

**POINTWISE COMPLIANCE TO THE NOC CONDITION TOWARDS THE NOC ISSUED BY THE CENTRAL GROUND WATER AUTHORITY OF INDIA VIDE LETTER NO.CGWA/NOC/MIN/REN/2/2022/7299 VALID FROM 11.12.2022 TO 10.12.2024 (APPLICATION No.: 21-4/1901/OR/MIN/2018) FOR PATABEDA IRON AND MANGANESE MINES (19.425 Ha.) OF M/S M.G. MOHANTY AT/PO: PATABEDA, PO: MALDA SUBDIVISION: BONAI, DISTRICT: SUNDERGARH, ODISHA STATE**

**Mandatory Conditions:**

- 1) Installation of digital water flow meter (conforming to BIS/ IS standards) having telemetry system in the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate.

**Digital Water Flow Meter with Telemetric System have been installed in the existing borewell. The installed flow meter user ID and Pass word has already been communicated. The proposed borewell is to be installed. At the time of installation Digital Flow Meter with Telemetry System shall be installed. The photograph of existing borewell is appended as Annexure-1. The 2<sup>nd</sup> borewell to be establish once the expansion of mining operation takes place.**

- 2) Proponents shall mandatorily get water flow meter calibrated from an authorized agency once in a year.

**The flow meter has been calibrated and copy of calibration certificate enclosed as Annexure-2.**

- 3) Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 14 of Guidelines . Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in Annexure-II of the guideline.

**Ground Water drawal permission is for 30 cum/day. As per the condition Manual Piezometer has been installed. The monthly ground water level data enclosed and Annexure-3 and the photograph of piezometer is enclosed as Annexure-4**

- 4) Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.

**Pre-monsoon water quality report of post monsoon Season of 2023 of borewell has been analysed and the Analysis data is enclosed as Annexure-5.**

*Dillip Kumar Pattanayak*

**(Authorised Signatory )**

- 5) In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.

**The Patabeda mine is a Opencast mining project not intersecting groundwater table. Not Applicable. However the Ground water Table of the Buffer Zone in different season is Enclosed as Annexure-6.**

- 6) In case of mining project the firm shall submit water quality report of mine discharge/ seepage from Govt. approved/ NABL accredited lab.

**Open cast Project with no dewatering. Not Applicable.**

- 7) The firm shall report compliance of the NOC conditions online in the website ([www.cgwa-noc.gov.in](http://www.cgwa-noc.gov.in)) within one year from the date of issue of this NOC.

**The compliance of NOC condition is being submitted online in the NOCAP portal.**

- 8) Industries abstracting ground water in excess of 100 m<sup>3</sup> /d shall undertake annual water audit through certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three years through appropriate means.

**Ground water abstraction for this project is 30 cum/day. Audit report Not Applicable for the project.**

- 9) Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment (Protection) Act, 1986.

**It is noted and the renewal application will be applied 90 days before expiry of the NOC**

- 10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of effluents or any such matter as applicable.

**Noted and will be followed.**

#### **General conditions:**

- 11) No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).

**No additional ground water abstraction structure will be constructed in the Project area without Permission of CGWA.**

*Dillip Kumar Pattaraya*

**(Authorised Signatory )**

- 12) The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).

**Necessary permission will be seek in due course from CGWA if the operation required to increase the quantum of ground water abstraction.**

- 13) Proponents shall install roof top rain water harvesting in the premise as per the existing building bye laws in the premise.

**Rooftop water harvesting facility in the colony has been installed. Photograph is enclosed As Annexure-7**

- 14) The project proponent shall take all necessary measures to prevent contamination of ground water in the premises failing which the firm shall be responsible for any consequences arising thereupon.

**It is a opencast mining project. Ground Water Contamination is not expected.**

- 15) In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.

**It is a opencast mining project. Not Applicable.**

- 16) Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.

**The recycled/treated water of ETP/STP to be used for plantation.**

- 17) Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.

**Not applicable. The NOC is for drawl of fresh water only.**

- 18) Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned Regional Director, Central Ground Water Board.

**Not applicable. It is a mining Project not intersecting ground water table. .**

- 19) In case of violation of any NOC conditions, the applicant shall be liable to pay the penalties as per Section 16 of Guidelines.

**Noted and Agreed.**

- 20) This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and administrative clearances from appropriate authorities.

**Noted. The mining operation is being carried out with all necessary statutory clearance.**

*Dillip Kumar Pattaraya*

**(Authorised Signatory )**

- 21) The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.

**Noted. The mining operation is being continued with all necessary clearance.**

- 22) In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.

**Noted, if any change of ownership arises will be intimated in due course.**

- 23) This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases related to ground water or any other related matters.

**Noted.**

- 24) Proponents, who have installed/constructed artificial recharge structures in compliance of the NOC granted to them previously and have availed rebate of upto 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, shall continue to regularly maintain artificial recharge structures.

**Artificial recharge structure has been installed in the colony. Photograph enclosed as Annexure-7.**

- 25) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, pharmaceutical, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution as per Annexure III of the guidelines.

**Not applicable this is a mining project.**

- 26) In case of new infrastructure projects having ground water abstraction of more than 20 m<sup>3</sup>/day, the firm/entity shall ensure implementation of dual water supply system in the projects.

**Not Applicable . It is a mining project.**

- 27) In case of infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.

**Not Applicable . It is a mining project.**

*Dillip Kumar Pattanayak*

**(Authorised Signatory )**

- 28) In case of coal and other base metal mining projects, the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.

**Not Applicable . It is a mining project not involving dewatering.**

- 29) The NOC issued is conditional subject to the conditions mentioned in the Public notice dated 27.01.2021 failing which penalty/EC/cancellation of NOC shall be imposed as the case may be.

**Noted.**

- 30) This NOC is issued subject to the clearance of Expert Appraisal Committee (EAC) (if applicable).

**This project is a Mining project. NOC is for drawal of 30 cum/day of Ground water. Clearance of EAC is not applicable for this project.**

*Dillip Kumar Pattanayak*

**(Authorised Signatory )**



Annexure - 1

Dillip &lt;dkpattanayak123@gmail.com&gt;

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**Installation of Digital Flow Meter with telemetry System in Borewell Patabeda Iron and Manganese Mines (19.425 ha.) of M/s M G Mohanty**

1 message

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**Dillip** <dkpattanayak123@gmail.com>

Mon, Nov 7, 2022 at 2:04 PM

To: rdser-cgwb@nic.in

To

**The Regional Director**

CGWB (SER)

Bhujan Bhawan, Khandagiri

Bhubaneswar-751030

Odisha

Sub: **Installation of Digital Flow Meter with telemetry System in Borewell Patabeda Iron and Manganese Mines (19.425 ha.) of M/s M G Mohanty**

Dear Sir,

With reference to our CGWA NOC. No.: CGWA/NOC/MIN/REN/1/2020/5770 and CGWA/NOC/MIN/REN/2/2022/7299, this is to inform you that we have installed the Digital Flow Meter with Telemetry System in our existing Bore Well on 23.12.2021 as per the NOC Condition.

The User ID, Password, & URL for the Digital Flow Meter with Telemetry System is mentioned below-

User ID: [mgmohantybo@gmail.com](mailto:mgmohantybo@gmail.com)

Pass Word: Patabeda19

URL: [www.iosense.io](http://www.iosense.io)

This is for your kind perusal and Record

With Regards

Yours Faithfully

For M/s M G Mohanty

D.K. Pattanayak, Geologist

Attachment: 1. CGWA NOC, 2. Geo-tagged Photo of Bore well fitted with Digital Flow Meter  
3. Calibration Certificate

**Dillip Kumar Pattanayak****9437325755,7440015245**

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**5 attachments**

**19.425 Flow meter.jpeg**  
222K



19.425 bore well.jpeg  
334K

 **19Ha Flowmeter Calibration.pdf**  
21K

 **20 CGWA APPROVAL 19.425HA.pdf**  
542K

 **22 CGWA NOC 19.425 Ha..pdf**  
541K

**Monthly water drawal data  
of Patabeda Iron & Mn Mines (19.425Ha)  
M/s M G Mohanty**

| Sl. No | Month        | Drawal<br>in KL |
|--------|--------------|-----------------|
| 1      | August'20    | 220.0KL         |
| 2      | September'20 | 211.9KL         |
| 3      | October'20   | 217.2KL         |
| 4      | November'20  | 209.7KL         |
| 5      | December'20  | 209.1KL         |
| 6      | January'21   | 201.9KL         |
| 7      | February'21  | 196.0KL         |
| 8      | March'21     | 208.3KL         |
| 9      | April'21     | 209.0KL         |
| 10     | May'21       | 210.0KL         |
| 11     | June'21      | 202.7KL         |
| 12     | July'21      | 217.1KL         |
| 13     | August'21    | 211.0KL         |
| 14     | September'21 | 210.1KL         |
| 15     | October'21   | 196.3KL         |
| 16     | November'21  | 180.3KL         |
| 17     | December'21  | 217.4KL         |
| 18     | January'22   | 203.1KL         |
| 19     | February'22  | 195.8KL         |
| 20     | March'22     | 210.0KL         |
| 21     | April'22     | 209.0KL         |
| 22     | May'22       | 211.0KL         |
| 23     | June'22      | 193.0KL         |
| 24     | July'22      | 213.9KL         |
| 25     | August'22    | 209.4KL         |
| 26     | September'22 | 209.3KL         |

  
**Mines Manager**  
**Patabeda Iron & Manganese**  
**Mines (19.425 Ha)**  
**of M/s. M. G. Mohanty**

|    |              |         |
|----|--------------|---------|
| 27 | October'22   | 202.6KL |
| 28 | November'22  | 209.6KL |
| 29 | December'22  | 216.4KL |
| 30 | January'23   | 201.9KL |
| 31 | February'23  | 196.0KL |
| 32 | March'23     | 214.9KL |
| 33 | April'23     | 209.8KL |
| 34 | May'23       | 209.8KL |
| 35 | June'23      | 202.1KL |
| 36 | July'23      | 216.2KL |
| 37 | August'23    | 209KL   |
| 38 | September'23 | 209.9KL |

  
 Mines Manager  
 Patabeda Iron & Manganese  
 Mines (19.425 Ha)  
 of M/s. M. G. Mohanty



24 Nov 2023 12:45:55  
331° NW  
Altitude: 520.0m  
Speed: 0.0km/h  
Index number: 50



Annexure -2

No. : LHN22D0577

Date: 22-Dec-2022

GOVERNMENT OF ODISHA

**CERTIFICATE OF VERIFICATION**

(See Rule 16 (3) Schedule – VIII of the Odisha Legal Metrology (Enforcement) Rules, 2011 )

Office of the Legal Metrology Officer **LAHUNIPARA**, Camp/Place **Patabeda**

Name of Legal Metrology Officer **Sri. Jyoti Ranjan Behera** No. **OR-361**

I here by certify that I have this day verified and **STAMPED** the under mentioned weights, measures, etc., belonging to **M/s M G Mohanty (M G Mohanty)** Locality **At-Patabeda**, Po **Malda**, Dist **Sundargarh**, Name of the trade **Mining**

| Quantity | Denomination                                                                                                                                                                                                                      | Weighing instruments | Measuring instruments | Verification fees | Carriage, Conveyance, |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------|-------------------|-----------------------|
| 1        | Flow meter with totalizer, Capacity (Max) : 750 liter/min Patabeda Iron & Mn Mines 19.425Ha Ground Water , Make : UPC , Model No. : UPCS<br>MAG 110 , SL No. : 2010401046<br>Addl Fee R17(2) : Rs.0.00, Addl Fee R17(3) : Rs.0.00 |                      |                       | 5500.00           | 500.00                |

[ In the case of rejected weights, measures, etc. the Legal Metrology Officer shall give separate Certificate of rejection mentioning the reasons of rejection against each item ]

Total Rs. **6000.00** deposited vide T. Receipt / Money Receipt No. **337C5DD428** dated **2022-11-29**

Repaired by / Used by **M G Mohanty** (Signature)

NEXT VERIFICATION DUE ON **22-Dec-2023**

Signature Not Verified

Digitally signed by **JYOTI RANJAN BEHERA**

Date: 2022.12.22 18:27:53 IST

Legal Metrology Officer , LAHUNIPARA

Note:1.The Certificate is to be exhibited in a conspicuous place in the related premises as per Rule 24

2.If the weight or measure is repaired or reinstalled, these shall not be put into use unless it has been duly re-verified and stamped, notwithstanding that periodical re-verification of such weight or measure has not become due as per Rule 20.

**Monthly Piezo Meter Reading data of Patabeda Iron & Mn Mines (19.425Ha), M/s M G Mohanty**

| Sl. No | Month        | Ground water level in BGLm/<br>(Surface level & water Table<br>in AMSL) |
|--------|--------------|-------------------------------------------------------------------------|
| 1      | August'20    | 77.14m                                                                  |
| 2      | September'20 | 64.22m                                                                  |
| 3      | October'20   | 74.13m                                                                  |
| 4      | November'20  | 80.29m                                                                  |
| 5      | December'20  | 82.58m                                                                  |
| 6      | January'21   | 83.79m                                                                  |
| 7      | February'21  | 84.27m                                                                  |
| 8      | March'21     | 85.51m                                                                  |
| 9      | April'21     | 85.81m                                                                  |
| 10     | May'21       | 84.79m                                                                  |
| 11     | June'21      | 84.23m                                                                  |
| 12     | July'21      | 81.89m                                                                  |
| 13     | August'21    | 85.22m                                                                  |
| 14     | September'21 | 83.39m                                                                  |
| 15     | October'21   | 84.92m                                                                  |
| 16     | November'21  | 85.94m                                                                  |
| 17     | December'21  | 86.81m                                                                  |
| 18     | January'22   | 87.32m                                                                  |
| 19     | February'22  | 89.16m                                                                  |
| 20     | March'22     | 87.94m                                                                  |
| 21     | April'22     | 88.50m                                                                  |
| 22     | May'22       | 88.76m                                                                  |
| 23     | June'22      | 87.10m                                                                  |
| 24     | July'22      | 83.51m                                                                  |
| 25     | August'22    | 86.27m                                                                  |
| 26     | September'22 | 83.41m                                                                  |

  
**Mines Manager**  
**Patabeda Iron & Manganese**  
**Mines (19.425 Ha)**  
**M. G. Mohanty**

|    |              |        |
|----|--------------|--------|
| 27 | October'22   | 84.73m |
| 28 | November'22  | 86.58m |
| 29 | December'22  | 91.49m |
| 30 | January'23   | 91.68m |
| 31 | February'23  | 92.76m |
| 32 | March'23     | 89.09m |
| 33 | April'23     | 88.66m |
| 34 | May'23       | 89.32m |
| 35 | June'23      | 88.39m |
| 36 | July'23      | 79.75m |
| 37 | August'23    | 76.87m |
| 38 | September'23 | 72.12m |

  
 Mines Manager  
 Patabeda Iron & Manganese  
 Mines (19.425 Ha)  
 of M/s. M. G. Mohanty



PHOTOGRAPH OF PIEZOMETER WELL



TC-8066

ULR-TC806623000000450F

|                               |                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Report No. N-1326             | Date: 12.04.2023                                                                                                                           |
| Name and Address of Customer: | M/s. M.G. MOHANTY<br><b>Patabeda Iron &amp; Manganese Mines (19.425 Ha)</b><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:        | 23.03.2023                                                                                                                                 |
| Sub:                          | Water monitoring                                                                                                                           |
| Material:                     | Drinking Water.                                                                                                                            |
| Group:                        | Water                                                                                                                                      |

**CHEMICAL REPORT**

Date of starting of Test 24.03.2023

Date of completion of Test: 08.04.2023

| Sl. No. | Specific Test Performed                                   | Test Method                              | Permissible limit<br>IS:10500/2<br>012<br>( max) | Test Result                                                        |                                                                                   |
|---------|-----------------------------------------------------------|------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|         |                                                           |                                          |                                                  | DW1<br>Mines<br>canteen<br><br>Date of<br>Collection<br>12.03.2023 | DW2<br>Patabeda<br>vill (Bore<br>Well)<br><br>Date of<br>Collection<br>12.03.2023 |
| 1       | pH                                                        | IS :3025,P-11, R.A 2009                  | 6.5 – 8.5                                        | 6.1                                                                | 6.3                                                                               |
| 2       | Colour(Hazen unit)                                        | APHA, 23rd Edn, 2120 B                   | 15                                               | <1.0                                                               | <1.0                                                                              |
| 3       | Total Hardness as CaCO <sub>3</sub> ,mg/l                 | IS 3025 (P-21), R.A. 2006                | 600                                              | 8                                                                  | 28                                                                                |
| 4       | Alkalinity as CaCO <sub>3</sub> ,mg/l                     | IS 3025 (P-23), R.A. 2014                | 600                                              | 12                                                                 | 32                                                                                |
| 5       | Chlorides as Cl <sup>-</sup> , mg/l                       | IS 3025, P-32                            | 1000                                             | 4                                                                  | 4                                                                                 |
| 6       | Calcium as Ca, mg/l                                       | APHA 23rd Edn 3500 Ca B                  | 200                                              | 3                                                                  | 9.6                                                                               |
| 7       | Magnesium as Mg, mg/l                                     | APHA 23rd Edn 3500 Mg B                  | 100                                              | 0.243                                                              | 0.972                                                                             |
| 8       | Residual Free Chlorine, mg/l                              | IS 3025, P-34                            | 1.0                                              | <1.0                                                               | <1.0                                                                              |
| 9       | Sulphate as SO <sub>4</sub> ,mg/l                         | APHA, 23rd Edn, 4500 SO <sub>4</sub> E   | 400                                              | <1.0                                                               | 4.0                                                                               |
| 10      | Nitrate as NO <sub>3</sub> , mg/l                         | APHA, 23rd Edn, 4500 NO <sub>3</sub> - B | 45                                               | 0.09                                                               | 1.6                                                                               |
| 11      | Iron as Fe,mg/l                                           | APHA, 23rd Edn, 3111 B                   | 0.3                                              | 0.592                                                              | 0.555                                                                             |
| 12      | Copper as Cu,mg/l                                         | APHA, 23rd Edn, 3111 B & C               | 1.5                                              | <0.04                                                              | <0.04                                                                             |
| 13      | Manganese as Mn,mg/l                                      | APHA, 23rd Edn, 3111 B                   | 0.3                                              | 0.226                                                              | 0.211                                                                             |
| 14      | Phenolic Compounds C <sub>6</sub> H <sub>5</sub> OH, mg/l | APHA, 23rd Edn, 5530 D                   | 0.002                                            | <0.002                                                             | <0.002                                                                            |
| 15      | Zinc as Zn, mg/l                                          | APHA, 23rd Edn, 3111 B & C               | 15.0                                             | <0.01                                                              | <0.01                                                                             |
| 16      | Cadmium as Cd, mg/l                                       | APHA, 23rd Edn, 3111 B & C               | 0.003                                            | <0.003                                                             | <0.003                                                                            |
| 17      | Arsenic as As, mg/l                                       | APHA, 23rd Edn, 3120 B                   | 0.05                                             | <0.01                                                              | <0.01                                                                             |
| 18      | Cyanide as CN, mg/l                                       | APHA, 23rd Edn, 4500 E                   | 0.05                                             | <0.05                                                              | <0.05                                                                             |
| 19      | Lead as pb                                                | --                                       | -                                                | <0.01                                                              | <0.01                                                                             |
| 20      | Fluoride as F, mg/l                                       | APHA, 23rd Edn, 4500 F – D               | 1.5                                              | <0.1                                                               | 0.164                                                                             |
| 21      | Total Dissolved solids (mg/l)                             | IS :3025, P-16, RA-2012                  | 2000                                             | 13                                                                 | 44                                                                                |
| 22      | Aluminium as Al mg/l                                      | APHA 23rd Edn 3500 Al-B                  | 0.2                                              | <0.2                                                               | <0.2                                                                              |
| 23      | Boron as B mg/l                                           | APHA 23rd Edn 4500 B-B                   | 1.0                                              | <1.0                                                               | <1.0                                                                              |
| 24      | Mercury as Hg, mg/l                                       | IS 3025, P-48, Mercury Analyser          | 0.001                                            | <0.001                                                             | <0.001                                                                            |
| 25      | Turbidity (NTU)                                           | IS 3025 (P-10), R.A. 2006                | 5                                                | <1.0                                                               | <1.0                                                                              |
| 26      | Total Chromium as Cr <sup>+6</sup> , mg/l                 | APHA, 23rd Edn, 3500 B                   | 0.05                                             | <0.05                                                              | <0.05                                                                             |

Tested by

Authorised Signatory

*A. Chatterjee*  
A. CHATTERJEE

*P. Datta*

P. DUTTA (Technical Manager)

- Note : 1) This report refers to the values obtained at the time of testing and results relate to the items tested.  
2) This Report shall not be reproduced in part or full without written permission of the management.  
3) Liability for return of samples ceases after 15 days from the date of test report.



# 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



(An ISO 9001 : 2015 Certified)

## TEST REPORT

|                               |                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Report No. N-1326             | Date: 12.04.2023                                                                                                                 |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron & Manganese Mines (19.425 Ha)<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:        | 23.03.2023                                                                                                                       |
| Sub:                          | Water monitoring                                                                                                                 |
| Material:                     | Drinking Water.                                                                                                                  |
| Group:                        | Water                                                                                                                            |

Date of starting of Test 24.03.2023

### CHEMICAL REPORT

Date of completion of Test: 08.04.2023

| Sl. No. | Specific Test Performed | Test Method               | Permissible limit<br>IS:10500/<br>2012<br>( max)) | Test Result                         |                                     |
|---------|-------------------------|---------------------------|---------------------------------------------------|-------------------------------------|-------------------------------------|
|         |                         |                           |                                                   | DW1<br>Mines Canteen                | DW2<br>Patabeda vill<br>(Bore Well) |
|         |                         |                           |                                                   | Date of<br>Collection<br>12.03.2023 | Date of<br>Collection<br>12.03.2023 |
| 27      | Temperature °C          | APHA, 23rd Edn, 2550 B    | -                                                 | 17 °C                               | 17 °C                               |
| 28      | Mineral oil ,mg/l       | IS :3025,P-39, R.A 2009   | 0.5                                               | <0.5                                | <0.5                                |
| 29      | Odour                   | IS 3025 (P-06), R.A. 1983 | Agreeable                                         | Agreeable                           | Agreeable                           |
| 30      | Taste                   | IS 3025 (P-07), R.A. 1984 | Agreeable                                         | Agreeable                           | Agreeable                           |

Tested by:

A. CHATTERJEE

Authorised Signatory

P. Dutta (Technical Manager)

- Note : 1) This report refers to the values obtained at the time of testing and results relate to the items tested.  
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3) Liability for return of samples ceases after 15 days from the date of test report.



# SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

## LABORATORY :

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(An ISO 9001 : 2015 Certified)

## TEST REPORT

|                               |                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Report No. N- 1326            | Date: 12.04.2023                                                                                                                 |
| Name and Address of Customer: | M/s. M.G. MOHANTY.<br>Patabeda Iron & Manganese Mines (19.425 Ha)<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:        | 23.03.2023                                                                                                                       |
| Sub:                          | Water monitoring                                                                                                                 |
| Material:                     | Drinking Water.                                                                                                                  |

### TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test: 23.03.2023

Date of completion of Test: 10.04.2023

| Sl. No. | Specific Test Performed     | Test Method        | Permissible Limits as per 10500:2012 | Test Result                      |                                     |
|---------|-----------------------------|--------------------|--------------------------------------|----------------------------------|-------------------------------------|
|         |                             |                    |                                      | DW1<br>Mines canteen             | DW2<br>Patabeda vill<br>(Bore Well) |
|         |                             |                    |                                      | Date of Collection<br>12.03.2023 | Date of Collection<br>12.03.2023    |
| 1       | Coliform Organism / 100 ml. | As per IS: 1622-81 | Absent/100 ml                        | Not found / 100ml                | Not found / 100ml                   |
| 2       | E. Coli / 100ml.            |                    | Absent/100 ml                        | Not found / 100ml                | Not found / 100ml                   |

Tested by:

R Dasgupta

H. Roy

Authorised Signatory

P. Dutta (Technical Manager)

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## Annexure-6

WATER TABLE VARIATION DATA OF THE BUFFER ZONE OF PATABEDA IRON AND MANGANESE MINES OVER 19.425 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°55.64 | 85°22.02  | 4.18                                 | 3.50   | 1.55      | 3.40   |
| Patabeda<br>(OpenWell)      | 21°55.76 | 85°21.98  | 2.96                                 | 3.15   | 1.30      | 2.65   |
| Ganua<br>(Open Well)        | 21°55.31 | 85°23.17  | 5.88                                 | 1.75   | 1.70      | 2.80   |
| Khandabandha<br>(Open well) | 21°55.64 | 85°23.97  | 3.36                                 | 2.58   | 1.25      | 1.65   |

| Location/village            | Location |           | Dug/Bore Well water level in bgl (m) |        |           |        |
|-----------------------------|----------|-----------|--------------------------------------|--------|-----------|--------|
|                             | Latitude | Longitude | Jan 2022                             | May 22 | August 22 | Nov 22 |
| Ganua<br>(Open Well)        | 21°55.64 | 85°22.02  | 2.66                                 | 4.30   | 1.25      | 1.80   |
| Patabeda<br>(OpenWell)      | 21°55.76 | 85°21.98  | 2.40                                 | 3.60   | 1.80      | 2.07   |
| Ganua<br>(Open Well)        | 21°55.31 | 85°23.17  | 2.57                                 | 4.90   | 1.95      | 3.07   |
| Khandabandha<br>(Open well) | 21°55.64 | 85°23.97  | 2.45                                 | 3.10   | 1.60      | 1.84   |

| Location/village            | Location |           | Dug/Bore Well water level in bgl (m) |        |           |
|-----------------------------|----------|-----------|--------------------------------------|--------|-----------|
|                             | Latitude | Longitude | Jan 2023                             | May 23 | August 23 |
| Ganua<br>(Open Well)        | 21°55.64 | 85°22.02  | 4.25                                 | 4.80   | 1.10      |
| Patabeda<br>(OpenWell)      | 21°55.76 | 85°21.98  | 2.90                                 | 3.45   | 1.70      |
| Ganua<br>(Open Well)        | 21°55.31 | 85°23.17  | 3.08                                 | 4.15   | 1.85      |
| Khandabandha<br>(Open well) | 21°55.64 | 85°23.97  | 2.60                                 | 2.95   | 1.55      |

  
 Mines Manager  
 Patabeda Iron & Manganese  
 Mines (19 425 Ha)  
 of M/S. M.G. MOHANTY



PHOTOGRAPH OF ROOFTOP WATER HARVESTING PIPELINE



PGOTOGRAPH OF ROOF TOP WATER HARVESTING WELL