iii) Ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RPM, SPM, SO<sub>2</sub>, NO<sub>x</sub> & CO monitoring. Location of the stations should be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.
- (iv) Data on ambient air quality (RPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>) should be regularly submitted to the Ministry including its Regional office at Bhubaneswar and to the State Pollution Control Board / Central Pollution Control Board once in six months.
- (v) Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangements on haul roads, wagon loading, dumpers/trucks, loading & unloading points should be provided and properly maintained. Crushers and conveyors shall be enclosed and provided with dust extraction systems near the sources of generation.
- (vi) Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operations of HEMM, etc should be provided with ear plugs/muffs. Workers in Noise generating areas and engaged with noise generating machinery should be subjected to audiometric tests annually.
- (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<sup>th</sup> May, 1993 and 31<sup>st</sup> December, 1993 or as amended from time to time. Oil and grease trap and retention ponds should be installed before discharge of workshop effluents.
- (viii) The data on environmental quality should be collected and analysed either through an in-house environmental laboratory established with adequate number and type of pollution monitoring and analysis equipment or got analysed through an approved laboratory under the Environment (Protection) Rules, 1986 in consultation with the State Pollution Control Board.
- (ix) 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.
- (x) 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. Audiometric tests shall be taken annually for workers in noise generating areas and corrective measures undertaken if required.
- (xii) The 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 and its Regional Office located at Bhubaneswar.

- (xiii) The Regional Office of this 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.
  - (xiv) A copy of clearance letter will be marked to concerned Panchayat/local NGO, if any, from whom and suggestion/representation has been received while processing the proposal.
  - (xv) The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
  - (xv) The project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven 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 may also be seen at Web Site of the Ministry of Environment & Forests at <http://envfor.nic.in>, and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneswar.
3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.
4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance.
5. The above conditions will be enforced, inter alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

  
 (Dr.T.Chandini)  
 Additional Director

**Copy to:**

1. Secretary, Department of Steel and Mines, Government of Orissa, Secretariat, Bhubaneswar.
2. Secretary, Department of Environment & Forests, Government of Orissa, Secretariat, Bhubaneswar.
3. Chief Wildlife Warden, Government of Orissa, Secretariat, Bhubaneswar.
4. Principal Chief Conservator of Forests, Government of Orissa, Secretariat, Bhubaneswar.
5. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-32
6. Chairman, Orissa Pollution Control Board, Parivesh Bhawan, A/118, Nilkanthanagar, Unit VIII, Bhubaneswar-751012.
7. Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment and Forests, A-31, Chandrasekharpur, Bhubaneswar - 751 023
8. Controller General, Indian Bureau of Mines, 'Indira Bhawan', Civil Lines, NAGPUR-440 001.
9. Secretary, Ministry of Steel, Shastri Bhawan, New Delhi.
10. Secretary, Ministry of Mines, New Delhi.
11. District Collector, Sundergarh District, Government of Orissa, Sundergarh.
12. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Kasturba Gandhi Marg, New Delhi.
13. Guard file.      14. Monitoring File      15. Record file.

**ANNEXURE: K**

**COPY OF FOREST CLEARANCE**

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT & FORESTS  
EASTERN REGIONAL OFFICE  
A/3, CHANDRASEKHARPUR, BHUBANESWAR - 751 023  
TEL. : (Off.) 2301213, 2302432, 2302443, 2302452, 2302453  
FAX : 0674-2302432. GRAM : PARYAVARAN, BHUBANESWAR  
Email : mef@orl.nic.in

भारत सरकार  
पर्यावरण एवं वन मंत्रालय,  
पूर्वी क्षेत्रीय कार्यालय  
ए/3, चन्द्रशेखरपुर, भुवनेश्वर - 751 023  
तार - पर्यावरण, भुवनेश्वर

8(21)27/2003-FCE

January 5, 2006

To

The Principal Secretary,  
Forest & Environment Department,  
Govt. of Orissa,  
Bhubaneswar.

Sub:- Diversion of 12.058 ha of forest land for Iron Ore Mining in Village-  
Patabeda of Boani Forest Division of Sundergarh District, Orissa by M/s  
M.G.Mohanty of Bhubaneswar.

Ref:- 1. This Office letter No 8(21)27/2003-FCE December 29, 2005.  
2. Your letter No. No. 10F-(Con.)-79/2005.21702/F&E dated 19.12.2005.

Sir,

With reference to above cited subject, I am directed to inform that following is being stipulated as condition No.(xvii) and inserted in the said approval letter, other conditions remain unchanged. The condition (xvii) reads as follows:

- (xvii) The period of permission granted Under the Forest(Conservation) Act, 1980 shall be co-terminus with the period of current mining lease granted under MMRD Act.

Yours faithfully,

(S. MOHAPATRA)  
DEPUTY CONSERVATOR OF FORESTS(CENTRAL)

Copy to:-

1. The Inspector General of Forests(FC), Ministry of Environment & Forests, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi - 110 003.
2. The Principal Chief Conservator of Forests, Govt. of Orissa, Aranya Bhawan, C.S.Pur, Bhubaneswar - 16.
3. The Nodal Officer, O/o the Principal Chief Conservator of Forests, Govt. of Orissa, Aranya Bhawan, C.S.Pur, Bhubaneswar - 16.
4. The Divisional Forest Officer, Bonai Forest Division, Sundergarh.
5. M/s M.G. Mohanty, 2A, Forest Park, Bhubaneswar - 751 009.
6. Guard File.

*S. Mohapatra*  
DY. CONSERVATOR OF FORESTS(CENTRAL)  
5-1-2006

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT & FORESTS  
EASTERN REGIONAL OFFICE  
A/3, CHANDRASEKHARPUR, BHUBANESWAR - 751 023  
TEL. : (Off.) 2301213, 2302432, 2302443, 2302452, 2302453  
FAX : 0674-2302432. GRAM : PARYAVARAN, BHUBANESWAR  
Email : mef@ori.nic.in

8(21)27/2003-FCE

भारत सरकार  
पर्यावरण एवं वन मंत्रालय,  
पूर्वी क्षेत्रीय कार्यालय  
ए/3, चन्द्रशेखरपुर, भुवनेश्वर - 751 023  
तार - पर्यावरण, भुवनेश्वर  
December 29, 2005  
30

To

The Principal Secretary,  
Forest & Environment Department,  
Govt. of Orissa,  
Bhubaneswar.

Sub:- Diversion of 12.058 ha of forest land for Iron Ore Mining in Village-Patabeda of Bonai Forest Division of Sundergarh District, Orissa by M/s M.G.Mohanty of Bhubaneswar.

Sir,

I am directed to refer to your letter No. 10F-(Con.)-79/2005.21702/F&E dated 19.12.2005 on the above mentioned subject seeking prior approval of the Central Govt. in accordance with Section-2 of the Forest(Conservation) Act, 1980.

After careful consideration of the proposal of the State Government, the Central Government hereby conveys its approval under Section-2 of the Forest(Conservation) Act, 1980 for diversion of 12.058 ha of forest land for Iron Ore Mining in Village-Patabeda of Bonai Forest Division of Sundergarh District, Orissa by M/s M.G.Mohanty of Bhubaneswar, subject to the compliance of the following conditions:-

- i) Legal status of the forest land diverted shall remain unchanged.
- ii) Compensatory afforestation shall be raised and maintained over 13.166 ha of non-forest land; mutated in favour of State Forest Department and handed over to Forest Department at the project cost and the non-forest private land shall be declared as PF/RF. The Nodal Officer will submit a report regarding the above issue within 6 months.
- iii) The funds received from the User Agency towards compensatory afforestation and NPV shall be kept in fixed deposit in the name of concerned Divisional Forest Officer or the Nodal Officer(Forest Conservation) of the State. In this respect letter issued by Regional Office vide No. 7(27)2004-FCE dated 2.12.2005 shall be strictly adhered.
- iv) RCC pillars of 4 feet height shall be erected to demarcate the area by the user agency at the project cost and will be marked with forward and back bearing.
- v) Mining shall be done strictly as per the mining plan approved by the IBM and copy of revised Mining Plan(s) for subsequent five year periods shall be furnished to the Regional Office without fail.
- vi) Reclamation of mined out area as well as Over Burden dumps will be done as per a reclamation plan prepared in this regard. Progress of reclamation will be periodically monitored by the State Forest Department. Serious lapse in achieving reclamation targets shall invite severe action leading to even closure of mine.

CONTINUATION .....

- vii) The User agency will transfer the cost of fencing, protection, regeneration and maintenance of safety zone and cost of afforestation in degraded forestland elsewhere to the extent of one and half times of the safety zone area in favour of State Forest Department.
- viii) Trees standing in the diverted area shall be felled strictly as per requirement to break fresh land. Prior permission of the Divisional Forest Officer shall be obtained for felling trees.
- ix) Sufficient alternate fuel like coal, kerosene, cooking gas etc. shall be provided by the user agency or the contractors working under them to the labourers engaged in the project at project cost.
- x) The user agency shall ensure that no damage to the available wildlife or to the forest flora in the neighbouring forest is caused by labourers/workmen engaged by the project authorities or contractor working under them.
- xi) The forest land shall not be used for any purpose other than that specified in the proposal.
- xii) The User Agency shall make proportionate contribution towards implementation of the Regional Wild Life Management Plan prepared by the State Government for Bonai and Keonjhar Division. In addition site specific "Conservation Plan", if required, should also be prepared in consultation with the Chief Wildlife Warden for implementation in the lease hold area by the User Agency.
- xiii) Adequate soil and water conservation measures, as and when required, shall be taken by the User Agency in consultation with Forest Officials to check any soil erosion in the lease hold area.
- xiv) The User Agency shall obtain environmental clearance under provision of EIA Notification issued under Environmental Protection Act, before starting any work.
- xv) Any other conditions that the Central Government may impose from time to time in the interest of afforestation, conservation and management of flora and fauna in the area shall be complied by the user agency.
- xvi) In case of non-compliance of any of the above conditions, the concerned Divisional Forest officer shall report through the State Govt. to this office as per procedure laid down in the clause 1.9 of guidelines issued under Forest(Conservation) Act, 1980 on 25.10.1992.

Yours faithfully,

(S. MOHAPATRA)

DY. CONSERVATOR OF FORESTS(CENTRAL)

Copy to:-

1. The Inspector General of Forests(FC), Ministry of Environment & Forests, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi - 110 003.
2. The Principal Chief Conservator of Forests, Govt. of Orissa, Aranya Bhawan, C.S.Pur, Bhubaneswar - 16.
3. The Nodal Officer, O/o the Principal Chief Conservator of Forests, Govt. of Orissa, Aranya Bhawan, C.S.Pur, Bhubaneswar - 16.
4. The Divisional Forest Officer, Bonai Forest Division, Sundergarh.
5. M/s M.G. Mohanty, 2A, Forest Park, Bhubaneswar - 751 009.
6. Guard File.

*S. Mohapatra*  
DY. CONSERVATOR OF FORESTS(CENTRAL)

20.12.2005

**ANNEXURE: L**



**DRY FOG SYSTEM IN WORK**



**PHOTOGRAPH OF WET-DRILLING IN PROGRESS**

## **ANNEXURE-M**



**WATER SPRINKLING ON HAUL ROADS**

## ANNEXURE-N



**DRY FOG SYSTEM IN SCREENING UNIT**

## **ANNEXURE-O**



**PHOTOGRAPH SHOWING COVERED TRUCK USED FOR  
TRANSPORTATION**

## **ANNEXURE-P**



**PHOTOGRAPH OF DUMP SITE**

## **ANNEXURE-Q**

### **GROUND WATER LEVEL MONITORING DATA**

**WATER TABLE VARIATION DATA OF THE BUFFER ZONE OF PATABEDA IRON MINES  
OVER 14.00 HA. IN PATABEDA VILLAGE OF KOIRA TAHASIL/BLOCK OF  
SUNDERGARH DISTRICT OF ODISHA**

| Location/village            | Location              |                       | Dug/Bore Well water level in bgl (m) |        |           |        |
|-----------------------------|-----------------------|-----------------------|--------------------------------------|--------|-----------|--------|
|                             | Latitude              | Longitude             | Jan 2021                             | May 21 | August 21 | Nov 21 |
| Ganua<br>(Open Well)        | 21 <sup>0</sup> 55.64 | 85 <sup>0</sup> 22.02 | 4.18                                 | 3.50   | 1.55      | 3.40   |
| Patabeda<br>(OpenWell)      | 21 <sup>0</sup> 55.76 | 85 <sup>0</sup> 21.98 | 2.96                                 | 3.15   | 1.30      | 2.65   |
| Ganua<br>(Open Well)        | 21 <sup>0</sup> 55.31 | 85 <sup>0</sup> 23.17 | 5.88                                 | 1.75   | 1.70      | 2.80   |
| Khandabandha<br>(Open well) | 21 <sup>0</sup> 55.64 | 85 <sup>0</sup> 23.97 | 3.36                                 | 2.58   | 1.25      | 1.65   |

  
**Mines Manager**  
**Patabeda Iron Mines**  
**(14.000 Hects)**  
**of M/s. M. G. Mohanty**

## **ANNEXURE-R**



**PHOTOGRAPH OF PLANTATION SITE**

**ANNEXURE-S**

**COPY OF ANNUAL RETURN SUBMITTED TO IBM**

**Messrs M. G. Mohanty**  
Mine Owners

**Corporate Office :**  
5A Forest Park  
Bhubaneswar – 751 009, INDIA  
Ph: +91-674-2596400 / 2596410  
FAX : +91-674-2596390

**Mines Administrative Branch Office :**  
At/Po.:Barbil, Orissa – 758 035, INDIA  
Phone : +91-6767-275318,276319  
Fax : +91-6767-275770

E-mail : mgmbbsr@gmail.com  
mgmohantybo@gmail.com

MGM/BO/2021-22/06- 59  
Date: 30<sup>th</sup> June 2021.

To,

The Regional Controller of Mines,  
Indian Bureau of Mines,  
Plot No. 149, In front of CPWD Office,  
Pokhariput,  
Bhubaneswar - 751020.

Sub : **Submission of hardcopy of online Annual Return implemented by Indian Bureau of Mines for the year ending 31<sup>st</sup> March 2021 in respect of our Patabeda Iron Mines (14.000 Ha.)**

Sir,

Please find enclosed herewith a hardcopy of online Annual Return in Form H-1 implemented by Indian Bureau of Mines for the year 31<sup>st</sup> March 2021 in respect of our Patabeda Iron Mines (14.000 Ha).

Thanking You.

Yours faithfully,

For M/s. M. G. Mohanty



**Mines Manager**  
**Patabeda Iron Mines**  
**(14.000 Hects)**  
of M/s. M. G. Mohanty

Encl : As above.

This text is replaced by the Flash movie.

**"FORM H-1"**

For the financial Year 1st April 2020 to 31st March 2021

**ANNUAL RETURN**

[ See rule 45(5) (b) (i)]

**(Read the instructions carefully before filling the particulars)**

To,

- i. The Regional Controller Of Mines  
Indian Bureau Of Mines  
Bhubaneswar Region,

PIN:

( Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development Rules, 1988 )

- ii. The State Government of Orissa

**Part - I  
(General and Labour)**

**1. Details of the Mine**

|                                                                     |                       |
|---------------------------------------------------------------------|-----------------------|
| (a) Registration Number                                             | IBM/247/2011          |
| (b) Mine Code                                                       | 30ORI13054            |
| (c) Name of the Mineral                                             | IRON ORE              |
| (d) Name of Mine                                                    | PATABEDA IRON (14 HA) |
| (e) Name(s) of other Mineral(s), if any produced from the same mine |                       |

**2. Location of the Mine**

|              |                       |
|--------------|-----------------------|
| Village      | --                    |
| Post Office  | --                    |
| Tahsil/Taluk | --                    |
| District     | SUNDARGARH            |
| State        | ORISSA                |
| PIN Code     | --                    |
| Fax No.      | 06767275770           |
| Phone No.    | 06767275318           |
| Mobile No.   | 7440015202            |
| E-mail       | mgmohantybo@gmail.com |

**3. Name and Address of Lessee/Owner (along with fax no. and e-mail)**

|                |                                          |
|----------------|------------------------------------------|
| Name of Owner  | M G MOHANTY                              |
| Street/Village | 2A, FOREST PARK BHUBANESWAR, BHUBANESWAR |
| Post Office    | --                                       |
| Tahsil/Taluk   | --                                       |
| District       | KHURDA                                   |
| State          | ORISSA                                   |

|                                    |                                     |
|------------------------------------|-------------------------------------|
| Phone No                           | 06742596400                         |
| Mobile No                          | 9437022802                          |
| E-mail                             | mgmohantybo@gmail.com               |
| 4. Registered Office of the Lessee | 2A, Forest Park, Bhubaneswar-751009 |
| 5. Director in charge              | R L Mohanty                         |
| 6. Agent                           | Tanuj Mohanty                       |
| 7. Manager                         | Karun Kumar Mandal                  |
| 8. Mining Engineer in charge       | Balaram Behera                      |
| 9. Geologist in charge             | Dillip Kumar Pattanayak             |
| 10.(i) Transferer (previous owner) | Nil                                 |
| (ii) Date of Transfer              | 01-01-1970                          |

11. Particulars of area operated/Lease

(Furnish information on items (i) to (v) lease-wise in case mine workings cover more than one lease)

|                                                                                                             |                 |           |              |
|-------------------------------------------------------------------------------------------------------------|-----------------|-----------|--------------|
| Lease - 1                                                                                                   |                 |           |              |
| Lease No. allotted by State Govt.                                                                           | ML No -1167     |           |              |
| (i) Area under lease                                                                                        |                 |           |              |
| Under Forest                                                                                                | 14.000 hectares |           |              |
| Outside Forest                                                                                              | 0.000 hectares  |           |              |
| Total                                                                                                       | 14 hectares     |           |              |
| (ii) Date of execution of mining lease deed                                                                 | 08/03/2006      |           |              |
| (iii) Period of lease                                                                                       | 20              |           |              |
| (iv) Area for which surface rights are held (hectares)                                                      | 12.058 hectares |           |              |
| (v) (a) Date of renewal (if applicable)                                                                     | 00/00/0000      |           |              |
| (b) Period of renewal (if applicable)                                                                       | 0               |           |              |
| (vi) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced | Mine Name       | Mine Code | Mineral Name |
|                                                                                                             | --              | --        | --           |

12. Lease area (surface area) utilisation as at the end of year (hectares)

|                                                                                                           | Under forest   | Outside forest | Total |
|-----------------------------------------------------------------------------------------------------------|----------------|----------------|-------|
| (i) Already exploited & abandoned by opencast (O/C) mining                                                | 0.000          | 0.000          | 0.000 |
| (ii) Covered under current (O/C) Workings                                                                 | 2.898          | 0.000          | 2.898 |
| (iii) Reclaimed/Rehabilitated                                                                             | 0.000          | 0.000          | 0.000 |
| (iv) Used for waste disposal                                                                              | 2.204          | 0.000          | 2.204 |
| (v) Occupied by plant, buildings, residential, welfare buildings & roads                                  | 3.465          | 0.000          | 3.465 |
| (vi) Other Purpose (Retaining Wall, Garland drain, Settling Tank, Area utilized between road and quarry.) | 2.633          | 0.000          | 2.633 |
| (vii) Work done under progressive mine closure plan during the year                                       | 0.000          | 0.000          | 0.000 |
| 13. Ownership/exploiting Agency of the mine: (Public Sector/Private sector/Joint Sector)                  | Private Sector |                |       |

Part - II

Employment & Wages - I

| Description                                                                                                                                                                                                                                                                          | Wholly employed | Partly employed |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|
| (i) Graduate Mining Engineer                                                                                                                                                                                                                                                         | 1               | 0               |
| (ii) Diploma Mining Engineer                                                                                                                                                                                                                                                         | 1               | 0               |
| (iii) Geologist                                                                                                                                                                                                                                                                      | 1               | 0               |
| (iv) Surveyor                                                                                                                                                                                                                                                                        | 0               | 1               |
| (v) Other administrative and technical supervisory staff                                                                                                                                                                                                                             | 3               | 0               |
| Total                                                                                                                                                                                                                                                                                | 6               | 1               |
| 2. (i) Number of days the mine worked                                                                                                                                                                                                                                                | 304             |                 |
| (ii) No. of shifts per day                                                                                                                                                                                                                                                           | 1               |                 |
| (iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately. | Reason          | No of Days      |
|                                                                                                                                                                                                                                                                                      | 0               |                 |
|                                                                                                                                                                                                                                                                                      | 0               |                 |
|                                                                                                                                                                                                                                                                                      | 0               |                 |
|                                                                                                                                                                                                                                                                                      | 0               |                 |
|                                                                                                                                                                                                                                                                                      | 0               |                 |

## Employment &amp; Wages - II

## 3.(i) Employment of Labour and wages paid :-

Maximum number of persons employed on any one day during the year

|                                 |            |    |         |
|---------------------------------|------------|----|---------|
| (i) In workings below ground on | 00-00-0000 | 0  | Persons |
| (ii) In all in the mine on      | 22-06-2020 | 34 | Persons |

| Classification                                                              | Total number of man days worked during the year |          |       | No. of days worked during the year | Average daily number of persons employed |        |       | Total Wages /Salary bills for the year(in ) |
|-----------------------------------------------------------------------------|-------------------------------------------------|----------|-------|------------------------------------|------------------------------------------|--------|-------|---------------------------------------------|
|                                                                             | Direct                                          | Contract | Total |                                    | Male                                     | Female | Total |                                             |
| (1)                                                                         | 2(A)                                            | 2(B)     | 2(C)  | (3)                                | 4(A)                                     | 4(B)   | 4(C)  | (5)                                         |
| <b>A. Below Ground</b>                                                      |                                                 |          |       |                                    |                                          |        |       |                                             |
| (i) Foreman and mining mates                                                | 0                                               | 0        | 0     | 0                                  | 0                                        | 0      | 0     | 0.00                                        |
| (ii) Face workers and Loaders                                               | 0                                               | 0        | 0     | 0                                  | 0                                        | 0      | 0     | 0.00                                        |
| (iii) Others                                                                | 0                                               | 0        | 0     | 0                                  | 0                                        | 0      | 0     | 0.00                                        |
| <b>B. Opencast workings</b>                                                 |                                                 |          |       |                                    |                                          |        |       |                                             |
| (i) Foreman and mining mates                                                | 534                                             | 0        | 534   | 304                                | 1.8                                      | 0      | 1.8   | 697059.00                                   |
| (ii) Face workers and Loaders                                               | 0                                               | 0        | 0     | 0                                  | 0                                        | 0      | 0     | 0.00                                        |
| (iii) Others                                                                | 3805                                            | 0        | 3805  | 304                                | 12.5                                     | 0      | 12.5  | 4412757.00                                  |
| <b>C. Above ground</b>                                                      |                                                 |          |       |                                    |                                          |        |       |                                             |
| (i) Clerical & Supervisory Staff (excluding the superior supervisory staff) | 2083                                            | 0        | 2083  | 304                                | 6.9                                      | 0      | 6.9   | 2805029.00                                  |
| (ii) Workers in any Attached factories                                      | 0                                               | 0        | 0     | 0                                  | 0                                        | 0      | 0     | 0.00                                        |

Indian Bureau of Mines

|                                                                                                          |      |   |      |     |      |     |      |            |
|----------------------------------------------------------------------------------------------------------|------|---|------|-----|------|-----|------|------------|
| dressing plant                                                                                           |      |   |      |     |      |     |      |            |
| (iii) Others                                                                                             | 1809 | 0 | 1809 | 304 | 3.2  | 2.8 | 6    | 10469      |
| Total                                                                                                    | 8231 | 0 | 8231 | 304 | 24.4 | 2.8 | 27.2 | 8961       |
| 3.(ii) Total salaries paid to technical and supervisory staff employed in the mine during the year (in ) |      |   |      |     |      |     |      | 4545540.00 |

PART- II A Capital Structure

1. Value of Fixed Assets (in ) 0

(in respect of the mine, beneficiation plant, mine work-shop, power and water installation)

In case this information is furnished as combined information in another mine's return please specify mine Code/mine Name

| Mine Name                                                                                                                                                      | Mine Code                       | Mineral Name              |                                   |                              |                                 |                              |  | (in ) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------|-----------------------------------|------------------------------|---------------------------------|------------------------------|--|-------|
|                                                                                                                                                                |                                 |                           |                                   |                              |                                 |                              |  |       |
| Description                                                                                                                                                    | As at the beginning of the year | Additions during the Year | Sold or discarded during the year | Depreciation during the year | Net closing Balance (2+3)-(4+5) | Estimated market value(Tips) |  |       |
| (i) Land (Tips)                                                                                                                                                | 0                               | 0                         | 0                                 | 0                            | 0                               | 0                            |  |       |
| (ii) Building                                                                                                                                                  |                                 |                           |                                   |                              |                                 |                              |  |       |
| Industrial                                                                                                                                                     | 0                               | 0                         | 0                                 | 0                            | 0                               | 0                            |  |       |
| Residential                                                                                                                                                    | 0                               | 0                         | 0                                 | 0                            | 0                               | 0                            |  |       |
| (iii) Plant and Machinery including transport equipment                                                                                                        | 0                               | 0                         | 0                                 | 0                            | 0                               | 0                            |  |       |
| (iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc. (As prescribed under Income Tax Act) | 0                               | 0                         | 0                                 | 0                            | 0                               | 0                            |  |       |
| Total                                                                                                                                                          | 0                               | 0                         | 0                                 | 0                            | 0                               | 0                            |  |       |

2. Source of Finance (as at the end of the year) (in ) :

|                                     |                |                  |
|-------------------------------------|----------------|------------------|
| (i) Paid up Share Capital           | 0              |                  |
| (ii) Own Capital                    | 0              |                  |
| (iii) Reserve & Surplus (All Types) | 0              |                  |
| (iv) Long Term loans outstanding    | 0              |                  |
| Name of the Institution/Source      | Amount of Loan | Rate of Interest |
| xxx                                 | 0              | 0                |

3. Interest and Rent (in ~)

|                                                          |          |
|----------------------------------------------------------|----------|
| (i) Interest paid during the year                        | 12990255 |
| (ii) Rents (excluding surface rent) paid during the year | 486216   |

Part - III

CONSUMPTION OF MATERIALS

1. Quantity and cost of material consumed during the year

Description

|                                                   |        |        |          |
|---------------------------------------------------|--------|--------|----------|
| (a) Coal                                          | Tonnes | 0      | 0        |
| (b) Diesel Oil                                    | Ltrs   | 155279 | 12388185 |
| (c) Petrol                                        | Ltrs   | 0      | 0        |
| (d) Kerosene                                      | Ltrs   | 0      | 0        |
| (e) Gas                                           | Cu.M.  | 0      | 0        |
| (ii) Lubricant                                    |        |        |          |
| (a) Lubricant oil                                 | Ltrs   | 3159   | 557844   |
| (b) Grease                                        | kgs.   | 380    | 73386    |
| (iii) Electricity                                 |        |        |          |
| (a) Consumed                                      | Kwh    | 0      | 0        |
| (b) Generated                                     | Kwh    | 0      | 0        |
| (c) Sold                                          | Kwh    | 0      | 0        |
| (iv) Explosives (furnish full details in Part IV) |        |        | 0        |
| (v) Tyres                                         | Nos.   | 19     | 402400   |
| (vi) Timber & Supports                            |        |        | 0        |
| (vii) Drill rods & kits                           | Nos.   | 0      | 0        |
| (viii) Other spares & stores                      |        |        | 1056085  |

## 2. Royalty and Rents (in )

| Item             | Paid for current year | Paid towards past arrears |
|------------------|-----------------------|---------------------------|
| (a) Royalty      | 69190757              | 0                         |
| (b) Dead rent    | 27768                 | 0                         |
| (c) Surface rent | 36125                 | 0                         |

## 3. Compensation paid for felling trees during the year (in )

## 4. Depreciation on fixed assets (in )

3810730

## 5. Taxes and cesses

| Item                                                 | Amount in paid during the year to |             |
|------------------------------------------------------|-----------------------------------|-------------|
|                                                      | Central Govt.                     | State Govt. |
| (i) Sales Tax                                        | 15210324                          | 8131619     |
| (ii) Welfare cess                                    | 0                                 | 0           |
| (iii) Other taxes & cesses:-                         |                                   |             |
| (a) Mineral cess                                     | 0                                 | 0           |
| (b) Cess on dead rent                                | 0                                 | 0           |
| (c) Others (please specify):<br>Road Tax , Water Tax | 0                                 | 385682      |

## 6. Other expenses (in )

|                                                     |          |
|-----------------------------------------------------|----------|
| (i) Overheads                                       | 69458221 |
| (ii) Maintenance                                    | 1856173  |
| (iii) Money value of other benefits paid to workmen | 7677259  |
| (iv) Payment made to professional agencies          | 6297750  |

## Part - IV

## Consumption of Explosives

kg/tonne, numbers, metres )

|            |        |   |
|------------|--------|---|
| Explosives | Kg     | 0 |
| Detonators | Nos.   | 0 |
| Fuses      | Meters | 0 |

2. Total production during the year (in Tonne)

117800.000

3. Overburden removed (in Tonne)

39880

| Classification of Explosives                               | Unit | Quantity consumed during the year |                          | Estimated requirement during the next year |                          |
|------------------------------------------------------------|------|-----------------------------------|--------------------------|--------------------------------------------|--------------------------|
|                                                            |      | Small dia. (upto 32 mm)           | Large dia. (above 32 mm) | Small dia. (upto 32 mm)                    | Large dia. (above 32 mm) |
| 1. Gun Powder                                              | Kg   | 0                                 |                          | 0                                          |                          |
| 2. Nitrate Mixture                                         |      |                                   |                          |                                            |                          |
| (a) Loose ammonium nitrate                                 | Kg   | 0                                 | 0                        | 0                                          | 0                        |
| (b) Ammonium nitrate in cartridge form                     | Kg   | 0                                 | 0                        | 0                                          | 0                        |
| 3. Nitro Compound                                          | Kg   | 0                                 | 0                        | 0                                          | 0                        |
| 4. Liquid Oxygen soaked cartridges                         | Kg   | 0                                 | 0                        | 0                                          | 0                        |
| 5. Slurry explosives (Mention different trade names):<br>0 | Kg   | 0                                 | 0                        | 0                                          | 0                        |
| 6. Detonators                                              |      |                                   |                          |                                            |                          |
| (i) Ordinary                                               | Nos. | 0                                 |                          | 0                                          |                          |
| (ii) Electrical                                            |      |                                   |                          |                                            |                          |
| (a) Ordinary                                               | Nos. | 0                                 |                          | 0                                          |                          |
| (b) Delay                                                  | Nos. | 0                                 |                          | 0                                          |                          |
| 7. Fuse                                                    |      |                                   |                          |                                            |                          |
| (a) Safety Fuse                                            | Mts  | 0                                 |                          | 0                                          |                          |
| (b) Detonating Fuse                                        | Mts  | 0                                 |                          | 0                                          |                          |
| 8. Plastic ignition cord                                   | Mts  | 0                                 |                          | 0                                          |                          |
| 9. Others (specify):                                       |      | 0                                 |                          | 0                                          |                          |

## Part - V

General Geology &amp; Mining (Sec 1/2 for Iron Ore)

1. Mineral(s) worked and their characteristics : (In case more than one mineral is worked, the information asked for under (a) to (c) in respect of the remaining mineral(s) may be furnished in a separate sheet and attached with the return)

|                                                                    |                                                                            |
|--------------------------------------------------------------------|----------------------------------------------------------------------------|
| (a) Name of Mineral                                                | Iron Ore                                                                   |
| (b) Type of Ore (Tick mark whichever is applicable)                | <input checked="" type="checkbox"/> Lump<br><input type="checkbox"/> Fines |
| (c) Quality: Chemical Analysis of Typical Grades Produced for Lump |                                                                            |
| <b>Constituent</b>                                                 | <b>Grade</b>                                                               |
| (i) Size Range                                                     | Lumps 5 to 18 mm                                                           |
| (ii) Principal Constituent                                         | Fe 65.46                                                                   |
| (iii) Subsidiary Constituent                                       | SiO <sub>2</sub> 1.79                                                      |
|                                                                    | Al <sub>2</sub> O <sub>3</sub> 1.45                                        |
|                                                                    | P 0.01                                                                     |
| <b>Constituent</b>                                                 | <b>Grade</b>                                                               |
| (i) Size Range                                                     | Lumps 10 to 40 mm                                                          |
| (ii) Principal Constituent                                         | Fe 64.38                                                                   |
| (iii) Subsidiary Constituent                                       | SiO <sub>2</sub> 2.45                                                      |

## (c) Quality: Chemical Analysis of Typical Grades Produced for Fines

| Constituent                  | Grade                               |
|------------------------------|-------------------------------------|
| (i) Size Range               | Fines <10 mm                        |
| (ii) Principal Constituent   | Fe 62.80                            |
| (iii) Subsidiary Constituent | SiO <sub>2</sub> 3.83               |
|                              | Al <sub>2</sub> O <sub>3</sub> 1.58 |
|                              | P 0.03                              |

- (a) Name of rock/mineral excavated and disposed as waste BHJ, BHQ, Shale  
 (b) Name(s) of the ore/mineral excavated but not sold i.e., mineral reject xxx  
 (c) Typical analysis of mineral reject(s)

| Constituent | Grade % |
|-------------|---------|
| Fe          | 0       |

## Sec 3 for Iron Ore

## 3. Reserves and Resources estimated at the end of the year

| Classification                        | Code | Quantity | Grade<br>(as per NMI grades<br>as indicated in the<br>mining plan) |
|---------------------------------------|------|----------|--------------------------------------------------------------------|
| (1)                                   | (2)  | (3)      | (4)                                                                |
| Total Mineral Resources<br>(A + B)    |      |          |                                                                    |
| A. Mineral Reserve                    |      |          |                                                                    |
| 1. Proved Mineral Reserve             | 111  | 398602   | Lump Medium Grade                                                  |
|                                       | 121  | 0        |                                                                    |
| 2. Probable Mineral Reserve           | 122  | 46740    | Lump Low Grade                                                     |
| B. Remaining Resources                |      |          |                                                                    |
| 1. Feasibility Mineral Resource       | 211  | 142463   | Lump Low Grade                                                     |
|                                       | 221  | 0        |                                                                    |
| 2. Prefeasibility Mineral Resource    | 222  | 234      | Lump Low Grade                                                     |
| 3. Measured Mineral Resource          | 331  | 0        |                                                                    |
| 4. Indicated Mineral Resource         | 332  | 0        |                                                                    |
| 5. Inferred Mineral Resource          | 333  | 0        |                                                                    |
| 6. Reconnaissance Mineral<br>Resource | 334  | 0        |                                                                    |

## 4. Mining Operations during the year

## 4.1 Exploration

| Item      | Grid in Meters | Meterage | Number |
|-----------|----------------|----------|--------|
| Drilling  | 50x50          | 0        | 0      |
| Trenching |                | 0        | 0      |
| Pitting   |                | 0        | 0      |

## 4.2 Opencast

## (A) Details of Benches (Separately for mechanised and manual sections)

In ore

In OB/Waste

(i) Number of Benches

|                                                                         |                       |                        |   |
|-------------------------------------------------------------------------|-----------------------|------------------------|---|
| (iii) Depth of the deepest working from adjacent ground (Meters)        | Mechanised            | 0                      | 0 |
| (B) (i) Total ROM Ore production (tonnes)                               |                       | 117800                 |   |
| (C) Total quantity of Overburden/Waste removed during the year (tonnes) |                       | 0                      |   |
| Overburden/Waste                                                        | During the year       | Cumulative             |   |
| (i) Quantity back filled                                                | 0                     | 0                      |   |
| (ii) Quantity disposed of in external dumps                             | 39880                 | 249879                 |   |
| 4.3 Underground                                                         |                       |                        |   |
| (a) Driving (metres) in ore                                             |                       | 0                      |   |
| (b) Cross Cutting/Footwall Drives (in barren) (Metres)                  |                       | 0                      |   |
| (c) Winzing (meters)                                                    |                       | 0                      |   |
| (d) Raising (meters)                                                    |                       | 0                      |   |
| (e) Shaft sinking (meters)                                              |                       | 0                      |   |
| (f) Stope preparation (meters)                                          |                       | 0                      |   |
| (g) Tonnage of ore blocked for stopping (tonnes)                        |                       | 0                      |   |
| (h) Quantity of waste removed (tonnes)                                  |                       | 0                      |   |
| 4.4 (i) Number of trees planted during the year                         |                       |                        |   |
|                                                                         | (a) Within lease area | (b) Outside lease area |   |
| (i) Number of trees planted during the year                             | 136                   | 352                    |   |
| (ii) Survival rate in percentage                                        | 81.00                 | 74                     |   |

## Sec 4. Mineral Rejects for Iron Ore

## 4.2 Opencast

## 4.2(B) (ii) Mineral Rejects generated with grades (tonnes)

|             |   |
|-------------|---|
| a. Quantity | 0 |
| b. Grade    | 0 |

## 4.3 Underground

## 4.3(i) Mineral Rejects generated with grades (tonnes)

|             |   |
|-------------|---|
| a. Quantity | 0 |
| b. Grade    | 0 |

## Sec 5/6/8/9

5. Type and aggregate Horse Power of Machinery: Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc. Details of any new machinery added during the year may be furnished with cost.

| Type of machinery | Capacity of each unit | No. of units | Electrical/ Non-Electrical (specify) | Used in opencast/ underground (specify) |
|-------------------|-----------------------|--------------|--------------------------------------|-----------------------------------------|
| BACK HOE          | 1.500 CUM             | 1            | Non Electrical                       | Opencast                                |
| WHEEL LOADER      | 1.800 CUM             | 1            | Non Electrical                       | Opencast                                |
| TIPPER            | 6.000 CUM             | 1            | Non Electrical                       | Opencast                                |
| DUMPER            | 25.000 TONNE          | 2            | Non Electrical                       | Opencast                                |
| WATER TANKER      | 9000.000 LITRE        | 1            | Non Electrical                       | Opencast                                |
| BLAST HOST DRILL  | 110.000 MM            | 1            | Non Electrical                       | Opencast                                |

6. (i) Give details of future plans, if any, of exploration and development, production schedule, replacements and expansion of machinery and equipment etc.

5 nos of core drill will be done during the year 2021-22.

- (ii) If you have laboratory facilities for R & D then give a brief description:

We have no laboratory facilities for R & D.

up-to-date (as required under rule 28 of MCDR)

9. Please indicate the salient features which affected mining operations during the year.

Mining operation was affected during rainy season due high moisture content in the ROM Ore.

#### Sec 7 for Iron Ore

7. (i) Details of mineral Treatment Plant, if any. Give a brief description of the process capacity of the machinery deployed and its availability. (Enclose Flow Sheet and Material Balance of the Plant)

There is no mineral treatment plant.

(ii) Furnish following information every year:

| Item                    | Tonnage | Average Grade |
|-------------------------|---------|---------------|
| Feed                    | 0       | 0             |
| Concentrates            | 0       | 0             |
| By-products/Co-products | 0       | 0             |
| Tailings                | 0       | 0             |

#### Part - VI(PRODUCTION, DISPATCHES & STOCKS )

##### 1. Type of Ore Produced

Type of ore produced: (a) Hematite

##### 2. Production and Stocks of ROM ore at Mine-head ( IRON ORE (Hematite) )

| Category               | Opening stock<br>(in tonne) | Production<br>(in tonne) | Closing stock<br>(in tonne) |
|------------------------|-----------------------------|--------------------------|-----------------------------|
| (a) Open Cast Workings | 29314.000                   | 117800.000               | 10654.000                   |
| (b) Dump Workings      | 0.000                       | 0.000                    | 0.000                       |

##### 3. Grade-wise production, Despatches, Stocks and Ex-mine prices of Processed ore ( IRON ORE (Hematite) )

| Grades (% of Fe content)  | Opening stock<br>at mine head<br>(in tonne) | Production (in<br>tonne) | Despatches<br>from mine<br>head<br>(in tonne) | Closing<br>stock at<br>mine head (in<br>tonne) | Ex-mine<br>price<br>(in Per<br>Tonne) |
|---------------------------|---------------------------------------------|--------------------------|-----------------------------------------------|------------------------------------------------|---------------------------------------|
| <b>(i) Lumps</b>          |                                             |                          |                                               |                                                |                                       |
| (a) Below 55%             | 0.000                                       | 0.000                    | 0.000                                         | 0.000                                          | 0.00                                  |
| (b) 55% to below 58%      | 0.000                                       | 0.000                    | 0.000                                         | 0.000                                          | 0.00                                  |
| (c) 58% to below 60%      | 0.000                                       | 0.000                    | 0.000                                         | 0.000                                          | 0.00                                  |
| (d) 60% to below 62%      | 9437.330                                    | 22770.000                | 23956.230                                     | 8251.100                                       | 4918.61                               |
| (e) 62% to below 65%      | 5931.740                                    | 33780.000                | 25209.810                                     | 14501.930                                      | 6334.94                               |
| (f) 65% and above         | 30.812                                      | 0.000                    | 0.000                                         | 30.812                                         | 0.00                                  |
| <b>(ii) Fines</b>         |                                             |                          |                                               |                                                |                                       |
| (a) Below 55%             | 492.410                                     | 0.000                    | 0.000                                         | 492.410                                        | 0.00                                  |
| (b) 55% to below 58%      | 324.970                                     | 13850.000                | 0.000                                         | 14174.970                                      | 3751.00                               |
| (c) 58% to below 60%      | 0.000                                       | 0.000                    | 0.000                                         | 0.000                                          | 0.00                                  |
| (d) 60% to below 62%      | 15634.660                                   | 63900.000                | 55302.070                                     | 24232.590                                      | 2675.36                               |
| (e) 62% to below 65%      | 13779.810                                   | 2160.000                 | 15929.650                                     | 10.160                                         | 2727.78                               |
| (f) 65% and above         | 189.558                                     | 0.000                    | 0.000                                         | 189.558                                        | 0.00                                  |
| <b>(iii) Concentrates</b> |                                             |                          |                                               |                                                |                                       |
| (a) Concentrates          | 0.000                                       | 0.000                    | 0.000                                         | 0.000                                          | 0.00                                  |

##### 4. Details of Deductions used for computation of Ex-mine price (in /Tonne)( IRON ORE (Hematite) )

| Deduction claimed | Amount (in /Tonne) |
|-------------------|--------------------|
|-------------------|--------------------|

|                                                                                   |      |   |
|-----------------------------------------------------------------------------------|------|---|
| (b) Loading and Unloading charges                                                 | 0.00 | 0 |
| (c) Railway freight ,if applicable (indicate destination and distance in remarks) | 0.00 | 0 |
| (d) Port Handling charges/export duty (indicate name of port in remarks)          | 0.00 | 0 |
| (e) Charges for Sampling and Analysis                                             | 0.00 | 0 |
| (f) Rent for the plot at Stocking yard                                            | 0.00 | 0 |
| (g) Other charges (specify clearly in remarks):                                   | 0.00 | 0 |
| Total (a) to (g)                                                                  | 0.00 |   |

## 5. Sales/Dispatches effected for Domestic Consumption and for exports ( IRON ORE (Hematite) )

| Grade                   | Nature of Dispatch<br>(indicate whether Domestic Sale or Domestic Transfer or Captive consumption or Export) | Registration number as allotted by the Indian Bureau of Mines to the buyer | For Domestic Consumption       |                     |                  | For export |                     |                   |
|-------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------|---------------------|------------------|------------|---------------------|-------------------|
|                         |                                                                                                              |                                                                            | Consignee name                 | Quantity (in Tonne) | Sale value (in ) | Country    | Quantity (in Tonne) | F.O.B Value (in ) |
| 60% to below 62%, Lumps | DOMESTIC SALE                                                                                                | 21853                                                                      | A R Corporation                | 8960.050            | 52450412.00      | --         | --                  | --                |
| 60% to below 62%, Lumps | DOMESTIC SALE                                                                                                | 165                                                                        | shree ganesh metalliks limited | 3986.170            | 12157818.50      | --         | --                  | --                |
| 60% to below 62%, Lumps | DOMESTIC SALE                                                                                                | 371                                                                        | MAA SAMLESWARI INDUSTRIES (P)  | 76.950              | 242392.50        | --         | --                  | --                |
| 60% to below 62%, Lumps | DOMESTIC SALE                                                                                                | 4144                                                                       | PAWANJAY SPONGE IRON LIMITED   | 2996.260            | 9138593.00       | --         | --                  | --                |
| 60% to below 62%, Lumps | DOMESTIC SALE                                                                                                | 322                                                                        | Gopal Sponge &&&&&             | 1995.090            | 10673731.50      | --         | --                  | --                |
| 60% to below 62%, Lumps | DOMESTIC SALE                                                                                                | 20422                                                                      | Hind Unitrade Pvt Ltd          | 1996.330            | 11379081.00      | --         | --                  | --                |
| 60% to below 62%, Lumps | DOMESTIC SALE                                                                                                | 5519                                                                       | NRVS STEELS LIMITED            | 1993.070            | 15346639.00      | --         | --                  | --                |
| 60% to below 62%, Lumps | DOMESTIC SALE                                                                                                | 5294                                                                       | MAA MAHAMAYA INDUSTRIES LIMITE | 1952.310            | 6442623.00       | --         | --                  | --                |
| 62% to below 65%, Lumps | DOMESTIC SALE                                                                                                | 554                                                                        | HITECH POWER AND STEEL LIMITED | 1960.130            | 6566435.50       | --         | --                  | --                |
| 62% to                  | DOMESTIC                                                                                                     | 10127                                                                      | DEVI IRON                      | 1541.070            | 5485500.50       | --         | --                  | --                |

|                                  |                  |       |                                      |           |             |    |    |    |
|----------------------------------|------------------|-------|--------------------------------------|-----------|-------------|----|----|----|
| 65%,<br>Lumps                    |                  |       |                                      |           |             |    |    |    |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 322   | Gopal Sponge<br>& & & Pow            | 991.380   | 3345907.50  | -- | -- | -- |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 5294  | MAA MAHAMAYA<br>INDUSTRIES LIMITE    | 1998.220  | 7193592.00  | -- | -- | -- |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 474   | UTKAL METALLICS<br>LIMITED           | 990.640   | 5919074.00  | -- | -- | -- |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 20422 | Hind Unitrade Pvt Ltd                | 1983.300  | 11899800.00 | -- | -- | -- |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 5668  | SHANTI GOPAL<br>CONCAST LIMITED      | 3847.520  | 32319168.00 | -- | -- | -- |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 4569  | Rathi Steel And<br>Power Limited     | 1378.520  | 10890308.00 | -- | -- | -- |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 1267  | SHIV METTALICKS<br>PVT.LTD           | 2997.580  | 21882334.00 | -- | -- | -- |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 23138 | Canvas Projects Pvt<br>Ltd           | 998.200   | 7686140.00  | -- | -- | -- |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 5312  | CHINTPURNI<br>STEEL PVT. LTD.        | 2543.110  | 18183236.50 | -- | -- | -- |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 5702  | RASHMI ISPAT<br>LIMITED              | 1984.760  | 14191034.00 | -- | -- | -- |
| 62% to<br>below<br>65%,<br>Lumps | DOMESTIC<br>SALE | 5519  | NRVS STEELS<br>LIMITED               | 1994.480  | 14459980.00 | -- | -- | -- |
| 60% to<br>below<br>62%,<br>Fines | DOMESTIC<br>SALE | 19313 | JRS Ventures Pvt Ltd                 | 25565.810 | 66303295.25 | -- | -- | -- |
| 60% to<br>below<br>62%,<br>Fines | DOMESTIC<br>SALE | 909   | S.M.NIRYAT<br>PRIVATE LIMITED        | 10987.150 | 23123438.00 | -- | -- | -- |
| 60% to<br>below<br>62%,<br>Fines | DOMESTIC<br>SALE | 1165  | K A I<br>INTERNATIONAL<br>PRIVATE. L | 11617.340 | 19761221.50 | -- | -- | -- |
| 60% to<br>below<br>62%,<br>Fines | DOMESTIC<br>SALE | 330   | AUROGLOBAL<br>COMTRADE PVT.<br>LTD.  | 3989.500  | 21942250.00 | -- | -- | -- |
| 60% to<br>below<br>62%,<br>Fines | DOMESTIC<br>SALE | 42972 | Torque Minerals<br>Private Limite    | 996.920   | 5183984.00  | -- | -- | -- |
| 60% to<br>below<br>62%,<br>Fines | DOMESTIC<br>SALE | 4553  | San & Co                             | 2145.350  | 11638523.75 | -- | -- | -- |
| 62% to<br>below<br>65%,          | DOMESTIC<br>SALE | 4553  | San & Co                             | 15929.650 | 43452599.75 | -- | -- | -- |

with copy of invoices.

6. Give Reason for increase/decrease in production

Give reasons for increase/decrease in production compared to the previous year or nil production, if any, during the year

Production almost equal in comparison to previous year.

7. Give Reason for increase/decrease in grade wise ex-mine price

Give reasons for increase/decrease in grade wise ex-mine price, if any, during the year compared to the previous year.

Ex-mine price increased as per prevailing market rate.

Part - VII

COST OF PRODUCTION

|        | Item                               | Cost Per Tonne (in ) |
|--------|------------------------------------|----------------------|
| (i)    | Direct Cost                        | 541.31               |
|        | (a) Exploration                    | 0.00                 |
|        | (b) Mining                         | 541.31               |
|        | (c) Beneficiation(Mechanical Only) | 0.00                 |
| (ii)   | Over-head cost                     | 424.41               |
| (iii)  | Depreciation                       | 32.35                |
| (iv)   | Interest                           | 110.27               |
| (v)    | Royalty                            | 587.90               |
| (vi)   | Taxes                              | 3.27                 |
| (vii)  | Dead Rent                          | 0.00                 |
| (viii) | Others (specify) 0                 | 0.00                 |
|        | Total                              | 1699.51              |

| Mineral Name        | Production proposal for financial year<br>2020 - 2021 | Production reported during the financial year<br>2020 - 2021 | Difference |
|---------------------|-------------------------------------------------------|--------------------------------------------------------------|------------|
| IRON ORE - HEMATITE | 120000                                                | 117800                                                       | 2200       |

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Back

I Certify that the information furnished above is correct and complete in all respects.

Place :

Dist: SUNDARGARH, ORISSA

Pin:--

Date : 30-06-2021

Signature

Name :

Designation:

Owner / Agent / Mining Engineer / Manager

From: 117.218.9.206 at 2021-06-30 12:31:50

**Mines Manager**  
**Patabeda Iron Mines**  
**(14.000 Hects)**  
**of M/s. M. G. Mohanty**

## **ANNEXURE-T**

### **COPY OF ENVIRONMENTAL STATEMENT**

**Messrs M. G. Mohanty**  
Mine Owners

**Corporate Office:**  
5A, Forest Park  
Bhubaneswar-751009, INDIA  
Ph +91-674-2596400/2596410  
Fax : +91 674-2596390

**Mines Administrative Branch Office:**  
At/Po: Barbil, Dist: Keonjhar  
Odisha-758035, INDIA  
Ph +91-6767-275318, 276319  
E-mail: mgmohantyco@gmail.com

MGM/BO/202-22/05-41  
Date. 28.05.2021

To

The Member Secretary  
State pollution Control Board  
Paribesh Bhawan,a/118, Nilakanthanagar  
Unit-VIII,Bhubaneswar-751012, Odisha

**Sub.- Submission of Environmental Statement –Form V with respect to our Patabeda Iron Mines over an area of 14.00 ha in Sundargarh district of Odisha.**

Sir,

We are hereby enclosing the Environmental Statement –Form V for the year 2020-21 with respect to our Patabeda Iron Mines over an area of 14.00 ha in Sundargarh district of Odisha.

This is for your kind information.

Thanking you,

Yours Faithfully,

For, M/s. MG Mohanty

  
**Mines Manager**  
**Patabeda Iron Mines**  
**(14.000 Hects)**  
**of M/s. M. G. Mohanty**  
Encl.As above

# ANNEXURE

## ENVIRONMENTAL STATEMENT FORM-V (See rule 14)

Environmental Statement for the financial year ending with 31<sup>st</sup> March 2021

### PART-A

ii. Name and address of the owner/

Occupier of the industry operation or process: **R L Mohanty, Managing Partner**  
**M/s M. G. Mohanty, 5A, Forest Park,**  
**Bhubaneswar, Dist- Khurda**  
**Odisha-751009**

Operation or process.

iv. Industry category

Primary-(STC Code) Secondary- (STC Code): **: Opencast Mining**

v. Production category

**: 0.12 MTPA**

Year of establishment

**: 2006**

vi. Date of the last environmental statement submitted.

### PART- B

Water and Raw Material Consumption :

iii. Water consumption in m<sup>3</sup>/d

Process

**: 15 (Water Sprinkling within the mines & surrounding village road)**

Cooling :

Domestic :

| Name of Products                                                                                                                                                                                                | Process water consumption per unit of products |                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------------|
|                                                                                                                                                                                                                 | During the previous financial year (2019-20)   | During the current financial year (2020-21) |
| <i>This is an opencast iron ore mines producing calibrated ore &amp; fines. Water is required for dust suppression at screening plant, water sprinkling within the mines &amp; watering in plantation area.</i> |                                                |                                             |

iv. Raw material consumption

| Name of raw materials*                                                                                                    | Name of Products | Consumption of raw material per unit of output |                                             |
|---------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------|---------------------------------------------|
|                                                                                                                           |                  | During the previous financial year (2019-20)   | During the current financial year (2020-21) |
| This is an opencast iron ore mine, after mining the RoM ore is fed in to the Screening unit to produce sized ore & fines. |                  |                                                |                                             |

\*Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

#### PART-C

##### Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

| Pollutants | Quantity of Pollutants discharged (mass/day)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Concentration of Pollutants discharged (mass/volume) | Percentage of variation from prescribed standards with reasons. |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------|
| (c) Water  | <p><i>As the industry is being operated on dry process technology, no liquid effluent is generated from the screening process. Domestic wastewater generated from residential colony and office toilet is channelized in soak-pit.</i></p> <p><i>The concentration of the pollutants are within permissible standard as per the quarterly water quality data monitoring by SUPCO Govt. approved Analyst, (Copy attached)</i></p>                                                                                                         |                                                      |                                                                 |
| (d) Air    | <p><i>Since this is an open cast mine, the dust generation is mainly due to the movement of vehicles in the haul roads, drilling activities etc., which is fugitive in nature and cannot be quantified. The fugitive dust is minimised by sprinkling of water by mobile tanker and development of green barrier by plantation around the leasehold area.</i></p> <p><i>The ambient air quality are within permissible standard as per the quarterly air quality data monitoring by SUPCO Govt. approved Analyst, (Copy attached)</i></p> |                                                      |                                                                 |

#### PART-D

##### HAZARDOUS WASTES

(as specified under Hazardous Wastes (Management & Handling Rules, 1989).

| Solid Wastes                         | Total Quantity (Kg)                          |                                             |
|--------------------------------------|----------------------------------------------|---------------------------------------------|
|                                      | During the previous financial year (2019-20) | During the current financial year (2020-21) |
| f. From process<br>– used oil        | 0.711KL                                      | 0.326KL                                     |
| -Waste containing oil                | 0.065T                                       | 0.046T                                      |
| g. From pollution control facilities |                                              |                                             |

\*Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

### PART-C

#### Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

| Pollutants | Quantity of Pollutants discharged (mass/day)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Concentration of Pollutants discharged (mass/volume) | Percentage of variation from prescribed standards with reasons. |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------|
| (c) Water  | <p><i>As the industry is being operated on dry process technology, no liquid effluent is generated from the screening process. Domestic wastewater generated from residential colony and office toilet is channelized in soak-pit.</i></p> <p><i>The concentration of the pollutants are within permissible standard as per the quarterly water quality data monitoring by SUPCO Govt. approved Analyst, (Copy attached)</i></p>                                                                                                         |                                                      |                                                                 |
| (d) Air    | <p><i>Since this is an open cast mine, the dust generation is mainly due to the movement of vehicles in the haul roads, drilling activities etc., which is fugitive in nature and cannot be quantified. The fugitive dust is minimised by sprinkling of water by mobile tanker and development of green barrier by plantation around the leasehold area.</i></p> <p><i>The ambient air quality are within permissible standard as per the quarterly air quality data monitoring by SUPCO Govt. approved Analyst, (Copy attached)</i></p> |                                                      |                                                                 |

### PART-D

#### HAZARDOUS WASTES

(as specified under Hazardous Wastes (Management & Handling Rules, 1989).

| Solid Wastes                         | Total Quantity (Kg)                          |                                             |
|--------------------------------------|----------------------------------------------|---------------------------------------------|
|                                      | During the previous financial year (2019-20) | During the current financial year (2020-21) |
| f. From process<br>– used oil        | 0.711KL                                      | 0.326KL                                     |
| -Waste containing oil                | 0.065T                                       | 0.046T                                      |
| g. From pollution control facilities |                                              |                                             |

## PART-H

Additional measures/investment proposal for environmental protection including batement of pollution.

Garland drains and Retaining wall around the OB dumping and settling tank are constructed to check and channelize surface run-off as per necessity.

Plantation of natural specices has been carried out over the inactive waste dump terraces to arrest the airborne dust & nearby villages.

## PART-I

### MISCELLANEOUS:

Any other particulars in respect of environmental protection and abatement of pollution.

1. *Measures taken to control Air Pollution:-*
  - *Water sprinkling on the haul road.*
  - *Provision of dust masks to the workmen.*
2. *Measures taken to control water pollution.*  
*Construction of retaining wall and garland drain along the dump slope to prevent surface run-off during monsoon.*
3. *Measures taken to control Noise& Ground water Vibration;*  
*Thick plantation has been developed around the mines to provide a canopy cover.*  
*Implementation of advance blasting technique to reduce the blast induced ground vibration.*  
*Workmen are provided with ear-muff while working near heavy earth moving machineries.*
4. *Measures taken to control Land Degradation*  
*Afforestation around the non-active dump and settling tank for slope stabilization*

  
Mines Manager  
Patabeda Iron Mines  
(14.000 Hects)  
of M/s. M. G. Mohanty