

# ENVIRONMENTAL MONITORING REPORT

|                  |                                                                      |
|------------------|----------------------------------------------------------------------|
| Project          | <b>REDI IRON ORE MINE</b>                                            |
| Location         | Redi Village<br>Vengurla Taluka, Sindhudurg Dist<br>Maharashtra      |
| Client           | MINERALS AND METALS                                                  |
| Office Address   | P. O. Redi, Tal Vengurla, Sindhudurga<br>416517, Maharashtra (India) |
| Monitoring Month | <b>September -2025</b>                                               |

**ENVIRONMENTAL LABORATORY**  
**(Unit of Mineral Engineering Services LLP)**  
(Accredited by NABL & MoEF&CC Under E(P) Act 1986)  
#948, 2<sup>nd</sup> Cross, Kammanahalli Main Road,  
St Thomas Town Post,  
Bangalore- 560 084, Karnataka

### **LIST OF TABLES**

| <b>SL.<br/>NO.</b> | <b>PARTICULARS</b>                                                    | <b>TABLE NO.</b>  |
|--------------------|-----------------------------------------------------------------------|-------------------|
| <b>1</b>           | Test Report of Ambient Air Quality                                    | <b>1 to 5</b>     |
| <b>2</b>           | Test Report of Ambient Air Quality<br>(Transportation Route)          | <b>6 &amp; 7</b>  |
| <b>3</b>           | Statistical Air Quality Data                                          | <b>8</b>          |
| <b>4</b>           | Water Test Report As per Environmental (P) Rules, 1986<br>Schedule VI | <b>9 &amp; 10</b> |
| <b>5</b>           | Surface Water Test Report As per IS 2296                              | <b>11</b>         |
| <b>6</b>           | STP Water Test Report As per                                          | <b>12</b>         |



# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 1

### AMBIENT AIR QUALITY

Name of the Client : M/s. Minerals and Metals  
Name of the Project : Redi Iron Ore Mine  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A1 - Core zone Within ML Area  
Duration : 24 Hrs  
Issue Date : 03.10.2025  
Sampling & Test Method : IS 5182 & Lab SOP

| Date of Sampling                                                 | Report No  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) | Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------------|------------|-------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------------------------|
| 05.09.2025                                                       | N018725091 | 5                                                     | 9                                                      | 40                                      | 26                                       | <20                                           | <1                                                          |
| 06.09.2025                                                       | N005425092 | 9                                                     | 13                                                     | 28                                      | 19                                       | <20                                           | <1                                                          |
| 12.09.2025                                                       | N005725093 | 7                                                     | 9                                                      | 30                                      | 18                                       | <20                                           | <1                                                          |
| 13.09.2025                                                       | N011225093 | 9                                                     | 11                                                     | 40                                      | 20                                       | <20                                           | <1                                                          |
| 15.09.2025                                                       | N015925093 | 11                                                    | 12                                                     | 35                                      | 20                                       | <20                                           | <1                                                          |
| 16.09.2025                                                       | N021325093 | 7                                                     | 9                                                      | 38                                      | 23                                       | <20                                           | <1                                                          |
| 22.09.2025                                                       | N015125094 | 5                                                     | 9                                                      | 46                                      | 23                                       | <20                                           | <1                                                          |
| 23.09.2025                                                       | N020125094 | 11                                                    | 10                                                     | 35                                      | 18                                       | <20                                           | <1                                                          |
| NAAQS Limits for Industrial , Residential, Rural and other Areas |            | 80<br>24 Hrs                                          | 80<br>24 Hrs                                           | 100<br>24 Hrs                           | 60<br>24 Hrs                             | 400<br>24 Hrs                                 | 5<br>Annual                                                 |

| Date of Sampling                                                 | Report No  | Lead (Pb), µg/m <sup>3</sup> | Nickel (Ni), ng/m <sup>3</sup> | Arsenic (As), ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP), ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------------|------------|------------------------------|--------------------------------|---------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|
| 05.09.2025                                                       | N018725091 | 0.19                         | <0.1                           | <0.5                            | <0.5                                     | 0.20                                     | 20                                          |
| 06.09.2025                                                       | N005425092 | 0.12                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 21                                          |
| 12.09.2025                                                       | N005725093 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.24                                     | 25                                          |
| 13.09.2025                                                       | N011225093 | 0.13                         | <0.1                           | <0.5                            | <0.5                                     | 0.26                                     | 24                                          |
| 15.09.2025                                                       | N015925093 | 0.15                         | <0.1                           | <0.5                            | <0.5                                     | 0.27                                     | 27                                          |
| 16.09.2025                                                       | N021325093 | 0.21                         | <0.1                           | <0.5                            | <0.5                                     | 0.31                                     | 22                                          |
| 22.09.2025                                                       | N015125094 | 0.17                         | <0.1                           | <0.5                            | <0.5                                     | 0.27                                     | 25                                          |
| 23.09.2025                                                       | N020125094 | 0.14                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 26                                          |
| NAAQS Limits for Industrial , Residential, Rural and other Areas |            | 1.0<br>24 Hrs                | 20<br>Annual                   | 6<br>Annual                     | 1<br>Annual                              | 4<br>1 Hr                                | 180<br>1 Hr                                 |

Note : \* Parameters monitored for period of 1 hr

*Arushi Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in

Note : This report is subject to the terms and conditions mentioned overleaf.



# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 2

### AMBIENT AIR QUALITY

| Name of the Client                                                  | : M/s. Minerals and Metals                                            |                                                          |                                                           |                                            |                                             |                                                  |                                                                |
|---------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|---------------------------------------------|--------------------------------------------------|----------------------------------------------------------------|
| Name of the Project                                                 | : Redi Iron Ore Mine                                                  |                                                          |                                                           |                                            |                                             |                                                  |                                                                |
| Sample Collected by                                                 | : Environmental Laboratory (Unit of Mineral Engineering Services LLP) |                                                          |                                                           |                                            |                                             |                                                  |                                                                |
| Code & Station                                                      | : A2 - Redi village (Within 200m from the ML Area)                    |                                                          |                                                           |                                            |                                             |                                                  |                                                                |
| Duration                                                            | : 24 Hrs                                                              |                                                          |                                                           |                                            |                                             |                                                  |                                                                |
| Issue Date                                                          | : 03.10.2025                                                          |                                                          |                                                           |                                            |                                             |                                                  |                                                                |
| Sampling & Test Method                                              | : IS 5182 & Lab SOP                                                   |                                                          |                                                           |                                            |                                             |                                                  |                                                                |
| Date of Sampling                                                    | Report No                                                             | Sulphur Dioxide<br>(SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide<br>(NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> ,<br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub> ,<br>(µg/m <sup>3</sup> ) | Ammonia<br>(NH <sub>3</sub> ), µg/m <sup>3</sup> | Benzene<br>(C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup> |
| 05.09.2025                                                          | N018125091                                                            | 9                                                        | 11                                                        | 47                                         | 20                                          | <20                                              | <1                                                             |
| 06.09.2025                                                          | N004825092                                                            | 6                                                        | 9                                                         | 54                                         | 27                                          | <20                                              | <1                                                             |
| 12.09.2025                                                          | N005125093                                                            | 9                                                        | 10                                                        | 36                                         | 18                                          | <20                                              | <1                                                             |
| 13.09.2025                                                          | N010625093                                                            | 7                                                        | 11                                                        | 46                                         | 27                                          | <20                                              | <1                                                             |
| 15.09.2025                                                          | N015325093                                                            | 5                                                        | 13                                                        | 48                                         | 29                                          | <20                                              | <1                                                             |
| 16.09.2025                                                          | N020725093                                                            | 8                                                        | 10                                                        | 52                                         | 30                                          | <20                                              | <1                                                             |
| 22.09.2025                                                          | N014525094                                                            | 6                                                        | 9                                                         | 39                                         | 18                                          | <20                                              | <1                                                             |
| 23.09.2025                                                          | N019525094                                                            | 9                                                        | 13                                                        | 50                                         | 27                                          | <20                                              | <1                                                             |
| NAAQS Limits for Industrial ,<br>Residential, Rural and other Areas |                                                                       | 80<br>24 Hrs                                             | 80<br>24 Hrs                                              | 100<br>24 Hrs                              | 60<br>24 Hrs                                | 400<br>24 Hrs                                    | 5<br>Annual                                                    |

| Date of Sampling                                                 | Report No  | Lead (Pb), µg/m <sup>3</sup> | Nickel (Ni), ng/m <sup>3</sup> | Arsenic (As), ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP), ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------------|------------|------------------------------|--------------------------------|---------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|
| 05.09.2025                                                       | N018125091 | 0.09                         | <0.1                           | <0.5                            | <0.5                                     | 0.29                                     | 23                                          |
| 06.09.2025                                                       | N004825092 | 0.10                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 21                                          |
| 12.09.2025                                                       | N005125093 | 0.12                         | <0.1                           | <0.5                            | <0.5                                     | 0.21                                     | 28                                          |
| 13.09.2025                                                       | N010625093 | 0.14                         | <0.1                           | <0.5                            | <0.5                                     | 0.24                                     | 24                                          |
| 15.09.2025                                                       | N015325093 | 0.15                         | <0.1                           | <0.5                            | <0.5                                     | 0.28                                     | 25                                          |
| 16.09.2025                                                       | N020725093 | 0.10                         | <0.1                           | <0.5                            | <0.5                                     | 0.23                                     | 29                                          |
| 22.09.2025                                                       | N014525094 | 0.13                         | <0.1                           | <0.5                            | <0.5                                     | 0.29                                     | 27                                          |
| 23.09.2025                                                       | N019525094 | 0.12                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 22                                          |
| NAAQS Limits for Industrial , Residential, Rural and other Areas |            | 1.0<br>24 Hrs                | 20<br>Annual                   | 6<br>Annual                     | 1<br>Annual                              | 4<br>1 Hr                                | 180<br>1 Hr                                 |

Note : \* Parameters monitored for period of 1 hr

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.3

### AMBIENT AIR QUALITY

Name of the Client : M/s. Minerals and Metals  
Name of the Project : Redi Iron Ore Mine  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A3 - Gaontala village  
Duration : 24 Hrs  
Issue Date : 03.10.2025  
Sampling & Test Method : IS 5182 & Lab SOP

| Date of Sampling                                                | Report No  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) | Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup> |
|-----------------------------------------------------------------|------------|-------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------------------------|
| 05.09.2025                                                      | N018325091 | 7                                                     | 11                                                     | 50                                      | 29                                       | <20                                           | <1                                                          |
| 06.09.2025                                                      | N005025092 | 10                                                    | 12                                                     | 45                                      | 22                                       | <20                                           | <1                                                          |
| 12.09.2025                                                      | N005325093 | 5                                                     | 9                                                      | 39                                      | 14                                       | <20                                           | <1                                                          |
| 13.09.2025                                                      | N010825093 | 8                                                     | 12                                                     | 43                                      | 26                                       | <20                                           | <1                                                          |
| 15.09.2025                                                      | N015525093 | 9                                                     | 10                                                     | 38                                      | 19                                       | <20                                           | <1                                                          |
| 16.09.2025                                                      | N020925093 | 11                                                    | 9                                                      | 37                                      | 20                                       | <20                                           | <1                                                          |
| 22.09.2025                                                      | N014725094 | 6                                                     | 9                                                      | 40                                      | 22                                       | <20                                           | <1                                                          |
| 23.09.2025                                                      | N019725094 | 7                                                     | 10                                                     | 42                                      | 24                                       | <20                                           | <1                                                          |
| NAAQS Limits for Industrial, Residential, Rural and other Areas |            | 80<br>24 Hrs                                          | 80<br>24 Hrs                                           | 100<br>24 Hrs                           | 60<br>24 Hrs                             | 400<br>24 Hrs                                 | 5<br>Annual                                                 |

| Date of Sampling                                                | Report No  | Lead (Pb), µg/m <sup>3</sup> | Nickel (Ni), ng/m <sup>3</sup> | Arsenic (As), ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP), ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup> |
|-----------------------------------------------------------------|------------|------------------------------|--------------------------------|---------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|
| 05.09.2025                                                      | N018325091 | 0.16                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 21                                          |
| 06.09.2025                                                      | N005025092 | 0.25                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 25                                          |
| 12.09.2025                                                      | N005325093 | 0.13                         | <0.1                           | <0.5                            | <0.5                                     | 0.28                                     | 23                                          |
| 13.09.2025                                                      | N010825093 | 0.21                         | <0.1                           | <0.5                            | <0.5                                     | 0.31                                     | 25                                          |
| 15.09.2025                                                      | N015525093 | 0.18                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 21                                          |
| 16.09.2025                                                      | N020925093 | 0.13                         | <0.1                           | <0.5                            | <0.5                                     | 0.26                                     | 20                                          |
| 22.09.2025                                                      | N014725094 | 0.21                         | <0.1                           | <0.5                            | <0.5                                     | 0.28                                     | 28                                          |
| 23.09.2025                                                      | N019725094 | 0.25                         | <0.1                           | <0.5                            | <0.5                                     | 0.35                                     | 22                                          |
| NAAQS Limits for Industrial, Residential, Rural and other Areas |            | 1.0<br>24 Hrs                | 20<br>Annual                   | 6<br>Annual                     | 1<br>Annual                              | 4<br>1 Hr                                | 180<br>1 Hr                                 |

Note : \* Parameters monitored for period of 1 hr

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in



# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 4

### AMBIENT AIR QUALITY

Name of the Client : M/s. Minerals and Metals

Name of the Project : Redi Iron Ore Mine

Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)

Code & Station : A4 - Kanyalwadi village

Duration : 24 Hrs

Issue Date : 03.10.2025

Sampling & Test Method : IS 5182 & Lab SOP

| Date of Sampling                                                | Report No  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) | Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup> |
|-----------------------------------------------------------------|------------|-------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------------------------|
| 05.09.2025                                                      | N018425091 | 5                                                     | 9                                                      | 35                                      | 19                                       | <20                                           | <1                                                          |
| 06.09.2025                                                      | N005125092 | 9                                                     | 12                                                     | 50                                      | 27                                       | <20                                           | <1                                                          |
| 12.09.2025                                                      | N005425093 | 5                                                     | 10                                                     | 36                                      | 20                                       | <20                                           | <1                                                          |
| 13.09.2025                                                      | N010925093 | 10                                                    | 12                                                     | 38                                      | 23                                       | <20                                           | <1                                                          |
| 15.09.2025                                                      | N015625093 | 9                                                     | 11                                                     | 45                                      | 27                                       | <20                                           | <1                                                          |
| 16.09.2025                                                      | N021025093 | 10                                                    | 13                                                     | 40                                      | 24                                       | <20                                           | <1                                                          |
| 22.09.2025                                                      | N014825094 | 7                                                     | 12                                                     | 34                                      | 16                                       | <20                                           | <1                                                          |
| 23.09.2025                                                      | N019825094 | 9                                                     | 11                                                     | 51                                      | 28                                       | <20                                           | <1                                                          |
| NAAQS Limits for Industrial, Residential, Rural and other Areas |            | 80<br>24 Hrs                                          | 80<br>24 Hrs                                           | 100<br>24 Hrs                           | 60<br>24 Hrs                             | 400<br>24 Hrs                                 | 5<br>Annual                                                 |

| Date of Sampling                                                | Report No  | Lead (Pb), µg/m <sup>3</sup> | Nickel (Ni), ng/m <sup>3</sup> | Arsenic (As), ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP), ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup> |
|-----------------------------------------------------------------|------------|------------------------------|--------------------------------|---------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|
| 05.09.2025                                                      | N018425091 | 0.13                         | <0.1                           | <0.5                            | <0.5                                     | 0.23                                     | 25                                          |
| 06.09.2025                                                      | N005125092 | 0.28                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 21                                          |
| 12.09.2025                                                      | N005425093 | 0.31                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 26                                          |
| 13.09.2025                                                      | N010925093 | 0.22                         | <0.1                           | <0.5                            | <0.5                                     | 0.32                                     | 28                                          |
| 15.09.2025                                                      | N015625093 | 0.25                         | <0.1                           | <0.5                            | <0.5                                     | 0.26                                     | 23                                          |
| 16.09.2025                                                      | N021025093 | 0.21                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 21                                          |
| 22.09.2025                                                      | N014825094 | 0.20                         | <0.1                           | <0.5                            | <0.5                                     | 0.32                                     | 25                                          |
| 23.09.2025                                                      | N019825094 | 0.19                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 23                                          |
| NAAQS Limits for Industrial, Residential, Rural and other Areas |            | 1.0<br>24 Hrs                | 20<br>Annual                   | 6<br>Annual                     | 1<br>Annual                              | 4<br>1 Hr                                | 180<br>1 Hr                                 |

Note : \* Parameters monitored for period of 1 hr

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

### AMBIENT AIR QUALITY

Table No. 5

Name of the Client : M/s. Minerals and Metals  
Name of the Project : Redi Iron Ore Mine  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A5 - Shiroda village  
Duration : 24 Hrs  
Issue Date : 03.10.2025  
Sampling & Test Method : IS 5182 & Lab SOP

| Date of Sampling                                                 | Report No  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) | Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------------|------------|-------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------------------------|
| 05.09.2025                                                       | N018225091 | 7                                                     | 11                                                     | 44                                      | 24                                       | <20                                           | <1                                                          |
| 06.09.2025                                                       | N004925092 | 7                                                     | 9                                                      | 40                                      | 22                                       | <20                                           | <1                                                          |
| 12.09.2025                                                       | N005225093 | 6                                                     | 9                                                      | 33                                      | 19                                       | <20                                           | <1                                                          |
| 13.09.2025                                                       | N010725093 | 9                                                     | 12                                                     | 41                                      | 26                                       | <20                                           | <1                                                          |
| 15.09.2025                                                       | N015425093 | 7                                                     | 10                                                     | 53                                      | 27                                       | <20                                           | <1                                                          |
| 16.09.2025                                                       | N020825093 | 8                                                     | 11                                                     | 45                                      | 28                                       | <20                                           | <1                                                          |
| 22.09.2025                                                       | N014625094 | 6                                                     | 9                                                      | 40                                      | 25                                       | <20                                           | <1                                                          |
| 23.09.2025                                                       | N019625094 | 9                                                     | 13                                                     | 38                                      | 22                                       | <20                                           | <1                                                          |
| NAAQS Limits for Industrial , Residential, Rural and other Areas |            | 80<br>24 Hrs                                          | 80<br>24 Hrs                                           | 100<br>24 Hrs                           | 60<br>24 Hrs                             | 400<br>24 Hrs                                 | 5<br>Annual                                                 |

| Date of Sampling                                                 | Report No  | Lead (Pb), µg/m <sup>3</sup> | Nickel (Ni), ng/m <sup>3</sup> | Arsenic (As), ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP), ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------------|------------|------------------------------|--------------------------------|---------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|
| 05.09.2025                                                       | N018225091 | 0.19                         | <0.1                           | <0.5                            | <0.5                                     | 0.31                                     | 20                                          |
| 06.09.2025                                                       | N004925092 | 0.12                         | <0.1                           | <0.5                            | <0.5                                     | 0.23                                     | 23                                          |
| 12.09.2025                                                       | N005225093 | 0.21                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 25                                          |
| 13.09.2025                                                       | N010725093 | 0.25                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 20                                          |
| 15.09.2025                                                       | N015425093 | 0.28                         | <0.1                           | <0.5                            | <0.5                                     | 0.20                                     | 28                                          |
| 16.09.2025                                                       | N020825093 | 0.13                         | <0.1                           | <0.5                            | <0.5                                     | 0.21                                     | 21                                          |
| 22.09.2025                                                       | N014625094 | 0.24                         | <0.1                           | <0.5                            | <0.5                                     | 0.27                                     | 26                                          |
| 23.09.2025                                                       | N019625094 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.36                                     | 20                                          |
| NAAQS Limits for Industrial , Residential, Rural and other Areas |            | 1.0<br>24 Hrs                | 20<br>Annual                   | 6<br>Annual                     | 1<br>Annual                              | 4<br>1 Hr                                | 180<br>1 Hr                                 |

Note : \* Parameters monitored for period of 1 hr

*Arushi Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in

Note : This report is subject to the terms and conditions mentioned overleaf.



# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 6

### AMBIENT AIR QUALITY

| Name of the Client : M/s. Minerals and Metals                                                |            |                                                          |                                                           |                                            |                                             |
|----------------------------------------------------------------------------------------------|------------|----------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|---------------------------------------------|
| Name of the Project : Redi Iron Ore Mine                                                     |            |                                                          |                                                           |                                            |                                             |
| Sample Collected by : Environmental Laboratory<br>(Unit of Mineral Engineering Services LLP) |            |                                                          |                                                           |                                            |                                             |
| Code & Station : A6 - Near NIMCO Gate - Tivrewadi, Redi village                              |            |                                                          |                                                           |                                            |                                             |
| Duration : 24 Hrs                                                                            |            |                                                          |                                                           |                                            |                                             |
| Issue Date : 03.10.2025                                                                      |            |                                                          |                                                           |                                            |                                             |
| Reference IS 5182 & Lab SOP                                                                  |            |                                                          |                                                           |                                            |                                             |
| Date of Sampling                                                                             | Report No  | Sulphur Dioxide<br>(SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide<br>(NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> ,<br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub> ,<br>(µg/m <sup>3</sup> ) |
| 05.09.2025                                                                                   | N018525091 | 7                                                        | 10                                                        | 40                                         | 22                                          |
| 06.09.2025                                                                                   | N005225092 | 10                                                       | 12                                                        | 44                                         | 24                                          |
| 12.09.2025                                                                                   | N005525093 | 7                                                        | 10                                                        | 37                                         | 21                                          |
| 13.09.2025                                                                                   | N011025093 | 4                                                        | 9                                                         | 46                                         | 27                                          |
| 15.09.2025                                                                                   | N015725093 | 6                                                        | <9                                                        | 54                                         | 29                                          |
| 16.09.2025                                                                                   | N021125093 | 7                                                        | 11                                                        | 34                                         | 17                                          |
| 22.09.2025                                                                                   | N014925094 | 9                                                        | 10                                                        | 39                                         | 21                                          |
| 23.09.2025                                                                                   | N019925094 | 10                                                       | 11                                                        | 35                                         | 15                                          |
| NAAQS Limits for Industrial ,                                                                |            | 80                                                       | 80                                                        | 100                                        | 60                                          |
| Residential, Rural and other Areas                                                           |            | 24 Hrs                                                   | 24 Hrs                                                    | 24 Hrs                                     | 24 Hrs                                      |

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in

Note : This report is subject to the terms and conditions mentioned overleaf.





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 7

### AMBIENT AIR QUALITY

| Name of the Client                 |            | : M/s. Minerals and Metals                                               |                                                           |                                            |                                             |
|------------------------------------|------------|--------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|---------------------------------------------|
| Name of the Project                |            | : Redi Iron Ore Mine                                                     |                                                           |                                            |                                             |
| Sample Collected by                |            | : Environmental Laboratory<br>(Unit of Mineral Engineering Services LLP) |                                                           |                                            |                                             |
| Code & Station                     |            | : A7 - Near Primary School - sakalbhatwadi Redi village                  |                                                           |                                            |                                             |
| Duration                           |            | : 24 Hrs                                                                 |                                                           |                                            |                                             |
| Issue Date                         |            | : 03.10.2025                                                             |                                                           |                                            |                                             |
| Reference IS 5182 & Lab SOP        |            |                                                                          |                                                           |                                            |                                             |
| Date of Sampling                   | Report No  | Sulphur Dioxide<br>(SO <sub>2</sub> ), µg/m <sup>3</sup>                 | Nitrogen Dioxide<br>(NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> ,<br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub> ,<br>(µg/m <sup>3</sup> ) |
| 05.09.2025                         | N018625091 | 7                                                                        | 9                                                         | 36                                         | 18                                          |
| 06.09.2025                         | N005325092 | 5                                                                        | 10                                                        | 35                                         | 17                                          |
| 12.09.2025                         | N005625093 | 4                                                                        | 9                                                         | 40                                         | 24                                          |
| 13.09.2025                         | N011125093 | 8                                                                        | 9                                                         | 41                                         | 22                                          |
| 15.09.2025                         | N015825093 | 4                                                                        | <9                                                        | 42                                         | 24                                          |
| 16.09.2025                         | N021225093 | 7                                                                        | 9                                                         | 50                                         | 27                                          |
| 22.09.2025                         | N015025094 | 5                                                                        | 12                                                        | 40                                         | 25                                          |
| 23.09.2025                         | N020025094 | 9                                                                        | 13                                                        | 43                                         | 22                                          |
| NAAQS Limits for Industrial ,      |            | 80                                                                       | 80                                                        | 100                                        | 60                                          |
| Residential, Rural and other Areas |            | 24 Hrs                                                                   | 24 Hrs                                                    | 24 Hrs                                     | 24 Hrs                                      |

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in

**Note :** This report is subject to the terms and conditions mentioned overleaf.



# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 8

### STATISTICAL AIR QUALITY DATA

Name of the Client : M/s. Minerals and Metals

Name of the Project : Redi Iron Ore Mine

Month : September, 2025

|            | A1 - Core zone Within ML Area |                 |                  |                   | A2 - Redi village (Within 200m from the ML Area) |                 |                  |                   | A3 - Gaontala village |                 |                  |                   |
|------------|-------------------------------|-----------------|------------------|-------------------|--------------------------------------------------|-----------------|------------------|-------------------|-----------------------|-----------------|------------------|-------------------|
|            | SO <sub>2</sub>               | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                                  | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>       | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Min.       | 5                             | 9               | 28               | 18                | 5                                                | 9               | 36               | 18                | 5                     | 9               | 37               | 14                |
| 10%        | 5                             | 9               | 29               | 18                | 6                                                | 9               | 38               | 18                | 6                     | 9               | 38               | 18                |
| 25%        | 7                             | 9               | 34               | 19                | 6                                                | 10              | 44               | 20                | 7                     | 9               | 39               | 20                |
| 50%        | 8                             | 10              | 37               | 20                | 8                                                | 11              | 48               | 27                | 8                     | 10              | 41               | 22                |
| 75%        | 10                            | 11              | 40               | 23                | 9                                                | 12              | 51               | 28                | 9                     | 11              | 44               | 25                |
| 98%        | 11                            | 13              | 45               | 26                | 9                                                | 13              | 54               | 30                | 11                    | 12              | 49               | 29                |
| Max.       | 11                            | 13              | 46               | 26                | 9                                                | 13              | 54               | 30                | 11                    | 12              | 50               | 29                |
| Avg.       | 8                             | 10              | 37               | 21                | 7                                                | 11              | 47               | 25                | 8                     | 10              | 42               | 22                |
| SD         | 2                             | 2               | 6                | 3                 | 2                                                | 2               | 6                | 5                 | 2                     | 1               | 4                | 5                 |
| No. of obs | 8                             |                 |                  |                   | 8                                                |                 |                  |                   | 8                     |                 |                  |                   |
|            | A4 - Kanyalwadi village       |                 |                  |                   | A5 - Shiroda village                             |                 |                  |                   |                       |                 |                  |                   |
|            | SO <sub>2</sub>               | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                                  | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |                       |                 |                  |                   |
| Min.       | 5                             | 9               | 34               | 16                | 6                                                | 9               | 33               | 19                |                       |                 |                  |                   |
| 10%        | 5                             | 10              | 35               | 18                | 6                                                | 9               | 37               | 21                |                       |                 |                  |                   |
| 25%        | 7                             | 11              | 36               | 20                | 7                                                | 9               | 40               | 22                |                       |                 |                  |                   |
| 50%        | 9                             | 12              | 39               | 24                | 7                                                | 11              | 41               | 25                |                       |                 |                  |                   |
| 75%        | 9                             | 12              | 46               | 27                | 8                                                | 11              | 44               | 26                |                       |                 |                  |                   |
| 98%        | 10                            | 13              | 51               | 28                | 9                                                | 13              | 52               | 28                |                       |                 |                  |                   |
| Max.       | 10                            | 13              | 51               | 28                | 9                                                | 13              | 53               | 28                |                       |                 |                  |                   |
| Avg.       | 8                             | 11              | 41               | 23                | 7                                                | 11              | 42               | 24                |                       |                 |                  |                   |
| SD         | 2                             | 1               | 7                | 4                 | 1                                                | 2               | 6                | 3                 |                       |                 |                  |                   |
| No. of obs | 8                             |                 |                  |                   | 8                                                |                 |                  |                   |                       |                 |                  |                   |

*Arshiya Housar*  
ARSHIYA HOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in

Note : This report is subject to the terms and conditions mentioned overleaf.



# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 9

|                           |                                                                       |
|---------------------------|-----------------------------------------------------------------------|
| Name of the Client        | : M/s. Minerals and Metals                                            |
| Name of the Project       | : Redi Iron Ore Mine                                                  |
| Location                  | : Redi village, Vengurla taluka, Sindhudurg dist, Maharashtra         |
| Sample Collected by       | : Environmental Laboratory (Unit of Mineral Engineering Services LLP) |
| Nature of Sample          | : Surface Water                                                       |
| Sample Location           | : W1 - Pit water                                                      |
| Date of sample collection | : 09.09.2025                                                          |
| Date of sample receipt    | : 10.09.2025                                                          |
| Report No                 | : M005025092                                                          |
| Issue Date                | : 03.10.2025                                                          |
| Ref                       | : Environmental (P) Rules, 1986 SCHEDULE VI                           |

| Sl. No. | Parameters                                                         | Results                 | Standards For Effluent Discharge of Environmental Pollutants | Method of Testing            |
|---------|--------------------------------------------------------------------|-------------------------|--------------------------------------------------------------|------------------------------|
| 1       | Colour (Hazen Units), & Odour                                      | 1                       | —                                                            | IS:3025 (part-4)             |
| 2       | Suspended Solids (mg/l), Max                                       | 12                      | 100                                                          | IS 3025 (P-17) 2022          |
| 3       | Particle size of suspended solids                                  | Pass through 850 micron | Shall Pass through 850 micron                                | APHA 23rd edition            |
| 4       | pH                                                                 | 5.56                    | 5.5 to 9.0                                                   | IS 3025 (P-11) 2022          |
| 5       | Temperature °C                                                     | 25                      | Shall not exceed 5°C above the receiving water temp          | IS 3025 (Part 9) 2023        |
| 6       | Oil & Grrase (mg/l), Max                                           | <4.0                    | 10                                                           | IS 3025 (P-39) 2021          |
| 7       | Total Residual Chlorine (mg/l), Max                                | <0.1                    | 1.0                                                          | IS 3025 (P-26) 2021          |
| 8       | Ammonical Nitrogen (mg/l), Max                                     | <0.1                    | 50                                                           | IS 3025 (P-34 Sec 1) 2023    |
| 9       | Total Kjeldahl Nitrogen (mg/l), Max                                | <0.1                    | 100                                                          | IS 3025 (P-34 Sec 1) 2023    |
| 10      | Free Ammonia as NH <sub>3</sub> (mg/l), Max                        | <0.01                   | 5.0                                                          | IS 3025 (P-34 Sec 1) 2023    |
| 11      | BOD [3 days at 27°C] (mg/l), Max                                   | <3.0                    | 30                                                           | IS 3025 (Part 44) 2023       |
| 12      | COD (mg/l), Max                                                    | 24                      | 250                                                          | IS 3025 (Part 58) 2023       |
| 13      | Arsenic as As (mg/l), Max                                          | <0.05                   | 0.2                                                          | APHA 24th Ed.Method No.3030K |
| 14      | Mercury as Hg (mg/l), Max                                          | <0.001                  | 0.01                                                         | APHA 24th Ed.Method No.3030K |
| 15      | Lead as Pb (mg/l), Max                                             | <0.05                   | 0.1                                                          | APHA 24th Ed.Method No.3030K |
| 16      | Cadmium as Cd (mg/l), Max                                          | <0.01                   | 2.0                                                          | APHA 24th Ed.Method No.3030K |
| 17      | Hexavalent Chromium as Cr <sup>+6</sup> (mg/l), Max                | <0.03                   | 0.1                                                          | IS 3025 (P-52) 2014          |
| 18      | Total Chromium as Cr(mg/l), Max                                    | <0.01                   | 2.0                                                          | APHA 24th Ed.Method No.3030K |
| 19      | Copper as Cu (mg/l), Max                                           | <0.05                   | 3.0                                                          | APHA 24th Ed.Method No.3030K |
| 20      | Zinc as Zn (mg/l), Max                                             | <0.05                   | 5.0                                                          | APHA 24th Ed.Method No.3030K |
| 21      | Selenium as Se (mg/l), Max                                         | <0.05                   | 0.05                                                         | APHA 24th Ed.Method No.3030K |
| 22      | Nickel as Ni (mg/l), Max                                           | <0.05                   | 3.0                                                          | APHA 24th Ed.Method No.3030K |
| 23      | Cyanide as CN (mg/l), Max                                          | <0.01                   | 0.2                                                          | IS 3025 (P-27) Sec 1 2021    |
| 24      | Fluoride as F (mg/l), Max                                          | 0.18                    | 2.0                                                          | APHA 24th Edition 4500F      |
| 25      | Dissolved Phosphates as PO <sub>4</sub> (mg/l), Max                | <0.1                    | 5.0                                                          | IS 3025 (P-31) Sec 1 2022    |
| 26      | Sulphide as S (mg/l), Max                                          | <0.01                   | 2.0                                                          | IS 3025 (P-29) 2022          |
| 27      | Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH (mg/l), Max | <0.001                  | 1.0                                                          | IS 3025 (P-43) Sec 1 2022    |
| 28      | Manganese as Mn (mg/l), Max                                        | <0.01                   | 2                                                            | APHA 24th Ed.Method No.3030K |
| 29      | Iron as Fe (mg/l), Max                                             | <0.05                   | 3                                                            | APHA 24th Ed.Method No.3030K |
| 30      | Vanadium as V (mg/l), Max                                          | <0.01                   | 0.2                                                          | APHA 24th Ed.Method No.3030K |
| 31      | Nitrate Nitrogen (mg/l), Max                                       | 2.2                     | 10                                                           | IS 3025 (P-34) 1988 Ed. 2018 |

""END OF REPORT""

ARSHIYA KOUSAR

Dy TM - Chemical

Govt Analyst/Authorised Signatory

Office &amp; Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 10

|                                 |                                                                    |                                                                       |                 |                                                                  |                              |
|---------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------|------------------------------------------------------------------|------------------------------|
| Name of the Client              |                                                                    | : M/s. Minerals and Metals                                            |                 |                                                                  |                              |
| Name of the Project             |                                                                    | : Redi Iron Ore Mine                                                  |                 |                                                                  |                              |
| Location                        |                                                                    | : Redi village, Vengurla taluka, Sindhudurg dist, Maharashtra State.  |                 |                                                                  |                              |
| Particulars of sample collected |                                                                    | : W2 - Pit Discharge water, W3 - Runoff water from dump               |                 |                                                                  |                              |
| Sample Collected by             |                                                                    | : Environmental Laboratory (Unit of Mineral Engineering Services LLP) |                 |                                                                  |                              |
| Date of sample collection       |                                                                    | : 09.09.2025                                                          |                 |                                                                  |                              |
| Date of sample receipt          |                                                                    | : 10.09.2025                                                          |                 |                                                                  |                              |
| Issue Date                      |                                                                    | : 03.10.2025                                                          |                 |                                                                  |                              |
| Ref                             |                                                                    | : Environmental (P) Rules, 1986 SCHEDULE VI                           |                 |                                                                  |                              |
| Report No                       |                                                                    | -                                                                     |                 |                                                                  |                              |
| Sample code                     |                                                                    | W2                                                                    |                 | W3                                                               |                              |
| Sl. No.                         | Parameters                                                         | Results                                                               |                 | Standards For Effluent Discharge of Environmental Pollutants     | Method of Testing            |
| 1                               | Colour (Hazen Units), & Odour                                      | No Discharge water                                                    | No Runoff water | --                                                               | IS:3025 (part-4)             |
| 2                               | Suspended Solids (mg/l), Max                                       |                                                                       |                 | 100                                                              | IS 3025 (P-17) 2022          |
| 3                               | Particle size of suspended solids                                  |                                                                       |                 | Shall Pass through 850 micron                                    | APHA 23rd edition            |
| 4                               | pH                                                                 |                                                                       |                 | 5.5 to 9.0                                                       | IS 3025 (P-11) 2022          |
| 5                               | Temperature ° C                                                    |                                                                       |                 | Shall not exceed 5 <sup>o</sup> C above the receiving water temp | IS 3025 (Part 9) 2023        |
| 6                               | Oil & Grase (mg/l), Max                                            |                                                                       |                 | 10                                                               | IS 3025 (P-39) 2021          |
| 7                               | Total Residual Chlorine (mg/l), Max                                |                                                                       |                 | 1.0                                                              | IS 3025 (P-26) 2021          |
| 8                               | Ammonical Nitrogen (mg/l), Max                                     |                                                                       |                 | 50                                                               | IS 3025 (P-34 Sec 1 ) 2023   |
| 9                               | Total Kjeldahl Nitrogen (mg/l), Max                                |                                                                       |                 | 100                                                              | IS 3025 (P-34 Sec 1 ) 2023   |
| 10                              | Free Ammonia as NH <sub>3</sub> (mg/l), Max                        |                                                                       |                 | 5.0                                                              | IS 3025 (P-34 Sec 1 ) 2023   |
| 11                              | BOD [3 days at 27 <sup>o</sup> C] (mg/l), Max                      |                                                                       |                 | 30                                                               | IS 3025 (Part 44) 2023       |
| 12                              | COD (mg/l), Max                                                    |                                                                       |                 | 250                                                              | IS 3025 (Part 56) 2023       |
| 13                              | Arsenic as As (mg/l), Max                                          |                                                                       |                 | 0.2                                                              | APHA 24th Ed.Method No.3030K |
| 14                              | Mercury as Hg (mg/l), Max                                          |                                                                       |                 | 0.01                                                             | APHA 24th Ed.Method No.3030K |
| 15                              | Lead as Pb (mg/l), Max                                             |                                                                       |                 | 0.1                                                              | APHA 24th Ed.Method No.3030K |
| 16                              | Cadmium as Cd (mg/l), Max                                          |                                                                       |                 | 2.0                                                              | APHA 24th Ed.Method No.3030K |
| 17                              | Hexavalent Chromium as Cr <sup>+6</sup> (mg/l), Max                |                                                                       |                 | 0.1                                                              | IS 3025 (P-52) 2014          |
| 18                              | Total Chromium as Cr(mg/l), Max                                    |                                                                       |                 | 2.0                                                              | APHA 24th Ed.Method No.3030K |
| 19                              | Copper as Cu (mg/l), Max                                           |                                                                       |                 | 3.0                                                              | APHA 24th Ed.Method No.3030K |
| 20                              | Zinc as Zn (mg/l), Max                                             |                                                                       |                 | 5.0                                                              | APHA 24th Ed.Method No.3030K |
| 21                              | Selenium as Se (mg/l), Max                                         |                                                                       |                 | 0.05                                                             | APHA 24th Ed.Method No.3030K |
| 22                              | Nickel as Ni (mg/l), Max                                           |                                                                       |                 | 3.0                                                              | APHA 24th Ed.Method No.3030K |
| 23                              | Cyanide as CN (mg/l), Max                                          |                                                                       |                 | 0.2                                                              | IS 3025 (P-27) Sec 1 2021    |
| 24                              | Fluoride as F (mg/l), Max                                          |                                                                       |                 | 2.0                                                              | APHA 24th Edition 4500F      |
| 25                              | Dissolved Phosphates as PO <sub>4</sub> (mg/l), Max                |                                                                       |                 | 5.0                                                              | IS 3025 (P-31) Sec 1 2022    |
| 26                              | Sulphide as S (mg/l), Max                                          |                                                                       |                 | 2.0                                                              | IS 3025 (P-29) 2022          |
| 27                              | Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH (mg/l), Max |                                                                       |                 | 1.0                                                              | IS 3025 (P-43) Sec 1 2022    |
| 28                              | Manganese as Mn (mg/l), Max                                        |                                                                       |                 | 2                                                                | APHA 24th Ed Method No.3030K |
| 29                              | Iron as Fe (mg/l), Max                                             |                                                                       |                 | 3                                                                | APHA 24th Ed.Method No.3030K |
| 30                              | Vanadium as V (mg/l), Max                                          |                                                                       |                 | 0.2                                                              | APHA 24th Ed.Method No.3030K |
| 31                              | Nitrate Nitrogen (mg/l), Max                                       |                                                                       |                 | 10                                                               | IS 3025 (P-34) 1988 RA 2019  |

""END OF REPORT""

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in

Note : This report is subject to the terms and conditions mentioned overleaf.



# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 11

Name of the Client : M/s. Minerals and Metals  
Name of the Project : Redi Iron Ore Mine  
Location : Redi village, Vengurla taluka, Sindhudurg dist, Maharashtra State.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Nature of Sample : Surface Water  
Sample Location : SW1 - Kanyal tank water, SW2 - Nallah water Near Kanyalwadi  
SW3- Near Hanuman temple Kanyalwadi village  
Date of sample collection : 09.09.2025  
Date of sample receipt : 10.09.2025  
Issue Date : 03.10.2025  
Ref : IS : 2296 Water Quality Standards

| Sl. No. | Report No                                                     | M005225092 | M005325092 | M005425092 | Limits     | Method of Testing               |
|---------|---------------------------------------------------------------|------------|------------|------------|------------|---------------------------------|
|         | Sample Code                                                   | SW1        | SW2        | SW3        |            |                                 |
|         | Parameters                                                    | Results    |            |            |            |                                 |
| 1       | Colour (Hazen Units)                                          | 1          | 1          | <1         | 300        | IS 3025 (Part 4) 2021           |
| 2       | pH                                                            | 6.70       | 6.71       | 6.56       | 6.5 to 8.5 | IS 3025 (Part 11) 2022          |
| 3       | Dissolved Oxygen (as O <sub>2</sub> ), mg/l                   | 5.80       | 5.70       | 5.80       | Min 4      | IS 3025 (Part 38):1989 RA 2019  |
| 4       | Biochemical Oxygen Demand (as O <sub>2</sub> ), mg/l          | <3         | <3         | <3         | Max 3      | IS 3025 (Part 44) 2023          |
| 5       | Total Coliform (MPN/100ml)                                    | 95         | 78         | 103        | 5000       | IS 15165 2016 RA 2021           |
| 6       | Total Dissolved Solids, (mg/l)                                | 120        | 184        | 102        | 1500       | IS 3025 (Part 16) 2023          |
| 7       | Chloride (as Cl),mg/l                                         | 47.0       | 54.0       | 21.0       | 600        | IS 3025 (Part 32) :1988 RA 2019 |
| 8       | Sulphates as SO <sub>4</sub> (mg/l)                           | 24.0       | 28.0       | 16.0       | 400        | APHA (24th Edition ):4110B      |
| 9       | Nitrates (as NO <sub>3</sub> ),mg/l                           | 1.80       | 3.50       | 2.00       | 50         | IS 3025 (Part 34-Sec1) 2023     |
| 10      | Fluoride (as F),mg/l                                          | <0.1       | <0.1       | <0.1       | 1.5        | IS 3025 (Part 60-Sec1) 2023     |
| 11      | Copper (as Cu),mg/l                                           | <0.0005    | <0.0005    | <0.0005    | 1.5        | IS 3025 (Part 65) 2022          |
| 12      | Iron (as Fe),mg/l                                             | <0.005     | <0.005     | <0.005     | 50         | IS 3025 (Part 65) 2022          |
| 13      | Zinc (as Zn),mg/l                                             | <0.005     | <0.005     | <0.005     | 15         | IS 3025 (Part 65) 2022          |
| 14      | Total Arsenic (as As), (mg/l)                                 | <0.0005    | <0.0005    | <0.0005    | 0.2        | IS 3025 (Part 65) 2022          |
| 15      | Lead (as Pb), mg/l                                            | <0.0005    | <0.0005    | <0.0005    | 0.1        | IS 3025 (Part 65) 2022          |
| 16      | Cadmium (as Cd), mg/l,                                        | <0.0005    | <0.0005    | <0.0005    | 0.01       | IS 3025 (Part 65) 2022          |
| 17      | Hexavalent Chromium (as Cr <sup>VI</sup> ), mg/l              | <0.03      | <0.03      | <0.03      | 0.05       | IS 3025 (Part 52):2019 RA 2023  |
| 18      | Selenium (as Se), mg/l                                        | <0.0005    | <0.0005    | <0.0005    | 0.05       | IS 3025 (Part 65) 2022          |
| 19      | Cyanide (as CN), mg/l,                                        | <0.01      | <0.01      | <0.01      | 0.05       | IS 3025 (Part 27/Sec1) 2021     |
| 20      | Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH),mg/l | <0.001     | <0.001     | <0.001     | 0.005      | IS 3025 (Part 43/Sec1) 2022     |
| 21      | Anionic detergents (as MBAS),mg/l                             | <0.1       | <0.1       | <0.1       | 1.0        | IS 3025 (Part 68) 2023          |

Note : Class-C: Drinking water with conventional treatment followed by disinfection.

"END OF REPORT"

  
BINU MANI  
TM - Microbiology  
Govt Analyst/Authorised Signatory

  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in

Note : This report is subject to the terms and conditions mentioned overleaf.





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 12

|                           |                                                                    |                                 |           |                        |
|---------------------------|--------------------------------------------------------------------|---------------------------------|-----------|------------------------|
| Name of the Client        |                                                                    | : M/s. Minerals and Metals      |           |                        |
| Name of the Project       |                                                                    | : Redi Iron Ore Mine            |           |                        |
| Sample Location           |                                                                    | : STP1 - Sewage Treatment Plant |           |                        |
| Date of sample collection |                                                                    | : 09.09.2025                    |           |                        |
| Date of sample receipt    |                                                                    | : 10.09.2025                    |           |                        |
| Report no                 |                                                                    | : M005525092                    |           |                        |
| Issue Date                |                                                                    | : 03.10.2025                    |           |                        |
| Ref                       |                                                                    | : Schedule -1 Sl.No-2 of CTO    |           |                        |
| Sample code               |                                                                    | STP1                            | Standards | Method of Testing      |
| Sl. No.                   | Parameters                                                         | Results                         |           |                        |
| 1                         | pH                                                                 | 6.48                            | -         | IS 3025 (P-11) 2022    |
| 2                         | Biochemical Oxygen Demand BOD <sub>3</sub> 27 <sup>0</sup> C, mg/l | 25                              | <30       | IS 3025 (Part 44) 2023 |
| 3                         | Total Suspended Solids, at 105 <sup>0</sup> C, mg/l                | 17                              | <50       | IS 3025 (P-17) 2022    |
| 4                         | Chemical Oxygen Demand (COD) (mg/l)                                | 43                              | <100      | IS 3025 (Part 58) 2023 |

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in