

ENVIRONMENTAL MONITORING REPORT

Project	REDI IRON ORE MINE
Location	Redi Village Vengurla Taluka, Sindudurg Dist Maharashtra
Client	MINERALS AND METALS
Office Address	P. O. Redi, Tal Vengurla, Sindhudurga 416517, Maharashtra (India)
Monitoring Month	August -2026

ENVIRONMENTAL LABORATORY (Unit of Mineral Engineering Services LLP)

Recognised by MoEF&CC Under E(P) Act 1986

&

Accredited by NABL

#948, 2nd Cross, Kammanahalli Main Road,

St Thomas Town Post,

Bangalore- 560 084, Karnataka

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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 : 04.09.2026
Sampling & Test Method : IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
07.08.2026	N021126082	10	12	36	19	<20	<1
08.08.2026	N006226083	11	15	38	20	<20	<1
10.08.2026	N013426083	12	16	42	22	<20	<1
11.08.2026	N020126083	9	13	44	24	<20	<1
17.08.2026	N005026084	9	11	40	20	<20	<1
18.08.2026	N007626084	11	14	36	18	<20	<1
24.08.2026	N0018026085	8	11	42	25	<20	<1
25.08.2026	N0024826085	10	12	48	26	<20	<1
NAAQs Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
07.08.2026	N021126082	0.16	<0.1	<0.5	<0.5	0.28	22
08.08.2026	N006226083	0.20	<0.1	<0.5	<0.5	0.21	25
10.08.2026	N013426083	0.21	<0.1	<0.5	<0.5	0.30	24
11.08.2026	N020126083	0.17	<0.1	<0.5	<0.5	0.12	21
17.08.2026	N005026084	0.13	<0.1	<0.5	<0.5	0.20	23
18.08.2026	N007626084	0.15	<0.1	<0.5	<0.5	0.11	25
24.08.2026	N0018026085	0.11	<0.1	<0.5	<0.5	0.33	22
25.08.2026	N0024826085	0.20	<0.1	<0.5	<0.5	0.25	20
NAAQS Limits for Industrial , Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

Arushi Kousar
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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 : 04.09.2026
Sampling & Test Method : IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
07.08.2026	N020926082	8	10	28	15	<20	<1
08.08.2026	N005926083	7	9	38	18	<20	<1
10.08.2026	N013126083	9	11	36	20	<20	<1
11.08.2026	N019826083	10	13	28	15	<20	<1
17.08.2026	N004726084	5	8	26	16	<20	<1
18.08.2026	N007326084	6	9	40	24	<20	<1
24.08.2026	N0017726085	9	12	36	20	<20	<1
25.08.2026	N0024526085	7	9	34	19	<20	<1
NAAQs Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
07.08.2026	N020926082	0.17	<0.1	<0.5	<0.5	0.19	25
08.08.2026	N005926083	0.21	<0.1	<0.5	<0.5	0.25	23
10.08.2026	N013126083	0.18	<0.1	<0.5	<0.5	0.21	22
11.08.2026	N019826083	0.23	<0.1	<0.5	<0.5	0.26	20
17.08.2026	N004726084	0.20	<0.1	<0.5	<0.5	0.21	18
18.08.2026	N007326084	0.13	<0.1	<0.5	<0.5	0.17	26
24.08.2026	N0017726085	0.15	<0.1	<0.5	<0.5	0.18	24
25.08.2026	N0024526085	0.19	<0.1	<0.5	<0.5	0.20	21
NAAQS Limits for Industrial , Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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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 : 04.09.2026							
Sampling & Test Method : IS 5182 & Lab SOP							
Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m
05.08.2026	N011026082	9	11	42	22	<20	<1
08.08.2026	N006126083	6	9	40	28	<20	<1
10.08.2026	N013326083	5	8	37	21	<20	<1
11.08.2026	N020026083	8	10	26	14	<20	<1
17.08.2026	N004926084	4	7	34	16	<20	<1
18.08.2026	N007526084	9	12	32	20	<20	<1
24.08.2026	N0017926085	7	9	28	16	<20	<1
25.08.2026	N0024726085	5	6	32	18	<20	<1
NAAQs Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
05.08.2026	N011026082	0.22	<0.1	<0.5	<0.5	0.24	24
08.08.2026	N006126083	0.13	<0.1	<0.5	<0.5	0.18	21
10.08.2026	N013326083	0.17	<0.1	<0.5	<0.5	0.19	18
11.08.2026	N020026083	0.15	<0.1	<0.5	<0.5	0.18	22
17.08.2026	N004926084	0.14	<0.1	<0.5	<0.5	0.16	27
18.08.2026	N007526084	0.12	<0.1	<0.5	<0.5	0.15	24
24.08.2026	N0017926085	0.11	<0.1	<0.5	<0.5	0.14	22
25.08.2026	N0024726085	0.16	<0.1	<0.5	<0.5	0.18	20
NAAQS Limits for Industrial , Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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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 : 04.09.2026
Sampling & Test Method : IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
05.08.2026	N011126082	7	9	30	22	<20	<1
06.08.2026	N014226082	8	10	30	24	<20	<1
12.08.2026	N023826083	6	8	26	15	<20	<1
13.08.2026	N027026083	10	12	24	14	<20	<1
19.08.2026	N011026084	10	13	42	26	<20	<1
20.08.2026	N014626084	8	10	37	18	<20	<1
26.08.2026	N0029426085	4	6	39	22	<20	<1
26.08.2026	N0029526085	9	11	40	26	<20	<1
NAAQs Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
05.08.2026	N011126082	0.12	<0.1	<0.5	<0.5	0.21	20
06.08.2026	N014226082	0.20	<0.1	<0.5	<0.5	0.22	26
12.08.2026	N023826083	0.17	<0.1	<0.5	<0.5	0.20	22
13.08.2026	N027026083	0.12	<0.1	<0.5	<0.5	0.15	20
19.08.2026	N011026084	0.16	<0.1	<0.5	<0.5	0.19	23
20.08.2026	N014626084	0.15	<0.1	<0.5	<0.5	0.17	24
26.08.2026	N0029426085	0.14	<0.1	<0.5	<0.5	0.16	26
26.08.2026	N0029526085	0.22	<0.1	<0.5	<0.5	0.25	25
NAAQS Limits for Industrial , Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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Table No. 5

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 : A5 - Shiroda village
Duration : 24 Hrs
Issue Date : 04.09.2026
Sampling & Test Method : IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
05.08.2026	N011126082	7	9	30	22	<20	<1
06.08.2026	N014226082	8	10	30	24	<20	<1
12.08.2026	N023826083	6	8	26	15	<20	<1
13.08.2026	N027026083	10	12	24	14	<20	<1
19.08.2026	N011026084	10	13	42	26	<20	<1
20.08.2026	N014626084	8	10	37	18	<20	<1
26.08.2026	N0029426085	4	6	39	22	<20	<1
26.08.2026	N0029526085	9	11	40	26	<20	<1
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
05.08.2026	N011126082	0.12	<0.1	<0.5	<0.5	0.21	20
06.08.2026	N014226082	0.20	<0.1	<0.5	<0.5	0.22	26
12.08.2026	N023826083	0.17	<0.1	<0.5	<0.5	0.20	22
13.08.2026	N027026083	0.12	<0.1	<0.5	<0.5	0.15	20
19.08.2026	N011026084	0.16	<0.1	<0.5	<0.5	0.19	23
20.08.2026	N014626084	0.15	<0.1	<0.5	<0.5	0.17	24
26.08.2026	N0029426085	0.14	<0.1	<0.5	<0.5	0.16	26
26.08.2026	N0029526085	0.22	<0.1	<0.5	<0.5	0.25	25
NAAQS Limits for Industrial , Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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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 (Unit of Mineral Engineering Services LLP)					
Code & Station : A6 - Near NIMCO Gate - Tivrewadi, Redi village					
Duration : 24 Hrs					
Issue Date : 04.09.2026					
Sampling & Test Method : IS 5182 & Lab SOP					
Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)
05.08.2026	N011226082	4	6	30	16
06.08.2026	N014326082	6	8	28	16
12.08.2026	N023926083	4	7	27	23
13.08.2026	N027126083	9	11	28	19
19.08.2026	N011126084	6	8	34	19
20.08.2026	N014726084	8	9	40	23
26.08.2026	N0029626085	5	7	26	15
26.08.2026	N0029726085	7	10	24	13
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs

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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 (Unit of Mineral Engineering Services LLP)					
Code & Station : A7 - Near Primary School - sakalbhatwadi Redi village					
Duration : 24 Hrs					
Issue Date : 04.09.2026					
Sampling & Test Method : IS 5182 & Lab SOP					
Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)
05.08.2026	N014426082	10	12	28	15
06.08.2026	N021126082	10	12	36	19
12.08.2026	N024026083	6	8	26	14
13.08.2026	N027226083	8	9	30	16
19.08.2026	N011226084	5	7	27	15
20.08.2026	N014826084	7	9	42	26
26.08.2026	N0029826085	9	11	32	17
26.08.2026	N0029926085	9	10	26	14
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs

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Table No. 8

Fugitive Emission

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)					
Duration		: 08 Hrs					
Issue Date		: 04.09.2026					
Code & Station	Date of sample	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ (µg/m ³)	SPM (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
FA1- Unloading Point	August, 2026	No Mining Operation					
FA2 - Haulage Road							
FA3 - Loading Area							
Limits for Within in Mining Area Pollutant			SO ₂	NO ₂	RPM (PM ₁₀)	SPM (PM)	CO
Concentration in Ambient Air			120	120	250	500	4
Time Weighted Average			24 Hrs	24 Hrs	24 Hrs	24 Hrs	1 Hr
Note : * Parameters monitored for period of 1 hr							

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TEST REPORT

Table No. 9

STATISTICAL AIR QUALITY DATA

Name of the Client : M/s. Minerals and Metals												
Name of the Project : Redi Iron Ore Mine												
Month : August, 2026												
Code & Station	A1 - Core zone Within ML Area				A2 - Redi village (Within 200m from the ML Area)				A3 - Gaontala village			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
Min.	8	11	36	18	5	8	26	15	4	6	26	14
10%	9	11	36	19	6	9	27	15	5	7	27	15
25%	9	12	38	20	7	9	28	16	5	8	31	16
50%	10	13	41	21	8	10	35	19	7	9	33	19
75%	11	14	43	24	9	11	37	20	8	10	38	21
98%	12	16	47	26	10	13	40	23	9	12	42	27
Max.	12	16	48	26	10	13	40	24	9	12	42	28
Avg.	10	13	41	22	8	10	33	18	7	9	34	19
SD	1	2	4	3	2	2	5	3	2	2	6	4
No. of obs	8				8				8			
Code & Station	A4 - Kanyalwadi village				A5 - Shiroda village							
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}				
Min.	4	6	24	14	4	6	24	14				
10%	5	7	25	15	5	7	25	15				
25%	7	9	29	17	7	9	29	17				
50%	8	10	34	22	8	10	34	22				
75%	9	11	39	25	9	11	39	25				
98%	10	13	42	26	10	13	42	26				
Max.	10	13	42	26	10	13	42	26				
Avg.	8	10	34	21	8	10	34	21				
SD	2	2	7	5	2	2	7	5				
No. of obs	8				8							

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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
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	: 07.08.2026
Date of sample receipt	: 08.08.2026
Report No	: M003526082
Issue Date	: 04.09.2026
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	30	—	IS:3025 (part-4)
2	Suspended Solids (mg/l), Max	33	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	5.88	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 ₃ (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	30	IS 3025 (Part 44) 2023
12	COD (mg/l), Max	30.72	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 ⁺⁶ (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	<0.1	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	<0.1	2.0	APHA 24th Edition 4500F
25	Dissolved Phosphates as PO ₄ (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 ₆ H ₅ 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	2.12	10	IS 3025 (P-34) 1988 RA 2019

""END OF REPORT""

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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.			
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		: 07.08.2026			
Date of sample receipt		: 08.08.2026			
Issue Date		: 04.09.2026			
Ref		: Environmental (P) Rules, 1986 SCHEDULE VI			
Report No		-	M003626082	Standards For Effluent Discharge of Environmental Pollutants	
Sample code		W2	W3	Method of Testing	
Sl. No.	Parameters	Results			
1	Colour (Hazen Units), & Odour	15		--	IS:3025 (part-4)
2	Suspended Solids (mg/l), Max	<5		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	5.83		5.5 to 9.0	IS 3025 (P-11) 2022
5	Temperature °C	26		Shall not exceed 5°C above the receiving water temp	IS 3025 (Part 9) 2023
6	Oil & Grase (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 ₃ (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		30	IS 3025 (Part 44) 2023
12	COD (mg/l), Max	8.4		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 ⁺⁶ (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	<0.1		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	<0.1		2.0	APHA 24th Edition 4500F
25	Dissolved Phosphates as PO ₄ (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 ₆ H ₅ 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	1.24		10	IS 3025 (P-34) 1988 Ed. 2019

END OF REPORT

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TEST REPORT

Table No.12

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	: 07.08.2026
Date of sample receipt	: 08.08.2026
Issue Date	: 04.09.2026
Ref : IS : 2296 Water Quality Standards	

Sl. No.	Report No	M004026082	M004126082	M004226082	Limits	Method of Testing
	Sample Code	SW1	SW2	SW3		
	Parameters	Results				
1	Colour (Hazen Units)	5	15	5	300	IS 3025 (Part 4) 2021
2	pH	6.61	6.58	6.55	6.5 to 8.5	IS 3025 (Part 11) 2022
3	Dissolved Oxygen (as O ₂), mg/l	5.70	5.40	5.50	Min 4	IS 3025 (Part 38):1989 RA 2019
4	Biochemical Oxygen Demand (as O ₂), mg/l	<3	<3	<3	Max 3	IS 3025 (Part 44) 2023
5	Total Coliform (MPN/100ml)	88	70	63	5000	IS 15185 2016 RA 2021
6	Total Dissolved Solids, (mg/l)	179	326	252	1500	IS 3025 (Part 16) 2023
7	Chloride (as Cl),mg/l	50.00	125.00	95.00	600	IS 3025 (Part 32) :1988 RA 2019
8	Sulphates as SO ₄ (mg/l)	32.14	70.12	22.15	400	APHA (24th Edition):4110B
9	Nitrates (as NO ₃),mg/l	0.13	0.34	0.37	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 ⁺⁶),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 ₆ H ₅ 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


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TEST REPORT

Table No. 13

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		: 07.08.2026		
Date of sample receipt		: 08.08.2026		
Report no		: M003726082		
Issue Date		: 04.09.2026		
Ref		:Schedule -1 Sl.No-2 of CTO		
Sample code		STP1		
Sl. No.	Parameters	Results	Standards	Method of Testing
1	pH	6.92	-	IS 3025 (P-11) 2022
2	Biochemical Oxygen Demand BOD ₃ 27 ⁰ C, mg/l	12	<30	IS 3025 (Part 44) 2023
3	Total Suspended Solids, at 105 ⁰ C, mg/l	36	<50	IS 3025 (P-17) 2022
4	Chemical Oxygen Demand (COD) (mg/l)	40	<100	IS 3025 (Part 58) 2023

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