

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	September -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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ENVIRONMENTAL LABORATORY

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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 : 05.10.2026
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
04.09.2026	N012826091	7	9	30	16	<20	<1
05.09.2026	N007826092	10	12	42	23	<20	<1
07.09.2026	N013726092	13	15	36	20	<20	<1
08.09.2026	N018926092	9	11	45	27	<20	<1
16.09.2026	N010726093	7	9	38	20	<20	<1
17.09.2026	N015626093	10	12	48	25	<20	<1
23.09.2026	N021626094	6	9	40	22	<20	<1
24.09.2026	N025026094	10	12	36	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
04.09.2026	N012826091	0.20	<0.1	<0.5	<0.5	0.21	24
05.09.2026	N007826092	0.14	<0.1	<0.5	<0.5	0.25	26
07.09.2026	N013726092	0.25	<0.1	<0.5	<0.5	0.33	22
08.09.2026	N018926092	0.18	<0.1	<0.5	<0.5	0.25	20
16.09.2026	N010726093	0.11	<0.1	<0.5	<0.5	0.29	19
17.09.2026	N015626093	0.28	<0.1	<0.5	<0.5	0.27	22
23.09.2026	N021626094	0.14	<0.1	<0.5	<0.5	0.20	18
24.09.2026	N025026094	0.26	<0.1	<0.5	<0.5	0.25	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

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



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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	: 05.10.2026						
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
04.09.2026	N012526091	6	9	36	22	<20	<1
05.09.2026	N007526092	8	10	25	13	<20	<1
07.09.2026	N013426092	10	12	32	18	<20	<1
08.09.2026	N018626092	7	9	48	25	<20	<1
16.09.2026	N010426093	9	11	37	19	<20	<1
17.09.2026	N015326093	8	10	45	24	<20	<1
23.09.2026	N021326094	10	12	40	22	<20	<1
24.09.2026	N024726094	12	14	28	15	<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
04.09.2026	N012526091	0.17	<0.1	<0.5	<0.5	0.21	19
05.09.2026	N007526092	0.12	<0.1	<0.5	<0.5	0.25	26
07.09.2026	N013426092	0.11	<0.1	<0.5	<0.5	0.18	20
08.09.2026	N018626092	0.28	<0.1	<0.5	<0.5	0.22	22
16.09.2026	N010426093	0.14	<0.1	<0.5	<0.5	0.20	24
17.09.2026	N015326093	<0.1	<0.1	<0.5	<0.5	0.26	27
23.09.2026	N021326094	0.12	<0.1	<0.5	<0.5	0.21	29
24.09.2026	N024726094	0.22	<0.1	<0.5	<0.5	0.26	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							

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



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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)						
Code & Station	: A3 - Gaontala village						
Duration	: 24 Hrs						
Issue Date	: 05.10.2026						
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
04.09.2026	N012726091	8	10	35	18	<20	<1
05.09.2026	N007726092	7	9	29	16	<20	<1
07.09.2026	N013626092	9	11	34	17	<20	<1
08.09.2026	N018826092	6	9	43	25	<20	<1
16.09.2026	N010626093	8	10	39	19	<20	<1
17.09.2026	N015526093	7	9	25	15	<20	<1
23.09.2026	N021526094	9	11	37	20	<20	<1
24.09.2026	N024926094	7	10	42	22	<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
04.09.2026	N012726091	0.28	<0.1	<0.5	<0.5	0.25	19
05.09.2026	N007726092	0.13	<0.1	<0.5	<0.5	0.27	21
07.09.2026	N013626092	0.29	<0.1	<0.5	<0.5	0.20	22
08.09.2026	N018826092	0.23	<0.1	<0.5	<0.5	0.21	23
16.09.2026	N010626093	0.15	<0.1	<0.5	<0.5	0.25	28
17.09.2026	N015526093	0.22	<0.1	<0.5	<0.5	0.28	24
23.09.2026	N021526094	0.31	<0.1	<0.5	<0.5	0.22	26
24.09.2026	N024926094	0.28	<0.1	<0.5	<0.5	<0.2	24
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

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.

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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 : 05.10.2026
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
02.09.2026	N003426091	6	9	39	16	<20	<1
03.09.2026	N007326091	8	9	26	16	<20	<1
09.09.2026	N021526092	10	11	45	23	<20	<1
10.09.2026	N024926092	6	9	38	18	<20	<1
18.09.2026	N022026093	8	10	42	22	<20	<1
19.09.2026	N006026094	10	13	47	26	<20	<1
21.09.2026	N011326094	9	11	35	17	<20	<1
22.09.2026	N016626094	8	10	29	15	<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
02.09.2026	N003426091	0.23	<0.1	<0.5	<0.5	0.28	18
03.09.2026	N007326091	0.27	<0.1	<0.5	<0.5	0.25	16
09.09.2026	N021526092	0.15	<0.1	<0.5	<0.5	0.27	27
10.09.2026	N024926092	0.19	<0.1	<0.5	<0.5	0.22	18
18.09.2026	N022026093	0.20	<0.1	<0.5	<0.5	0.20	17
19.09.2026	N006026094	0.14	<0.1	<0.5	<0.5	0.26	25
21.09.2026	N011326094	<0.1	<0.1	<0.5	<0.5	0.18	20
22.09.2026	N016626094	0.22	<0.1	<0.5	<0.5	<0.2	23
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

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

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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)						
Code & Station	: A5 - Shiroda village						
Duration	: 24 Hrs						
Issue Date	: 05.10.2026						
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
04.09.2026	N012626091	11	13	27	14	<20	<1
05.09.2026	N007626092	8	10	31	16	<20	<1
07.09.2026	N013526092	6	9	48	26	<20	<1
08.09.2026	N018726092	7	9	43	25	<20	<1
16.09.2026	N010526093	9	11	37	19	<20	<1
17.09.2026	N015426093	10	12	42	23	<20	<1
23.09.2026	N021426094	6	10	38	17	<20	<1
24.09.2026	N024826094	11	12	44	24	<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
04.09.2026	N012626091	0.25	<0.1	<0.5	<0.5	<0.2	26
05.09.2026	N007626092	0.16	<0.1	<0.5	<0.5	0.20	28
07.09.2026	N013526092	0.10	<0.1	<0.5	<0.5	0.24	23
08.09.2026	N018726092	0.22	<0.1	<0.5	<0.5	0.22	22
16.09.2026	N010526093	0.13	<0.1	<0.5	<0.5	0.29	27
17.09.2026	N015426093	0.11	<0.1	<0.5	<0.5	0.25	25
23.09.2026	N021426094	0.20	<0.1	<0.5	<0.5	0.26	29
24.09.2026	N024826094	0.21	<0.1	<0.5	<0.5	0.21	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

Arshiy 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



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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 : 05.10.2026					
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)
02.09.2026	N003526091	6	8	33	14
03.09.2026	N007426091	9	11	49	26
09.09.2026	N021626092	7	9	42	23
10.09.2026	N025026092	6	8	38	19
18.09.2026	N022126093	10	11	35	15
19.09.2026	N006126094	8	10	41	25
21.09.2026	N011426094	6	9	34	15
22.09.2026	N016726094	7	9	39	17
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs

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

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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 : 05.10.2026					
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)
02.09.2026	N003626091	9	11	46	25
03.09.2026	N007526091	11	13	33	16
09.09.2026	N021726092	6	8	42	23
10.09.2026	N025126092	10	11	26	14
18.09.2026	N022226093	7	9	30	15
19.09.2026	N006226094	6	8	35	16
21.09.2026	N011526094	8	10	45	24
22.09.2026	N016826094	9	10	47	26
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs

Arshiya K DUSAR
ARSHIYA KDUSAR
Dy TM - Chemical
Govt Analyst/Authorised Signatory

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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 : 05.10.2026							
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	September, 2026						
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							

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

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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 : September, 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.	6	9	30	16	6	9	25	13	6	9	25	15
10%	7	9	34	17	7	9	27	14	7	9	28	16
25%	7	9	36	20	8	10	31	17	7	9	33	17
50%	10	12	39	21	9	11	37	21	8	10	36	19
75%	10	12	43	24	10	12	41	23	8	10	40	21
98%	13	15	48	27	12	14	48	25	9	11	43	25
Max.	13	15	48	27	12	14	48	25	9	11	43	25
Avg.	9	11	39	21	9	11	36	20	8	10	36	19
SD	2	2	6	4	2	2	8	4	1	1	6	3
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.	6	9	26	15	6	9	27	14				
10%	6	9	28	16	6	9	30	15				
25%	8	9	34	16	7	10	36	17				
50%	8	10	39	18	9	11	40	21				
75%	9	11	43	22	10	12	43	24				
98%	10	13	47	26	11	13	47	26				
Max.	10	13	47	26	11	13	48	26				
Avg.	8	10	38	19	9	11	39	21				
SD	2	1	7	4	2	1	7	5				
No. of obs	8				8							

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



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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	: 05.09.2026
Date of sample receipt	: 06.09.2026
Report No	: M004126092
Issue Date	: 05.10.2026
Ref	: Environmental (P) Rules, 1986 SCHEDULE VI

Sl. No.	Sample Code	W1	Standards For Effluent Discharge of Environmental Pollutants	Method of Testing
	Parameters	Results		
1	Colour (Hazen Units), & Odour	15	--	IS:3025 (part-4)
2	Suspended Solids (mg/l), Max	23	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	5.94	5.5 to 9.0	IS 3025 (P-11) 2022
5	Temperature ° C	26.9	Shall not exceed 5° C above the receiving water temp	IS 3025 (Part 9) 2023
6	Oil & Grease (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	38.4	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	2.30	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



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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		: 05.09.2026		
Date of sample receipt		: 06.09.2026		
Issue Date		: 05.10.2026		
Ref		: Environmental (P) Rules, 1986 SCHEDULE VI		
Report No		-	MD04226092	Standards For Effluent Discharge of Environmental Pollutants
Sample code		W2	W3	
Sl. No.	Parameters	Results		Method of Testing
1	Colour (Hazen Units), & Odour	10		IS:3025 (part-4)
2	Suspended Solids (mg/l), Max	<5		IS 3025 (P-17) 2022
3	Particle size of suspended solids	Pass through 850 micron	Shell Pass through 850 micron	APHA 23rd edition
4	pH	5.87		IS 3025 (P-11) 2022
5	Temperature °C	27.3	Shall not exceed 5°C above the receiving water temp	IS 3025 (Part 9) 2023
6	Oil & Grease (mg/l), Max	<4.0		IS 3025 (P-39) 2021
7	Total Residual Chlorine (mg/l), Max	<0.1		IS 3025 (P-26) 2021
8	Ammonical Nitrogen (mg/l), Max	<0.1		IS 3025 (P-34 Sec 1) 2023
9	Total Kjeldahl Nitrogen (mg/l), Max	<0.1		IS 3025 (P-34 Sec 1) 2023
10	Free Ammonia as NH ₃ (mg/l), Max	<0.01		IS 3025 (P-34 Sec 1) 2023
11	BOD [3 days at 27°C] (mg/l), Max	<3		IS 3025 (Part 44) 2023
12	COD (mg/l), Max	9.6		IS 3025 (Part 58) 2023
13	Arsenic as As (mg/l), Max	<0.05		APHA 24th Ed Method No.3030K
14	Mercury as Hg (mg/l), Max	<0.001		APHA 24th Ed. Method No.3030K
15	Lead as Pb (mg/l), Max	<0.05		APHA 24th Ed. Method No.3030K
16	Cadmium as Cd (mg/l), Max	<0.01		APHA 24th Ed. Method No.3030K
17	Hexavalent Chromium as Cr ⁶⁺ (mg/l), Max	<0.03		IS 3025 (P-52) 2014
18	Total Chromium as Cr (mg/l), Max	<0.01		APHA 24th Ed. Method No.3030K
19	Copper as Cu (mg/l), Max	<0.05		APHA 24th Ed. Method No.3030K
20	Zinc as Zn (mg/l), Max	<0.05		APHA 24th Ed Method No.3030K
21	Selenium as Se (mg/l), Max	<0.1		APHA 24th Ed. Method No.3030K
22	Nickel as Ni (mg/l), Max	<0.05		APHA 24th Ed. Method No.3030K
23	Cyanide as CN (mg/l), Max	<0.01		IS 3025 (P-27) Sec 1 2021
24	Fluoride as F (mg/l), Max	<0.1		APHA 24th Edition 4500F
25	Dissolved Phosphates as PO ₄ (mg/l), Max	<0.1		IS 3025 (P-31) Sec 1 2022
26	Sulphide as S (mg/l), Max	<0.01		IS 3025 (P-29) 2022
27	Phenolic Compounds as C ₆ H ₅ OH (mg/l), Max	<0.001		IS 3025 (P-43) Sec 1 2022
28	Manganese as Mn (mg/l), Max	<0.01		APHA 24th Ed. Method No.3030K
29	Iron as Fe (mg/l), Max	<0.05		APHA 24th Ed. Method No.3030K
30	Vanadium as V (mg/l), Max	<0.01		APHA 24th Ed. Method No.3030K
31	Nitrate Nitrogen (mg/l), Max	1.47		IS 3025 (P-64) 2012

END OF REPORT

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



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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	: 05.09.2026
Date of sample receipt	: 06.09.2026
Issue Date	: 05.10.2026
Ref : IS : 2296 Water Quality Standards	

Sl. No.	Report No	M004626092	M004726092	M004826092	Limits	Method of Testing
	Sample Code	SW1	SW2	SW3		
	Parameters	Results				
1	Colour (Hazen Units)	10	10	15	300	IS 3025 (Part 4) 2021
2	pH	6.64	6.57	6.55	6.5 to 8.5	IS 3025 (Part 11) 2022
3	Dissolved Oxygen (as O ₂), mg/l	5.50	5.70	5.40	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)	38	140	70	5000	IS 15185 2016 RA 2021
6	Total Dissolved Solids, (mg/l)	185	343	277	1500	IS 3025 (Part 16) 2023
7	Chloride (as Cl),mg/l	55.00	138.00	150.00	600	IS 3025 (Part 32) 1988 RA 2019
8	Sulphates as SO ₄ (mg/l)	37.00	82.00	25.33	400	APHA (24th Edition) 4110B
9	Nitrates (as NO ₃),mg/l	0.19	0.44	0.28	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


BINU MANI
TM - Microbiology
Govt Analyst/Authorised Signatory


ARSHIYA KUSAR
Dy TM - Chemical
Govt Analyst/Authorised Signatory

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

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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		: 05.09.2026		
Date of sample receipt		: 06.09.2026		
Report no		: M004326092		
Issue Date		: 05.10.2026		
Ref		:Schedule -1 SI.No-2 of CTO		
Sample code		STP1	Standards	Method of Testing
Sl. No.	Parameters	Results		
1	pH	6.79	-	IS 3025 (P-11) 2022
2	Biochemical Oxygen Demand BOD ₅ 27 ^o C, mg/l	10	<30	IS 3025 (Part 44) 2023
3	Total Suspended Solids, at 105 ^o C, mg/l	28	<50	IS 3025 (P-17) 2022
4	Chemical Oxygen Demand (COD) (mg/l)	48	<100	IS 3025 (Part 58) 2023

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

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