

ENVIRONMENTAL MONITORING REPORT

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

ENVIRONMENTAL LABORATORY
(Unit of Mineral Engineering Services LLP)
(Accredited by NABL & MOEF&CC Under E(P) Act 1986)
#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)
Particulars of sample collected : A1 - Core zone Within ML Area
Duration : 24 Hrs
Issue Date : 04.07.2025
Reference 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
04.06.2025	N008125062	9	11	49	27	<20	<1
05.06.2025	N012925062	11	15	55	29	<20	<1
13.06.2025	N032125063	7	12	45	24	<20	<1
14.06.2025	N038325063	12	18	48	26	<20	<1
20.06.2025	N019925064	9	11	38	19	<20	<1
21.06.2025	N006725065	11	15	51	27	<20	<1
23.06.2025	N013225065	13	17	50	28	<20	<1
24.06.2025	N019225065	9	11	45	22	<20	<1
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
04.06.2025	N008125062	0.18	<0.1	<0.5	<0.5	0.22	25
05.06.2025	N012925062	0.12	<0.1	<0.5	<0.5	0.26	23
13.06.2025	N032125063	0.11	<0.1	<0.5	<0.5	0.28	20
14.06.2025	N038325063	0.17	<0.1	<0.5	<0.5	0.25	21
20.06.2025	N019925064	0.21	<0.1	<0.5	<0.5	0.31	28
21.06.2025	N006725065	0.13	<0.1	<0.5	<0.5	0.20	23
23.06.2025	N013225065	0.11	<0.1	<0.5	<0.5	0.24	21
24.06.2025	N019225065	0.15	<0.1	<0.5	<0.5	0.21	20
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. 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)
Particulars of sample collected : A2 - Redi village (Within 200m from the ML Area)
Duration : 24 Hrs
Issue Date : 04.07.2025
Reference 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
04.06.2025	N007525062	11	13	42	27	<20	<1
05.06.2025	N012325062	8	17	49	26	<20	<1
13.06.2025	N031525063	11	15	53	27	<20	<1
14.06.2025	N037725063	7	12	41	21	<20	<1
20.06.2025	N019325064	10	14	37	17	<20	<1
21.06.2025	N006125065	8	13	53	27	<20	<1
23.06.2025	N012625065	11	14	38	22	<20	<1
24.06.2025	N018625065	8	12	45	25	<20	<1
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
04.06.2025	N007525062	0.16	<0.1	<0.5	<0.5	0.35	26
05.06.2025	N012325062	0.15	<0.1	<0.5	<0.5	0.22	28
13.06.2025	N031525063	0.13	<0.1	<0.5	<0.5	0.25	20
14.06.2025	N037725063	0.11	<0.1	<0.5	<0.5	0.30	23
20.06.2025	N019325064	0.15	<0.1	<0.5	<0.5	0.25	25
21.06.2025	N006125065	0.12	<0.1	<0.5	<0.5	0.36	24
23.06.2025	N012625065	0.22	<0.1	<0.5	<0.5	0.20	25
24.06.2025	N018625065	0.25	<0.1	<0.5	<0.5	0.26	21
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.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)
Particulars of sample collected : A3 - Gaontala village
Duration : 24 Hrs
Issue Date : 04.07.2025
Reference 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
04.06.2025	N007725062	12	21	51	27	<20	<1
05.06.2025	N012525062	8	17	53	26	<20	<1
13.06.2025	N031725063	10	13	44	25	<20	<1
14.06.2025	N037925063	9	15	35	19	<20	<1
20.06.2025	N019525064	10	19	44	26	<20	<1
21.06.2025	N006325065	7	11	40	20	<20	<1
23.06.2025	N012825065	6	14	52	28	<20	<1
24.06.2025	N018825065	8	11	38	24	<20	<1
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
04.06.2025	N007725062	0.21	<0.1	<0.5	<0.5	0.30	25
05.06.2025	N012525062	0.18	<0.1	<0.5	<0.5	0.25	26
13.06.2025	N031725063	0.16	<0.1	<0.5	<0.5	0.45	21
14.06.2025	N037925063	0.22	<0.1	<0.5	<0.5	0.33	20
20.06.2025	N019525064	0.11	<0.1	<0.5	<0.5	0.22	21
21.06.2025	N006325065	0.15	<0.1	<0.5	<0.5	0.15	23
23.06.2025	N012825065	0.10	<0.1	<0.5	<0.5	0.21	25
24.06.2025	N018825065	0.19	<0.1	<0.5	<0.5	0.30	27
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)
Particulars of sample collected : A4 - Kanyalwadi village
Duration : 24 Hrs
Issue Date : 04.07.2025
Reference 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
04.06.2025	N007825062	7	12	49	22	<20	<1
05.06.2025	N012625062	9	16	35	20	<20	<1
13.06.2025	N031825063	10	15	46	33	<20	<1
14.06.2025	N038025063	8	14	35	27	<20	<1
20.06.2025	N019625064	7	13	46	20	<20	<1
21.06.2025	N006425065	9	10	37	26	<20	<1
23.06.2025	N012925065	8	15	40	25	<20	<1
24.06.2025	N018925065	7	13	39	29	<20	<1
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
04.06.2025	N007825062	0.17	<0.1	<0.5	<0.5	0.23	25
05.06.2025	N012625062	0.12	<0.1	<0.5	<0.5	0.22	23
13.06.2025	N031825063	0.13	<0.1	<0.5	<0.5	0.21	21
14.06.2025	N038025063	0.21	<0.1	<0.5	<0.5	0.26	20
20.06.2025	N019625064	0.11	<0.1	<0.5	<0.5	0.28	24
21.06.2025	N006425065	0.15	<0.1	<0.5	<0.5	0.25	23
23.06.2025	N012925065	0.18	<0.1	<0.5	<0.5	0.32	21
24.06.2025	N018925065	0.21	<0.1	<0.5	<0.5	0.23	20
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. 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)
Particulars of sample collected : A5 - Shiroda village
Duration : 24 Hrs
Issue Date : 04.07.2025
Reference 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
04.06.2025	N007625062	12	13	53	28	<20	<1
05.06.2025	N012425062	8	12	51	26	<20	<1
13.06.2025	N031625063	11	14	34	20	<20	<1
14.06.2025	N037825063	8	12	36	27	<20	<1
20.06.2025	N019425064	11	13	48	29	<20	<1
21.06.2025	N006225065	7	10	35	18	<20	<1
23.06.2025	N012725065	10	14	40	27	<20	<1
24.06.2025	N018725065	10	15	38	22	<20	<1
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
04.06.2025	N007625062	0.18	<0.1	<0.5	<0.5	0.21	23
05.06.2025	N012425062	0.13	<0.1	<0.5	<0.5	0.20	25
13.06.2025	N031625063	0.12	<0.1	<0.5	<0.5	0.31	21
14.06.2025	N037825063	0.11	<0.1	<0.5	<0.5	0.28	23
20.06.2025	N019425064	0.15	<0.1	<0.5	<0.5	0.25	21
21.06.2025	N006225065	0.18	<0.1	<0.5	<0.5	0.22	28
23.06.2025	N012725065	0.11	<0.1	<0.5	<0.5	0.35	24
24.06.2025	N018725065	0.16	<0.1	<0.5	<0.5	0.24	23
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)

Particulars of sample collected

: A6 - Near NIMCO Gate - Tivrewadi, Redi village

Duration

: 24 Hrs

Issue Date

: 04.07.2025

Reference

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)
04.06.2025	N007925062	9	12	48	24
05.06.2025	N012725062	12	13	46	20
13.06.2025	N031925063	8	15	47	23
14.06.2025	N038125063	9	14	40	22
20.06.2025	N019725064	10	13	45	27
21.06.2025	N006525065	12	16	43	25
23.06.2025	N013025065	8	13	52	28
24.06.2025	N019025065	9	11	40	21
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs


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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
(Unit of Mineral Engineering Services LLP)

Particulars of sample collected : A7 - Near Primary School - sakalbhatwadi Redi village

Duration : 24 Hrs

Issue Date : 04.07.2025

Reference 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)
04.06.2025	N008025062	12	15	53	28
05.06.2025	N012825062	9	12	57	30
13.06.2025	N032025063	7	9	54	25
14.06.2025	N038225063	10	15	44	24
20.06.2025	N019825064	9	11	40	22
21.06.2025	N006625065	12	15	36	19
23.06.2025	N013125065	7	9	48	25
24.06.2025	N019125065	12	14	53	29
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

STATISTICAL AIR QUALITY DATA

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

Name of the Project : Redi Iron Ore Mine

Month : June, 2025

	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.	7	11	38	19	7	12	37	17	6	11	35	19
10%	8	11	43	21	8	12	38	20	7	11	37	20
25%	9	11	45	24	8	13	40	22	8	13	40	23
50%	10	14	49	27	9	14	44	26	9	15	44	26
75%	11	16	50	27	11	14	50	27	10	18	51	26
98%	13	18	54	29	11	17	53	27	12	21	53	28
Max.	13	18	55	29	11	17	53	27	12	21	53	28
Avg.	10	14	48	25	9	14	45	24	9	15	45	24
SD	2	3	5	3	2	2	6	4	2	4	7	3
No. of obs	8				8				8			
	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.	7	10	35	20	7	10	34	18				
10%	7	11	35	20	8	11	35	19				
25%	7	13	37	22	8	12	36	22				
50%	8	14	40	26	10	13	39	27				
75%	9	15	46	28	11	14	49	27				
98%	10	16	49	32	12	15	53	29				
Max.	10	16	49	33	12	15	53	29				
Avg.	8	14	41	25	10	13	42	25				
SD	1	2	5	5	2	2	8	4				
No. of obs	8				8							

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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		
Particulars of sample collected		: W1 - Pit water		
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services LLP)		
Date of sample collection		: 14.06.2025		
Report No		: M001125064		
Issue Date		: 26.06.2025		
Ref		: Environmental (P) Rules, 1986 SCHEDULE VI		
Sl. No.	Parameters	W1 Results	General Standards For Effluent Discharge of Environmental Pollutants	Method of Testing
1	Colour (Hazen Units), & Odour	3	—	IS:3025(part-4) and IS 3025 (Part-5)
2	Suspended Solids (mg/l),	18	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	5.53	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 (P-9) 1984 RA2022
6	Oil & Grease (mg/l), Max	<4.0	10	IS 3025 (P-39) 2021
7	Total Residual Chlorine (mg/l)	<0.1	1.0	IS 3025 (P-26) 2021
8	Ammonical Nitrogen (mg/l)	<0.1	50	IS 3025 (P-34) 1988 RA 2019
9	Total Kjeldahl Nitrogen (mg/l)	<0.1	100	IS 3025 (P-34) 1988 RA 2019
10	Free Ammonia as NH ₃ (mg/l)	<0.1	5.0	IS 3025 (P-34) 1988 RA 2019
11	BOD [3 days at 27°C] (mg/l)	<3	30	IS 3025 (P-44) 2014
12	COD (mg/l)	15	250	IS 3025 (P-58) 2006 RA2022
13	Arsenic as As (mg/l)	<0.01	0.2	APHA 3030K
14	Mercury as Hg (mg/l)	<0.001	0.01	APHA 3030K
15	Lead as Pb (mg/l)	<0.01	0.1	APHA 3030K
16	Cadmium as Cd (mg/l)	<0.01	2.0	APHA 3030K
17	Hexavalent Chromium as Cr ⁺⁶ (mg/l)	<0.03	0.1	IS 3025 (P-52) 2014
18	Total Chromium as Cr(mg/l)	<0.01	2.0	APHA 3030K
19	Copper as Cu (mg/l)	<0.05	3.0	APHA 3030K
20	Zinc as Zn (mg/l)	<0.05	5.0	APHA 3030K
21	Selenium as Se (mg/l)	<0.05	0.05	APHA 3030K
22	Nickel as Ni (mg/l)	<0.05	3.0	APHA 3030K
23	Cyanide as CN (mg/l)	<0.01	0.2	IS 3025 (P-27) Sec 1 2021
24	Fluoride as F (mg/l)	<0.1	2.0	APHA 23rd Edition 4500F
25	Dissolved Phosphates as PO ₄ (mg/l)	<0.05	5.0	IS 2488 (P-31) Sec 1 2022
26	Sulphide as S (mg/l)	<0.01	2.0	IS 3025 (P-29) 2022
27	Phenolic Compounds as C ₆ H ₅ OH (mg/l),	<0.001	1.0	IS 3025 (P-43) Sec 1 2022
28	Manganese as Mn (mg/l)	<0.01	2	APHA 3030K
29	Iron as Fe (mg/l)	<0.05	3	APHA 3030K
30	Vanadium as V (mg/l)	<0.01	0.2	APHA 3030K
31	Nitrate Nitrogen (mg/l)	<1	10	IS 3025 (P-34) 1988 RA 2019

""END OF REPORT""

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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			
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		: 14.06.2025			
Issue Date		: 26.06.2025			
Ref		: Environmental (P) Rules, 1986 SCHEDULE VI			
Report No		-	M001225064	General Standards For Effluent Discharge of Environmental Pollutants	Method of Testing
Sl. No.	Sample code	W2	W3		
	Parameters	Results			
1	Colour (Hazen Units), & Odour	No Discharge	30	--	IS:3025(part-4) and IS 3025 (Part-5)
2	Suspended Solids (mg/l),		70	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		5.63	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 (P-9) 1984 RA2022
6	Oil & Grease (mg/l), Max		<4.0	10	IS 3025 (P-39) 2021
7	Total Residual Chlorine (mg/l)		<0.1	1.0	IS 3025 (P-26) 2021
8	Ammonical Nitrogen (mg/l)		<0.1	50	IS 3025 (P-34) 1988 RA 2019
9	Total Kjeldahl Nitrogen (mg/l)		<0.1	100	IS 3025 (P-34) 1988 RA 2019
10	Free Ammonia as NH ₃ (mg/l)		<0.1	5.0	IS 3025 (P-34) 1988 RA 2019
11	BOD [3 days at 27 ⁰ C] (mg/l)		<3	30	IS 3025 (P-44) 2014
12	COD (mg/l)		80	250	IS 3025 (P-58) 2006 RA2022
13	Arsenic as As (mg/l)		<0.01	0.2	APHA 3030K
14	Mercury as Hg (mg/l)		<0.001	0.01	APHA 3030K
15	Lead as Pb (mg/l)		<0.01	0.1	APHA 3030K
16	Cadmium as Cd (mg/l)		<0.01	2.0	APHA 3030K
17	Hexavalent Chromium as Cr ⁺⁶ (mg/l)		<0.03	0.1	IS 3025 (P-52) 2014
18	Total Chromium as Cr(mg/l)		<0.01	2.0	APHA 3030K
19	Copper as Cu (mg/l)		<0.05	3.0	APHA 3030K
20	Zinc as Zn (mg/l)		<0.05	5.0	APHA 3030K
21	Selenium as Se (mg/l)		<0.05	0.05	APHA 3030K
22	Nickel as Ni (mg/l)		<0.05	3.0	APHA 3030K
23	Cyanide as CN (mg/l)		<0.01	0.2	IS 3025 (P-27) Sec 1 2021
24	Fluoride as F (mg/l)		<0.1	2.0	APHA23rd Edition 4500F
25	Dissolved Phosphates as PO ₄ (mg/l)		<0.05	5.0	IS 2488 (P-31) Sec 1 2022
26	Sulphide as S (mg/l)		<0.01	2.0	IS 3025 (P-29) 2022
27	Phenolic Compounds as C ₆ H ₅ OH (mg/l)		<0.001	1.0	IS 3025 (P-43) Sec 1 2022
28	Manganese as Mn (mg/l)		<0.01	2	APHA 3030K
29	Iron as Fe (mg/l)		<0.05	3	APHA 3030K
30	Vanadium as V (mg/l)		<0.01	0.2	APHA 3030K
31	Nitrate Nitrogen (mg/l)		<1	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		: SW1 - Kanyal tank water, SW2 - Nallah water Near Kanyalwadi SW3- Near Hanuman temple Kanyalwadi village				
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services LLP)				
Date of sample collection		: 14.06.2025				
Issue Date		: 26.06.2025				
Ref : IS : 2296 Water Quality Standards						
Sl. No.	Report No	M001525064	M001625064	M001725064	Limits	Method of Testing
	Sample Code	SW1	SW2	SW3		
	Parameters	Results				
1	Colour (Hazen Units)	5	1	1	300	IS:3025(Part-4)2021
2	pH	6.55	6.62	7.35	6.5 to 8.5	IS:3025(Part-11)2022
3	Dissolved Oxygen (as O ₂), mg/l	5.6	5.5	5.7	Min 4	IS:3025(Part-38)1989RA 2019
4	Biochemical Oxygen Demand (as O ₂), mg/l	<3	<3	<3	3	IS:3025(P-44) 2014
5	Total Coliform (MPN/100ml)	83	108	89	5000	IS:1622:1981
6	Total Dissolved Solids, (mg/l)	216	226	86	1500	IS:3025(Part-16)2023
7	Chloride (as Cl),mg/l	120.0	95	32	600	IS:3025(Part-32) ;1988RA2019
8	Sulphates as SO ₄ (mg/l)	18.0	26	12.5	400	IS:3025(P-24)Sec 1 2022
9	Nitrates (as NO ₃),mg/l	7.50	12.80	5.50	50	IS:3025(Part-34)1988 RA 2019
10	Fluoride (as F),mg/l	<0.1	<0.1	<0.1	1.5	APHA 23rd Edition 4500F
11	Copper (as Cu),mg/l	<0.005	<0.005	<0.005	1.5	IS:3025(Part-2) 2019
12	Iron (as Fe),mg/l	<0.005	<0.005	<0.005	50	IS:3025(P-2) 2019
13	Zinc (as Zn),mg/l	<0.005	<0.005	<0.005	15	IS:3025(P-2) 2019
14	Total Arsenic (as As), (mg/l)	<0.002	<0.002	<0.002	0.2	IS:3025(Part-37)
15	Lead (as Pb), mg/l	<0.005	<0.005	<0.005	0.1	IS:3025(P-2) 2019
16	Cadmium (as Cd), mg/l	<0.001	<0.001	<0.001	0.01	IS:3025(P-2) 2019
17	Hexavalent Chromium (as Cr ⁺⁶), mg/l	<0.03	<0.03	<0.03	0.05	IS:3025(P-52) 2014
18	Selenium (as Se), mg/l	<0.005	<0.005	<0.005	0.05	IS:3025(P-2) 2019
19	Cyanide (as CN), mg/l	<0.005	<0.005	<0.005	0.05	IS:3025(P-27) Sec 1 2021
20	Phenolic compounds (as C ₆ H ₅ OH),mg/l	<0.001	<0.001	<0.001	0.005	IS:3025(P-43)Sec 1 2022
21	Anionic detergents (as MBAS),mg/l	<0.1	<0.1	<0.1	1.0	IS:3025(Part-68)
Note : Class-C: Drinking water with conventional treatment followed by disinfection.						

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""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		
Particulars of sample collected		: STP1 - Sewage Treatment Plant		
Date of sample collection		: 14.06.2025		
Report no		: M001725064		
Issue Date		: 26.06.2025		
Ref		:Schedule -1 SI.No-2 of CTO		
Sample code		STP1	Standards	Method of Testing
Sl. No.	Parameters	Results		
1	pH	6.98	-	IS 3025 (P-11) 2022
2	Biochemical Oxygen Demand BOD ₅ 27 ⁰ C, mg/l	30	<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)	48	<100	IS 3025 (Part 58) 2023

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