

# **ENVIRONMENTAL MONITORING REPORT**

**August, 2024**

**PROJECT: REDI IRON ORE MINE (Block -1)**  
village Redi, Vengurla taluka, Sindhudurg district,  
Maharashtra State.

**Lessee: M/S. GOGTE MINERALS**  
**BELAGAVI**  
**KARNATAKA**

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

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# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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## TEST REPORT

Table No. 1

### AMBIENT AIR QUALITY

Name of the Client	: M/s. Gogte Minerals
Name of the Project	: Redi Iron Ore Mine (203)
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Station at & Code	: A1 - Core Zone Near Mine Office
Duration	: 24 Hrs
Issue Date	: 05.09.2024
Reference	IS 5182 & Lab SOP

Date of Sampling	Lab Code	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>
09.08.2024	N/24/08/3-0154	9	11	46	27	<20	<1
10.08.2024	N/24/08/3-0236	7	9	31	22	<20	<1
16.08.2024	N/24/08/4-0170	13	17	40	22	<20	<1
17.08.2024	N/24/08/4-0238	7	9	49	30	<20	<1
19.08.2024	N/24/08/4-0294	8	11	50	26	<20	<1
20.08.2024	N/24/08/4-0330	9	12	50	38	<20	<1
26.08.2024	N/24/08/5-0122	9	10	40	33	<20	<1
27.08.2024	N/24/08/5-0167	5	9	42	24	<20	<1
<b>Limits for Industrial , Residential, Rural and other Areas</b>		<b>80</b> 24 Hrs	<b>80</b> 24 Hrs	<b>100</b> 24 Hrs	<b>60</b> 24 Hrs	<b>400</b> 24 Hrs	<b>5</b> Annual

Date of Sampling	Lab Code	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>
09.08.2024	N/24/08/3-0154	0.15	<0.1	<0.5	<0.5	0.24	22
10.08.2024	N/24/08/3-0236	0.17	<0.1	<0.5	<0.5	0.30	22
16.08.2024	N/24/08/4-0170	0.12	<0.1	<0.5	<0.5	0.28	28
17.08.2024	N/24/08/4-0238	0.20	<0.1	<0.5	<0.5	0.25	21
19.08.2024	N/24/08/4-0294	0.13	<0.1	<0.5	<0.5	0.30	22
20.08.2024	N/24/08/4-0330	0.28	<0.1	<0.5	<0.5	0.26	20
26.08.2024	N/24/08/5-0122	0.12	<0.1	<0.5	<0.5	0.21	20
27.08.2024	N/24/08/5-0167	0.17	<0.1	<0.5	<0.5	0.30	25
<b>Limits for Industrial , Residential, Rural and other Areas</b>		<b>1.0</b> 24 Hrs	<b>20</b> Annual	<b>6</b> Annual	<b>1</b> Annual	<b>4</b> 1 Hr	<b>180</b> 1 Hr

Note : \* Parameters monitored for period of 1 hr

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

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## TEST REPORT

Table No. 2

### AMBIENT AIR QUALITY

Name of the Client	: M/s. Gogte Minerals
Name of the Project	: Redi Iron Ore Mine (203)
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Station at & Code	: A2 - Redi village
Duration	: 24 Hrs
Issue Date	: 05.09.2024
Reference	IS 5182 & Lab SOP

Date of Sampling	Lab Code	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>
09.08.2024	N/24/08/3-0155	10	10	40	25	<20	<1
10.08.2024	N/24/08/3-0237	9	13	51	32	<20	<1
16.08.2024	N/24/08/4-0171	11	12	53	33	<20	<1
17.08.2024	N/24/08/4-0239	10	11	30	18	<20	<1
19.08.2024	N/24/08/4-0295	7	9	46	24	<20	<1
20.08.2024	N/24/08/4-0331	5	9	33	16	<20	<1
26.08.2024	N/24/08/5-0123	10	12	46	26	<20	<1
27.08.2024	N/24/08/5-0168	10	12	36	26	<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	Lab Code	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>
09.08.2024	N/24/08/3-0155	0.11	<0.1	<0.5	<0.5	0.24	23
10.08.2024	N/24/08/3-0237	0.18	<0.1	<0.5	<0.5	0.22	23
16.08.2024	N/24/08/4-0171	0.13	<0.1	<0.5	<0.5	0.21	24
17.08.2024	N/24/08/4-0239	0.18	<0.1	<0.5	<0.5	0.33	23
19.08.2024	N/24/08/4-0295	0.15	<0.1	<0.5	<0.5	0.28	<20
20.08.2024	N/24/08/4-0331	0.16	<0.1	<0.5	<0.5	0.31	25
26.08.2024	N/24/08/5-0123	0.12	<0.1	<0.5	<0.5	0.20	21
27.08.2024	N/24/08/5-0168	0.11	<0.1	<0.5	<0.5	0.31	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. 3

### AMBIENT AIR QUALITY

Name of the Client	: M/s. Gogte Minerals
Name of the Project	: Redi Iron Ore Mine (203)
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Station at & Code	: A3 - Shiroda village
Duration	: 24 Hrs
Issue Date	: 05.09.2024
Reference	IS 5182 & Lab SOP

Date of Sampling	Lab Code	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>
09.08.2024	N/24/08/3-0156	9	11	33	20	<20	<1
10.08.2024	N/24/08/3-0238	9	11	38	24	<20	<1
16.08.2024	N/24/08/4-0172	7	11	42	24	<20	<1
17.08.2024	N/24/08/4-0240	5	12	38	25	<20	<1
19.08.2024	N/24/08/4-0296	4	9	49	26	<20	<1
20.08.2024	N/24/08/4-0332	10	13	41	30	<20	<1
26.08.2024	N/24/08/5-0124	11	13	39	20	<20	<1
27.08.2024	N/24/08/5-0169	9	11	37	23	<20	<1
<b>Limits for Industrial , Residential, Rural and other Areas</b>		<b>80</b> 24 Hrs	<b>80</b> 24 Hrs	<b>100</b> 24 Hrs	<b>60</b> 24 Hrs	<b>400</b> 24 Hrs	<b>5</b> Annual

Date of Sampling	Lab Code	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>
09.08.2024	N/24/08/3-0156	0.13	<0.1	<0.5	<0.5	0.22	22
10.08.2024	N/24/08/3-0238	0.11	<0.1	<0.5	<0.5	0.31	21
16.08.2024	N/24/08/4-0172	0.15	<0.1	<0.5	<0.5	0.20	23
17.08.2024	N/24/08/4-0240	0.18	<0.1	<0.5	<0.5	0.22	25
19.08.2024	N/24/08/4-0296	<0.1	<0.1	<0.5	<0.5	<0.2	<20
20.08.2024	N/24/08/4-0332	0.16	<0.1	<0.5	<0.5	<0.2	23
26.08.2024	N/24/08/5-0124	0.11	<0.1	<0.5	<0.5	0.22	23
27.08.2024	N/24/08/5-0169	0.15	<0.1	<0.5	<0.5	0.22	26
<b>Limits for Industrial , Residential, Rural and other Areas</b>		<b>1.0</b> 24 Hrs	<b>20</b> Annual	<b>6</b> Annual	<b>1</b> Annual	<b>4</b> 1 Hr	<b>180</b> 1 Hr

Note : \* Parameters monitored for period of 1 hr

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## TEST REPORT

Table No. 4

### AMBIENT AIR QUALITY

Name of the Client : M/s. Gogte Minerals  
 Name of the Project : Redi Iron Ore Mine (203)  
 Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services)  
 Station at & Code : A4 - Gaontala village  
 Duration : 24 Hrs  
 Issue Date : 05.09.2024  
 Reference IS 5182 & Lab SOP

Date of Sampling	Lab Code	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>
09.08.2024	N/24/08/3-0157	11	15	46	25	<20	<1
10.08.2024	N/24/08/3-0239	10	11	48	27	<20	<1
16.08.2024	N/24/08/4-0173	9	11	33	22	<20	<1
17.08.2024	N/24/08/4-0241	8	<9	46	37	<20	<1
19.08.2024	N/24/08/4-0297	11	14	44	23	<20	<1
20.08.2024	N/24/08/4-0333	6	9	51	28	<20	<1
26.08.2024	N/24/08/5-0125	9	10	30	20	<20	<1
27.08.2024	N/24/08/5-0170	10	9	29	17	<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	Lab Code	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>
09.08.2024	N/24/08/3-0157	0.13	<0.1	<0.5	<0.5	0.26	25
10.08.2024	N/24/08/3-0239	0.17	<0.1	<0.5	<0.5	0.28	23
16.08.2024	N/24/08/4-0173	0.16	<0.1	<0.5	<0.5	0.28	25
17.08.2024	N/24/08/4-0241	0.27	<0.1	<0.5	<0.5	0.22	30
19.08.2024	N/24/08/4-0297	0.20	<0.1	<0.5	<0.5	0.26	20
20.08.2024	N/24/08/4-0333	0.18	<0.1	<0.5	<0.5	0.33	25
26.08.2024	N/24/08/5-0125	<0.1	<0.1	<0.5	<0.5	0.20	25
27.08.2024	N/24/08/5-0170	0.11	<0.1	<0.5	<0.5	0.27	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. Gogte Minerals
Name of the Project	: Redi Iron Ore Mine (203)
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Station at & Code	: A5 - Kanyalwadi village
Duration	: 24 Hrs
Issue Date	: 05.09.2024
Reference	IS 5182 & Lab SOP

Date of Sampling	Lab Code	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>
09.08.2024	N/24/08/3-0158	7	10	42	27	<20	<1
10.08.2024	N/24/08/3-0240	9	13	38	18	<20	<1
16.08.2024	N/24/08/4-0174	10	10	41	28	<20	<1
17.08.2024	N/24/08/4-0242	5	10	35	22	<20	<1
19.08.2024	N/24/08/4-0298	5	10	40	22	<20	<1
20.08.2024	N/24/08/4-0334	11	10	44	25	<20	<1
26.08.2024	N/24/08/5-0126	10	12	35	19	<20	<1
27.08.2024	N/24/08/5-0171	8	9	30	16	<20	<1
<b>Limits for Industrial , Residential, Rural and other Areas</b>		<b>80</b> 24 Hrs	<b>80</b> 24 Hrs	<b>100</b> 24 Hrs	<b>60</b> 24 Hrs	<b>400</b> 24 Hrs	<b>5</b> Annual

Date of Sampling	Lab Code	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>
09.08.2024	N/24/08/3-0158	0.20	<0.1	<0.5	<0.5	0.23	26
10.08.2024	N/24/08/3-0240	0.13	<0.1	<0.5	<0.5	0.23	20
16.08.2024	N/24/08/4-0174	0.13	<0.1	<0.5	<0.5	0.31	30
17.08.2024	N/24/08/4-0242	<0.1	<0.1	<0.5	<0.5	0.23	23
19.08.2024	N/24/08/4-0298	0.18	<0.1	<0.5	<0.5	<0.2	20
20.08.2024	N/24/08/4-0334	0.12	<0.1	<0.5	<0.5	0.25	20
26.08.2024	N/24/08/5-0126	0.13	<0.1	<0.5	<0.5	0.33	20
27.08.2024	N/24/08/5-0171	0.18	<0.1	<0.5	<0.5	0.25	24
<b>Limits for Industrial , Residential, Rural and other Areas</b>		<b>1.0</b> 24 Hrs	<b>20</b> Annual	<b>6</b> Annual	<b>1</b> Annual	<b>4</b> 1 Hr	<b>180</b> 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. Gogte Minerals					
Name of the Project : Redi Iron Ore Mine (203)					
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services)					
Station at & Code : A6 - Near NIMCO Gate - Tivrewadi, Redi village					
Duration : 24 Hrs					
Issue Date : 05.09.2024					
Reference IS 5182 & Lab SOP					
Date of Sampling	Lab Code	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> )
09.08.2024	N/24/08/3-0159	9	12	31	15
10.08.2024	N/24/08/3-0241	10	11	46	22
16.08.2024	N/24/08/4-0175	13	14	54	26
17.08.2024	N/24/08/4-0243	8	14	51	21
19.08.2024	N/24/08/4-0299	12	16	52	26
20.08.2024	N/24/08/4-0335	8	15	47	25
26.08.2024	N/24/08/5-0127	10	11	50	27
27.08.2024	N/24/08/5-0172	9	12	28	18
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. Gogte Minerals					
Name of the Project : Redi Iron Ore Mine (203)					
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services)					
Station at & Code : A7 - Near Primary School - sakalbhatwadi Redi village					
Duration : 24 Hrs					
Issue Date : 05.09.2024					
Reference IS 5182 & Lab SOP					
Date of Sampling	Lab Code	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> )
09.08.2024	N/24/08/3-0160	6	9	28	18
10.08.2024	N/24/08/3-0242	5	<9	27	15
16.08.2024	N/24/08/4-0176	10	11	49	27
17.08.2024	N/24/08/4-0244	10	12	35	22
19.08.2024	N/24/08/4-0300	6	9	45	23
20.08.2024	N/24/08/4-0336	7	10	33	18
26.08.2024	N/24/08/5-0128	<4	9	30	16
27.08.2024	N/24/08/5-0173	9	11	25	16
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. 8

### STATISTICAL AIR QUALITY DATA

Name of the : M/s. Gogte Minerals													
Name of the : Redi Iron Ore Mine (203)													
Month : August, 2024													
Station Code : A4 - Core Zone (ML Area, behind the Mines Office)				Station Code : A5 - Redi village				Station Code : A6 - 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>	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	
Min.	5	9	31	22	5	9	30	16	4	9	33	20	
10%	6	9	37	22	6	9	32	17	5	10	36	20	
25%	7	9	40	24	9	10	35	23	7	11	38	22	
50%	9	11	44	27	10	12	43	26	9	11	39	24	
75%	9	11	49	31	10	12	47	28	9	12	41	25	
98%	12	16	50	37	11	13	53	33	11	13	48	29	
Max.	13	17	50	38	11	13	53	33	11	13	49	30	
Avg.	8	11	44	28	9	11	42	25	8	11	40	24	
SD	2	3	7	6	2	2	8	6	2	1	5	3	
No. of obs	8				8				8				
Station Code : A7 - Gaontala village				Station Code : A8 - Kanyalwadi 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.	6	<9	29	17	5	9	30	16					
10%	7	9	30	19	5	10	34	17					
25%	9	10	32	22	7	10	35	19					
50%	10	11	45	24	9	10	39	22					
75%	10	13	47	27	10	11	41	26					
98%	11	15	51	36	11	13	44	28					
Max.	11	15	51	37	11	13	44	28					
Avg.	9	11	41	25	8	11	38	22					
SD	2	2	9	6	2	1	5	4					
No. of obs	8				8								

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## TEST REPORT

Table No. 9.

Report No: N019524084

Name of the Client	: M/s. Gogte Minerals			
Name of the Project	: Redi Iron Ore Mine (203), village Redi, Vengurla taluka, Sindhudurg dist, Maharashtra State.			
Particulars of sample collected	: SW1 - Pit water			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)			
Date of sample collection	: 16.08.2024			
Lab Code	: N/24/08/4-0195			
Issue Date	: 22.08.2024			
Ref	: Environmental (P) Rules, 1986 SCHEDULE VI			
Sl. No.	Parameters	Results	General Standards For Effluent Discharge of Environmental Pollutants	Method of Testing
1	Colour (Hazen Units), & Odour	5	--	IS:3025(part-4) and IS 3025 (Part-5)
2	Suspended Solids (mg/l), Max	8	100	IS 3025 (P-17) 2022
3	Particle size of suspended solids	Pass through 850 micron	Shall Pass through 850 micron	AOHA 23rd edition
4	pH	5.95	5.5 to 9.0	IS 3025 (P-11) 2022
5	Temperature ° C	28	Shall not exceed 5° C above the receiving water temp	IS 3025 (P-9) 1984 RA2022
6	Oil & Grease (mg/l), Max	<1.0	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) 1988 RA 2019
9	Total Kjeldahl Nitrogen (mg/l), Max	<0.1	100	IS 3025 (P-34) 1988 RA 2019
10	Free Ammonia as NH <sub>3</sub> (mg/l), Max	<0.1	5.0	IS 3025 (P-34) 1988 RA 2019
11	BOD [3 days at 27°C] (mg/l), Max	3.46	30	IS 3025 (P-44) 2014
12	COD (mg/l), Max	24	250	IS 3025 (P-58) 2006 RA2022
13	Arsenic as As (mg/l), Max	<0.01	0.2	APHA 3030K
14	Mercury as Hg (mg/l), Max	<0.001	0.01	APHA 3030K
15	Lead as Pb (mg/l), Max	<0.01	0.1	APHA 3030K
16	Cadmium as Cd (mg/l), Max	<0.01	2.0	APHA 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 3030K
19	Copper as Cu (mg/l), Max	<0.05	3.0	APHA 3030K
20	Zinc as Zn (mg/l), Max	<0.05	5.0	APHA 3030K
21	Selenium as Se (mg/l), Max	<0.05	0.05	APHA 3030K
22	Nickel as Ni (mg/l), Max	<0.05	3.0	APHA 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	0.48	2.0	APHA 23rd Edition 4500F
25	Dissolved Phosphates as PO <sub>4</sub> (mg/l), Max	<0.05	5.0	IS 2488 (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	Radio Active materials			
	a) Alpha Emitters (µcurie/ml), Max	NA	10 <sup>-7</sup>	APHA 21 <sup>st</sup>
	b) Beta Emitters (µcurie/ml), Max	NA	10 <sup>-6</sup>	APHA 21 <sup>st</sup>
29	Bio-assay test	NA	90% survival of fish after 96 hrs in 100% effluent	IS 6582 (Part-1)
30	Manganese as Mn (mg/l), Max	<0.01	2	APHA 3030K
31	Iron as Fe (mg/l), Max	<0.05	3	APHA 3030K
32	Vanadium as V (mg/l), Max	<0.01	0.2	APHA 3030K
33	Nitrate Nitrogen (mg/l), Max	<0.1	10	IS 3025 (P-34) 1988 RA 2019
34	Fixed Dissolved Solids (FDS) mg/l	2800	--	IS 3025(P-18) 2022
35	Chlorides (as Cl), mg/l	700	--	IS 3025 (P-32) 1988 RA2019

""END OF REPORT""

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## TEST REPORT

Table No. 10

Report No: N025124073

Name of the Client	: M/s. Gogte Minerals			
Name of the Project	: Redi Iron Ore Mine (203), village Redi, Vengurla taluka, Sindhudurg dist, Maharashtra State.			
Particulars of sample collected	: AD1 - Runoff water			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)			
Date of sample collection	: 16.08.2024			
Lab Code	: N/24/08/4-0196			
Issue Date	: 22.08.2024			
Ref	: Environmental (P) Rules, 1986 SCHEDULE VI			
Sl. No.	Parameters	Results	General Standards For Effluent Discharge of Environmental Pollutants	Method of Testing
1	Colour (Hazen Units), & Odour	10	--	IS:3025(part-4) and IS 3025 (Part-5)
2	Suspended Solids (mg/l), Max	56	100	IS 3025 (P-17) 2022
3	Particle size of suspended solids	Pass through 850 micron	Shall Pass through 850 micron	AOHA 23rd edition
4	pH	6.81	5.5 to 9.0	IS 3025 (P-11) 2022
5	Temperature ° C	28	Shall not exceed 5° C above the receiving water temp	IS 3025 (P-9) 1984 RA2022
6	Oil & Grease (mg/l), Max	<1.0	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) 1988 RA 2019
9	Total Kjeldahl Nitrogen (mg/l), Max	<0.1	100	IS 3025 (P-34) 1988 RA 2019
10	Free Ammonia as NH <sub>3</sub> (mg/l), Max	<0.1	5.0	IS 3025 (P-34) 1988 RA 2019
11	BOD [3 days at 27°C] (mg/l), Max	4.4	30	IS 3025 (P-44) 2014
12	COD (mg/l), Max	64	250	IS 3025 (P-58) 2006 RA2022
13	Arsenic as As (mg/l), Max	<0.01	0.2	APHA 3030K
14	Mercury as Hg (mg/l), Max	<0.001	0.01	APHA 3030K
15	Lead as Pb (mg/l), Max	<0.01	0.1	APHA 3030K
16	Cadmium as Cd (mg/l), Max	<0.01	2.0	APHA 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 3030K
19	Copper as Cu (mg/l), Max	<0.05	3.0	APHA 3030K
20	Zinc as Zn (mg/l), Max	<0.05	5.0	APHA 3030K
21	Selenium as Se (mg/l), Max	<0.05	0.05	APHA 3030K
22	Nickel as Ni (mg/l), Max	<0.05	3.0	APHA 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	0.3	2.0	APHA 23rd Edition 4500F
25	Dissolved Phosphates as PO <sub>4</sub> (mg/l), Max	<0.05	5.0	IS 2488 (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	Radio Active materials			
	a) Alpha Emitters (µcurie/ml), Max	NA	10 <sup>-7</sup>	APHA 21 <sup>st</sup>
	b) Beta Emitters (µcurie/ml), Max	NA	10 <sup>-6</sup>	APHA 21 <sup>st</sup>
29	Bio-assay test	NA	90% survival of fish after 96 hrs in 100% effluent)	IS 6582 (Part-1)
30	Manganese as Mn (mg/l), Max	<0.01	2	APHA 3030K
31	Iron as Fe (mg/l), Max	<0.05	3	APHA 3030K
32	Vanadium as V (mg/l), Max	<0.01	0.2	APHA 3030K
33	Nitrate Nitrogen (mg/l), Max	<0.1	10	IS 3025 (P-34) 1988 RA 2019
34	Fixed Dissolved Solids (FDS) mg/l	496	--	IS 3025(P-18) 2022
35	Chlorides (as Cl), mg/l	122.5	--	IS 3025 (P-32) 1988 RA2019

\*\*\*"END OF REPORT"\*\*\*

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## TEST REPORT

Table No. 11

Name of the Client	: M/s. Gogte Minerals
Name of the Project	: Redi Iron Ore Mine (203), village Redi, Vengurla taluka, Sindhudurg dist, MH State.
Particulars of sample collected	: SW2 - Kanyal tank water, SW3 - Nallah water Near Kanyalwadi SW4- Near Hanuman temple Kanyalwadi village
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Date of sample collection	: 16.08.2024
Issue Date	: 22.08.2024
Ref:IS : 2296, 1982 Class C Norms (Stream Water Standards)	

Sl. No.	Lab Code	N/24/08/4-0197	N/24/08/4-0198	N/24/08/4-0199	Limits For Stream Water Standards	Method of Testing
	Sample Code	SW2	SW3	SW4		
	Parameters	Results				
1	Colour (Hazen Units), Max	3	5	5	300	IS:3025(Part-4)2021
2	pH	6.82	6.60	6.81	6.5 to 8.5	IS:3025(Part-11)2022
3	Dissolved Oxygen (as O <sub>2</sub> ), mg/l	5.3	5.2	5.6	Min 4	IS:3025(Part-38)1989RA 2019
4	Oil and grease, mg/l, Max	<0.1	<0.1	<0.1	0.1	IS:3025(Part-39) 2021
5	Total Dissolved Solids (mg/l), Max	346	360	135	1500	IS:3025(Part-16)2023
6	Nitrates (as NO <sub>3</sub> ),mg/l, Max	16.0	14.0	2.8	50	IS:3025(Part-34)1988 RA 2019
7	Anionic detergents (as MBAS),mg/l, Max	<0.1	<0.1	<0.1	1.0	IS:3025(Part-68)
8	Copper (as Cu),mg/l, Max	<0.005	<0.005	<0.005	1.5	IS:3025(Part-42) 2019
9	Chloride (as Cl),mg/l, Max	170.0	140.0	170.0	600	IS:3025(Part-32) ;1988RA2019
10	Fluoride (as F),mg/l, Max	0.65	0.58	0.24	1.5	APHA 23rd Edition 4500F
11	Iron (as Fe),mg/l, Max	<0.005	<0.005	<0.005	50	IS:3025(P-2) 2019
12	Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH),mg/l, Max	<0.001	<0.001	<0.001	0.005	IS:3025(P-43)Sec 1 2022
13	Selenium (as Se), mg/l, Max	<0.005	<0.005	<0.005	0.05	IS:3025(P-2) 2019
14	Sulphates (as SO <sub>4</sub> ),mg/l, Max	50.0	86.1	45.0	400	IS:3025(P-24)Sec 1 2022
15	Zinc (as Zn),mg/l, Max	<0.005	<0.005	<0.005	15	IS:3025(P-2) 2019
16	Cadmium (as Cd), mg/l, Max	<0.001	<0.001	<0.001	0.01	IS:3025(P-2) 2019
17	Cyanides (as CN), mg/l, Max	<0.01	<0.01	<0.01	0.05	IS:3025(P-27) Sec 12021
18	Lead (as Pb) mg/l, Max	<0.005	<0.005	<0.005	0.1	IS:3025(P-2) 2019
19	Total Arsenic as As (mg/l), Max	<0.002	<0.002	<0.002	0.2	IS:3025(P-2) 2019
20	Chromium (as Cr <sup>+6</sup> ), mg/l, Max	<0.03	<0.03	<0.03	0.05	IS:3025(P-52) 2014
21	Biochemical Oxygen Demand (as O <sub>2</sub> ), mg/l	<3	<3	<3	3	IS:3025(P-44) 2014
22	Total Coliform, MPN/100ml, Max	630	650	250	5000	IS:1622:1981

"END OF REPORT"

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Gazette Notification No. legal 42(3)/2022 dated 22.07.2022 Recognition valid upto 23.05.2023  
ISO 45001:2018 Certified Laboratory



## TEST REPORT

Table No. 12  
Report No : N020024084

Name of the Client	: M/s. Gogte Minerals			
Name of the Project	: Redi Iron Ore Mine (203), village Redi, Vengurla taluka, Sindhudurg dist, Maharashtra State.			
Particulars of sample collected	: Sewage Water Sample			
Date of sample collection	: 16.08.2024			
Lab Code	: N/24/08/4-0200			
Issue Date	: 22.08.2024			
Ref	: Environmental (P) Rules, 1986 SCHEDULE VI			
Sl. No.	Parameters	Results	General Standards For Effluent Discharge of Environmental Pollutants	Method of Testing
1	pH	7.31	6.5 -9.0	AOHA (23 <sup>rd</sup> Edition) 4500H* - B
2	Biochemical Oxygen Demand BOD <sub>5</sub> 27 <sup>o</sup> C, mg/l	36	<30	IS 3025 (P-44) 1993
3	Total Suspended Solids, at 105 <sup>o</sup> C, mg/l	98	<100	AOHA (23 <sup>rd</sup> Edition) 2540 - D
4	Fecal Coliform (FC), MPN/100ml	120	<1000	AOHA (23 <sup>rd</sup> Edition) 5520 - B



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