

The Sandur Manganese & Iron Ores Limited

(An ISO 9001:2015; ISO 14001:2015 and 45001:2018 certified company)
CIN: L85110KA1954PLC000759; Website: www.sandurgroup.com

REGISTERED OFFICE

'SATYALAYA', No.266
Ward No.1, Palace Road
Sandur - 583 119, Ballari District
Karnataka, India
Tel: +91 8395 260301/ 283173-199
Fax: +91 8395 260473



CORPORATE OFFICE

'SANDUR HOUSE', No.9
Bellary Road, Sadashivanagar
Bengaluru - 560 080
Karnataka, India
Tel: +91 80 4152 0176 - 79 / 4547 3000
Fax: +91 80 4152 0182

Ref No: SMIORE/PLANT/ENV/MR/2024-25/055

8th October 2024

To,

The Environmental Officer,
Regional Office & Zonal office
Karnataka State Pollution Control Board
Sri Sai Sharan plaza, No. 71/A, 2nd floor,
Dam road, Hosapete- 583203, Vijayanagar District.

Subject: Submission of monthly environmental monitoring report for the month of **September-2024**.

Reference: 1) CFO No. AW-329576 PCB ID 29470 Dated 02.02.2022
2) Amended CFO No. AW-335581 PCB ID 29470 Dated 17.01.2023

Dear Sir,

With reference to the subject cited above, please find here with Environmental Monitoring reports of M/s The Sandur Manganese & Iron Ores Limited, Vyasankere, Hanumanahalli Post, 583222, Hosapete Taluk, Vijayanagara District., for the Period September-2024 for your kind perusal.

Kindly acknowledge receipt of the same.

Thanking you,

For The Sandur Manganese & Iron Ores Limited,

Parvatareddy Patil
Senior General Manager-Plant



ಸ್ವೀಕೃತಿ
ಕ.ರಾ.ಮಾ.ನಿ. ಮಂಡಳಿ
ಪ್ರಾದೇಶಿಕ ಕಛೇರಿ ವಿಜಯನಗರ ಜೊಸಪೇಟೆ
ಸಂಖ್ಯೆ/ದಿನಾಂಕ: 9-10-24 ಸಹಿ Muni

Encl: Environmental Monitoring Report September -2024

MINES OFFICE: Deogiri - 583112, Sandur Taluk, Ballari District
Tel: +91 8395 271025 / 28 / 29 / 40; Fax: +91 8395 271066

PLANT OFFICE: Metal & Ferroalloy Plant, Vyasankere, Mariyammanahalli - 583 222, Hosapete Taluk, Vijayanagara District
Tel: +91 8394 244450 / 244335

ENVIRONMENTAL MONITORING REPORT

September, 2024

Project : The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village,
Hospet Taluk,

ENVIRONMENTAL LABORATORY

(Unit of Mineral Engineering Services)

(Accredited by NABL &, MOEF&CC Under E(P) 1986)

#948, 2nd Cross, Kammanahalli Main Road,

St Thomas Town Post, Bangalore- 560 084, Karnataka,

LIST OF TABLES

SL. NO.	PARTICULARS	TABLE NO.
1	Test Report of Ambient Air Quality	1 to 4
2	Test Report of Fugitive Emission	5 to 8
3	Stack Monitoring Report	9 to 13
4	Ambient Noise Level Data	14
5	DG Set Noise Level Data	15
6	Water Test Report As per IS 10500	16 to 19



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 23.05.2025

TEST REPORT

AMBIENT AIR QUALITY

Table No. 1

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

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

Station at & Code : A1, Near Existing AAQMS 01 (SMIORE Schools)

Instrument Used : Envirotech APM 460BL Serial No. 2914-DTJ-2020
Envirotech APM -550, Serial No. 520-DTG-2017

Calibration due date of instrument : 24.03.2025

Duration : 24 Hrs

Issue date : 01.10.2024

Reference IS 5182 & Lab SOP

Date of Sampling	Lab Code	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
04.09.2024	N/24/09/3-0077	8	13	52	29	<20	<1
05.09.2024	N/24/09/3-0168	11	14	49	27	<20	<1
09.09.2024	N/24/09/4-0037	6	9	55	28	<20	<1
10.09.2024	N/24/09/4-0079	8	11	48	25	<20	<1
20.09.2024	N/24/09/5-0189	10	13	50	27	<20	<1
21.09.2024	N/24/09/5-0237	9	11	43	24	<20	<1
23.09.2024	N/24/09/6-0045	10	13	55	32	<20	<1
24.09.2024	N/24/09/6-0097	8	10	39	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 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
04.09.2024	N/24/09/3-0077	<0.1	<0.1	<0.5	<0.5	0.23	23
05.09.2024	N/24/09/3-0168	0.11	<0.1	<0.5	<0.5	0.23	<20
09.09.2024	N/24/09/4-0037	0.10	<0.1	<0.5	<0.5	0.21	21
10.09.2024	N/24/09/4-0079	0.15	<0.1	<0.5	<0.5	0.36	24
20.09.2024	N/24/09/5-0189	0.18	<0.1	<0.5	<0.5	0.23	25
21.09.2024	N/24/09/5-0237	0.27	<0.1	<0.5	<0.5	0.35	23
23.09.2024	N/24/09/6-0045	0.11	<0.1	<0.5	<0.5	0.28	25
24.09.2024	N/24/09/6-0097	0.16	<0.1	<0.5	<0.5	0.22	30
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

M. SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

AMBIENT AIR QUALITY

Table No. 2

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant),

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

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

Station at & Code : A2, Existing Water Reservoir (Near WTP Plant)

Instrument Used : Envirotech APM 460BL Serial No. 2913-DTJ-2020

Envirotech APM -550, Serial No. 89 DTJ2012

Calibration due date of instrument : 24.03.2025

Duration : 24 Hrs

Issue date : 01.10.2024

Reference IS 5182 & Lab SOP

Date of Sampling	Lab Code	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
04.09.2024	N/24/09/3-0078	6	15	58	32	<20	<1
05.09.2024	N/24/09/3-0169	10	12	56	33	<20	<1
09.09.2024	N/24/09/4-0038	6	9	46	26	<20	<1
10.09.2024	N/24/09/4-0080	10	11	51	30	<20	<1
20.09.2024	N/24/09/5-0190	4	9	36	18	<20	<1
21.09.2024	N/24/09/5-0238	7	10	50	32	<20	<1
23.09.2024	N/24/09/6-0046	9	12	47	27	<20	<1
24.09.2024	N/24/09/6-0098	10	12	44	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	Lab Code	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
04.09.2024	N/24/09/3-0078	0.13	<0.1	<0.5	<0.5	0.20	31
05.09.2024	N/24/09/3-0169	0.18	<0.1	<0.5	<0.5	0.25	25
09.09.2024	N/24/09/4-0038	0.05	<0.1	<0.5	<0.5	0.21	23
10.09.2024	N/24/09/4-0080	0.12	<0.1	<0.5	<0.5	0.25	27
20.09.2024	N/24/09/5-0190	0.08	<0.1	<0.5	<0.5	0.22	24
21.09.2024	N/24/09/5-0238	0.11	<0.1	<0.5	<0.5	0.21	25
23.09.2024	N/24/09/6-0046	0.15	<0.1	<0.5	<0.5	0.20	28
24.09.2024	N/24/09/6-0098	0.13	<0.1	<0.5	<0.5	0.26	25
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

M. Sachin Raju
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

AMBIENT AIR QUALITY

Table No. 3

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,							
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services)							
Station at & Code : A3, Galemmanagudi							
Instrument Used : Envirotech APM 460BL Serial No. 2905-DTJ-2020 Envirotech APM -550, Serial No.86 DTJ2012							
Calibration due date of instrument : 24.03.2025							
Duration : 24 Hrs							
Issue date : 01.10.2024							
Reference IS 5182 & Lab SOP							
Date of Sampling	Lab Code	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
04.09.2024	N/24/09/3-0079	5	11	48	26	<20	<1
05.09.2024	N/24/09/3-0170	8	10	46	24	<20	<1
09.09.2024	N/24/09/4-0039	8	9	37	19	<20	<1
10.09.2024	N/24/09/4-0081	10	11	54	28	<20	<1
20.09.2024	N/24/09/5-0191	6	9	45	25	<20	<1
21.09.2024	N/24/09/5-0239	9	11	44	23	<20	<1
23.09.2024	N/24/09/6-0047	10	12	54	24	<20	<1
24.09.2024	N/24/09/6-0099	7	10	50	28	<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 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
04.09.2024	N/24/09/3-0079	<0.1	<0.1	<0.5	<0.5	0.25	33
05.09.2024	N/24/09/3-0170	0.11	<0.1	<0.5	<0.5	0.22	21
09.09.2024	N/24/09/4-0039	0.11	<0.1	<0.5	<0.5	0.28	22
10.09.2024	N/24/09/4-0081	0.19	<0.1	<0.5	<0.5	0.23	25
20.09.2024	N/24/09/5-0191	0.17	<0.1	<0.5	<0.5	0.20	20
21.09.2024	N/24/09/5-0239	0.11	<0.1	<0.5	<0.5	0.29	30
23.09.2024	N/24/09/6-0047	0.13	<0.1	<0.5	<0.5	0.31	25
24.09.2024	N/24/09/6-0099	0.19	<0.1	<0.5	<0.5	0.22	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							

M. Sachin Raju
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

AMBIENT AIR QUALITY

Table No. 4

Name and Address of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

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

Station at & Code : A4, Near Plant Railway Siding

Instrument Used : Envirotech APM 460BL Serial No. 2216-DTI-2017
Envirotech APM -550, Serial No. 87 DTJ2012

Calibration due date of instrument : 24.03.2025

Duration : 24 Hrs

Issue date : 01.10.2024

Reference IS 5182 & Lab SOP

Date of Sampling	Lab Code	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
04.09.2024	N/24/09/3-0080	8	12	50	27	<20	<1
05.09.2024	N/24/09/3-0171	9	11	57	30	<20	<1
09.09.2024	N/24/09/4-0040	8	13	42	23	<20	<1
10.09.2024	N/24/09/4-0082	6	12	58	32	<20	<1
20.09.2024	N/24/09/5-0192	9	14	45	25	<20	<1
21.09.2024	N/24/09/5-0240	11	16	54	28	<20	<1
23.09.2024	N/24/09/6-0048	8	12	58	33	<20	<1
24.09.2024	N/24/09/6-0100	11	14	40	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	Lab Code	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
04.09.2024	N/24/09/3-0080	0.11	<0.1	<0.5	<0.5	0.31	25
05.09.2024	N/24/09/3-0171	0.16	<0.1	<0.5	<0.5	0.20	<20
09.09.2024	N/24/09/4-0040	0.18	<0.1	<0.5	<0.5	0.23	25
10.09.2024	N/24/09/4-0082	0.10	<0.1	<0.5	<0.5	0.25	24
20.09.2024	N/24/09/5-0192	0.17	<0.1	<0.5	<0.5	0.28	22
21.09.2024	N/24/09/5-0240	0.15	<0.1	<0.5	<0.5	0.22	25
23.09.2024	N/24/09/6-0048	0.11	<0.1	<0.5	<0.5	0.25	25
24.09.2024	N/24/09/6-0100	0.21	<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

M. Sachin Raju
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 5

Analysis Report of Fugitive Emission

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.,
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist,
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services)
Station at & Code : Near Battery Area (Coke Oven)
Duration : 08 Hrs
Issue date : 01.10.2024
Reference IS 5182 & Lab Sop

Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	Lead (Pb), µg/m ³	Carbon Monoxide* (CO), mg/m ³	Benzo (a) Pyrene (BaP) µg/m ³
20.09.2024	N/24/09/5-0193	12	18	285	0.18	0.42	<0.0005
Permissible limits for Fugitive Emissions as per G.S.R.277E Dated on 31.03.2012		150	120	3000	2.0	10	2
		8 Hrs	8 Hrs	8 Hrs	8 Hrs	1 Hr	8 Hrs

Note : * Parameters monitored for period of 1 hr

M. Sachin Raju
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT


Table No. 6

Analysis Report of Fugitive Emission

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.,
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist,
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services)
Station at & Code : Coal Storage area (Coke Oven)
Duration : 08 Hrs
Issue date : 01.10.2024
Reference IS 5182 & Lab Sop

Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	Lead (Pb), µg/m ³	Carbon Monoxide* (CO), mg/m ³	Benzo (a) Pyrene (BaP) µg/m ³
20.09.2024	N/24/09/5-0194	10	14	312	0.22	0.36	<0.0005
Permissible limits for Fugitive Emissions as per G.S.R.277E		150	120	3000	2.0	10	2
Dated on 31.03.2012		8 Hrs	8 Hrs	8 Hrs	8 Hrs	1 Hr	8 Hrs

Note : * Parameters monitored for period of 1 hr


M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 7

Analysis Report of Fugitive Emission

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd., (Metal & Ferro Alloys Plant), Vysanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist,						
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services)						
Station at & Code : Finished goods yard in between F3 & F5 (M&FA)						
Duration : 08 Hrs						
Issue date : 01.10.2024						
Reference IS 5182 & Lab Sop						
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	Lead (Pb), µg/m ³	Carbon Monoxide* (CO), mg/m ³
21.09.2024	N/24/09/5-0241	9	12	296	0.16	0.28
Permissible limits for Fugitive Emissions as per G.S.R.277E Dated on 31.03.2012		150	120	3000	2.0	10
		8 Hrs	8 Hrs	8 Hrs	8 Hrs	1 Hr
Note : * Parameters monitored for period of 1 hr						

M. SACHIN RAJU
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 8

Analysis Report of Fugitive Emission

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd., (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist,						
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services)						
Station at & Code : Raw martial storage area (M&FA)						
Duration : 08 Hrs						
Issue date : 01.10.2024						
Reference IS 5182 & Lab Sop						
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	Lead (Pb), µg/m ³	Carbon Monoxide* (CO), mg/m ³
21.09.2024	N/24/09/5-0242	12	16	265	0.21	0.38
Permissible limits for Fugitive Emissions as per G.S.R.277E Dated on 31.03.2012		150 8 Hrs	120 8 Hrs	3000 8 Hrs	2.0 8 Hrs	10 1 Hr
Note : * Parameters monitored for period of 1 hr						

M. Sachin Raju
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envttest.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 23.05.2025

TEST REPORT

Table No. 9

Stack Monitoring Report

Report No. N027424095

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,	
Location	: ARC Furnace area
Stack ID	: Stack Attached to Furnace - 3
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Particulars of Sample Collected	: Emissions from stack collected through stack sample VSS1
Date of Collection	: 20.09.2024
Date of Sample Receipt	: 23.09.2024
Lab Code	: N/24/09/5-0274
Issue date	: 01.10.2024

STACK DETAILS

1	Fuel Used	-
2	Ambient Temperature (°C)	30
3	Stack Temperature (°C)	130
4	Velocity (m/s)	8.42
5	Stack Height (M)	35
6	Stack Diameter (M)	2.5
7	Cross Sectional Area in meter square (m ²)	95733
8	Quantity of flue Gas Discharged into atmosphere (Nm ³ /hr)	99846
9	Sample Condition When Received	Satisfactory
10	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
11	Serial No. of the Equipment	338 DTH 14
12	Calibration done on and due on	Done on 19.11.2022 and Due on 18.11.2024

Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Tolerance Limits Ref - G.S.R. 227(E) dated 31.03.2012	Test Method
1	Particulate Matter	mg/Nm ³	24.22	150	IS: 11255(Part-1) 2014
2	Sulphur Dioxide (SO ₂).	mg/Nm ³	14.22	--	IS: 11255(Part-2) 2014
3	Nitrogen Dioxide (NO ₂)	mg/Nm ³	18.33	--	IS: 11255(Part-7) 2017
4	CO	%	0.26	--	flue gas analyser
5	Oxygen (O ₂)	%	13.21	--	flue gas analyser

M. Sachin Raju
M.SACHIN RAJU

T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT Stack Monitoring Report

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,					
Location	: Coke Oven Plant				
Stack ID	: Stack Attached to WHRB -01				
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)				
Particulars of Sample Collected	: Emissions from stack collected through stack sample VSS1				
Date of Collection	: 20.09.2024				
STACK DETAILS					
1	Fuel Used	-			
2	Ambient Temperature ($^{\circ}$ C)	30			
3	Stack Temperature ($^{\circ}$ C)	0			
4	Velocity (m/s)	0			
5	Stack Height (M)	60			
6	Stack Diameter (M)	4.6			
7	Cross Sectional Area in meter square (m^2)	16.62647			
8	Quantity of flue Gas Discharged into atmosphere (Nm^3/hr)	0			
9	Sample Condition When Received	Satisfactory			
10	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1			
11	Serial No. of the Equipment	338 DTH 14			
12	Calibration done on and due on	Done on 19.11.2022 and Due on 18.11.2024			
Pollutional Parameters (Result)					
Sl.No	Parameters	Unit	Results	Tolerance Limits Ref - G.S.R. 227(E) dated 31.03.2012	Test Method
1	Particulate Matter	mg/Nm^3	0.00	50	IS: 11255(Part-1) 2014
2	Sulphur Dioxide (SO_2),	mg/Nm^3	0.00	800	IS: 11255(Part-2) 2014
3	Nitrogen Dioxide (NO_2)	mg/Nm^3	0.00	500	IS: 11255(Part-7) 2017
4	CO	%	0.00	Max1%	flue gas analyser
5	Oxygen (O_2)	%	0.00	--	flue gas analyser

Remarks - Coke Oven Plant Shutdown

M. Sachin Raju
M.SACHIN RAJU

T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Stack Monitoring Report

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,	
Location	: Coke Oven Plant
Stack ID	: Stack Attached to WHRB -02
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Particulars of Sample Collected	: Emissions from stack collected through stack sample VSS1
Date of Collection	: 20.09.2024

STACK DETAILS

1	Fuel Used	-
2	Ambient Temperature (°C)	30
3	Stack Temperature (°C)	0
4	Velocity (m/s)	0
5	Stack Height (M)	60
6	Stack Diameter (M)	4.6
7	Cross Sectional Area in meter square (m ²)	16.62647
8	Quantity of flue Gas Discharged into atmosphere (Nm ³ /hr)	0
9	Sample Condition When Received	Satisfactory
10	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
11	Serial No. of the Equipment	338 DTH 14
12	Calibration done on and due on	Done on 19.11.2022 and Due on 18.11.2024

Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Tolerance Limits Ref - G.S.R. 227(E) dated 31.03.2012	Test Method
1	Particulate Matter	mg/Nm ³	0.00	50	IS: 11255(Part-1) 2014
2	Sulphur Dioxide (SO ₂),	mg/Nm ³	0.00	800	IS: 11255(Part-2) 2014
3	Nitrogen Dioxide (NO ₂)	mg/Nm ³	0.00	500	IS: 11255(Part-7) 2017
4	CO	%	0.00	Max1%	flue gas analyser
5	Oxygen (O ₂)	%	0.00	--	flue gas analyser

Remarks - Coke Oven Plant Shutdown

M. Sachin Raju
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Stack Monitoring Report

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,	
Location	: Coke Oven Plant
Stack ID	: Stack Attached to Coal Crushing
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Particulars of Sample Collected	: Emissions from stack collected through stack sample VSS1
Date of Collection	: 21.09.2024

STACK DETAILS

1	Fuel Used	-
2	Ambient Temperature (°C)	30
3	Stack Temperature (°C)	0
4	Velocity (m/s)	0.00
5	Stack Height (M)	15
6	Stack Diameter (M)	0.7
7	Cross Sectional Area in meter square (m ²)	0.4419
8	Quantity of flue Gas Discharged into atmosphere (Nm ³ /hr)	0
9	Sample Condition When Received	Satisfactory
10	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
11	Serial No. of the Equipment	338 DTH 14
12	Calibration done on and due on	Done on 19.11.2022 and Due on 18.11.2024

Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Tolerance Limits Ref - G.S.R. 227(E) dated 31.03.2012	Test Method
1	Particulate Matter	mg/Nm ³	0.00	50	IS: 11255(Part-1) 2014

Remarks - Coke Oven Plant Shutdown

M. Sachin Raju
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Stack Monitoring Report

Name and Address of the Industry :	Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,
Location :	Coke Oven Plant
Stack ID :	Stack Attached to Coke Cutter
Sample Collected by :	Environmental Laboratory (Unit of Mineral Engineering Services)
Particulars of Sample Collected :	Emissions from stack collected through stack sample VSS1
Date of Collection :	21.09.2024

STACK DETAILS

1	Fuel Used	-
2	Ambient Temperature ($^{\circ}\text{C}$)	30
3	Stack Temperature ($^{\circ}\text{C}$)	0
4	Velocity (m/s)	0
5	Stack Height (M)	15
6	Stack Diameter (M)	0.7
7	Cross Sectional Area in meter square (m^2)	0.3850
8	Quantity of flue Gas Discharged into atmosphere (Nm^3/hr)	0
9	Sample Condition When Received	Satisfactory
10	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
11	Serial No. of the Equipment	338 DTH 14
12	Calibration done on and due on	Done on 19.11.2022 and Due on 18.11.2024

Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Tolerance Limits Ref - G.S.R. 227(E) dated 31.03.2012	Test Method
1	Particulate Matter	mg/Nm^3	0.00	50	IS: 11255(Part-1) 2014

Remarks - Coke Oven Plant Shutdown

M. SACHIN RAJU
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT Stack Monitoring Report

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,	
Location	: Coke Oven Plant
Stack ID	: Stack Attached to Coke Screening & Store
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Particulars of Sample Collected	: Emissions from stack collected through stack sample VSS1
Date of Collection	: 21.09.2024

STACK DETAILS

1	Fuel Used	-
2	Ambient Temperature ($^{\circ}\text{C}$)	30
3	Stack Temperature ($^{\circ}\text{C}$)	0
4	Velocity (m/s)	0.00
5	Stack Height (M)	15
6	Stack Diameter (M)	0.7
7	Cross Sectional Area in meter square (m^2)	0.3850
8	Quantity of flue Gas Discharged into atmosphere (Nm^3/hr)	0
9	Sample Condition When Received	Satisfactory
10	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
11	Serial No. of the Equipment	338 DTH 14
12	Calibration done on and due on	Done on 19.11.2022 and Due on 18.11.2024

Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Tolerance Limits Ref - G.S.R. 227(E) dated 31.03.2012	Test Method
1	Particulate Matter	mg/Nm^3	0.00	50	IS: 11255(Part-1) 2014

Remarks - Coke Oven Plant Shutdown

M. Sachin Raju
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 10

Stack Monitoring Report

Report No : N028024095

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,	
Stack ID	: DG Set 750 KVA (Coke Oven)
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Date of Collection	: 23.09.2024
Particulars of Sample Collected	: Emissions from stack collected through stack sample VSS1
Date of Sample Receipt	: 25.09.2024
Lab Code	: N/24/09/5-0280
Issue date	: 01.10.2024

STACK DETAILS

1	Fuel Used	Diesel
2	Ambient Temperature ($^{\circ}\text{C}$)	30
3	Stack Temperature ($^{\circ}\text{C}$)	180
4	Velocity (m/s)	9.04
5	Stack Height (M)	15.0
6	Stack diameter (M)	0.30
7	Quantity of flue Gas Discharged into atmosphere (Nm^3/hr)	2005
8	Sample Condition When Received	Satisfactory
9	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
10	Serial No. of the Equipment	338 DTH 14
11	Calibration done on and due on	Done on 19.11.2022 and Due on 18.11.2024
12	Sampling and Analysis Method	IS 11255 & flue gas analyser

Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.027	<0.2
2	CO	g/Kw-hr	0.11	<3.5
3	Nox +HC	g/Kw-hr	0.27	<4.0

INFERENCE	as per KSPCB Report Status - The measured values for the above parameters for those standards have been specified were observed to be within the said standards
-----------	--

M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 11.

Stack Monitoring Report

Report No. : N028124095

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vysanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,	
Stack ID	: DG Set 250 KVA at VHT-2
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Date of Collection	: 23.09.2024
Particulars of Sample Collected	: Emissions from stack collected through stack sample VSS1
Date of Sample Receipt	: 25.09.2024
Lab Code	: N/24/09/5-0281
Issue date	: 01.10.2024

STACK DETAILS

1	Fuel Used	Diesel
2	Ambient Temperature ($^{\circ}$ C)	30
3	Stack Temperature ($^{\circ}$ C)	155
4	Velocity (m/s)	11.41
5	Stack Height (M)	5.0
6	Stack diameter (M)	0.20
7	Quantity of flue Gas Discharged into atmosphere (Nm^3/hr)	940
8	Sample Condition When Received	Satisfactory
9	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
10	Serial No. of the Equipment	338 DTH 14
11	Calibration done on and due on	Done on 19.11.2022 and Due on 18.11.2024
12	Sampling and Analysis Method	IS 11255 & flue gas analyser

Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.08	<0.2
2	CO	g/Kw-hr	0.21	<3.5
3	Nox +HC	g/Kw-hr	0.18	<4.0

INFERENCE

as per KSPCB

Report Status - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 12

Stack Monitoring Report

Report No. : N028824095

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,	
Stack ID	: DG Set 250 KVA at New baghouse
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Date of Collection	: 24.09.2024
Particulars of Sample Collected	: Emissions from stack collected through stack sample VSS1
Date of Sample Receipt	: 25.09.2024
Lab Code	: N/24/09/5-0288
Issue date	: 01.10.2024

STACK DETAILS

1	Fuel Used	Diesel
2	Ambient Temperature ($^{\circ}$ C)	30
3	Stack Temperature ($^{\circ}$ C)	225
4	Velocity (m/s)	15.75
5	Stack Height (M)	5.0
6	Stack diameter (M)	0.20
7	Quantity of flue Gas Discharged into atmosphere (Nm^3/hr)	1164
8	Sample Condition When Received	Satisfactory
9	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
10	Serial No. of the Equipment	338 DTH 14
11	Calibration done on and due on	Done on 19.11.2022 and Due on 18.11.2024
12	Sampling and Analysis Method	IS 11255 & flue gas analyser

Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.11	<0.2
2	CO	g/Kw-hr	0.29	<3.5
3	Nox +HC	g/Kw-hr	0.23	<4.0

INFERENCE

as per KSPCB

Report Status - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 13

Stack Monitoring Report

Report No. : N028924095

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,	
Stack ID	: DG Set 625 KVA (Power Plant)
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Date of Collection	: 24.09.2024
Particulars of Sample Collected	: Emissions from stack collected through stack sample VSS1
Date of Sample Receipt	: 25.09.2024
Lab Code	: N/24/09/5-0289
Issue date	: 01.10.2024

STACK DETAILS

1	Fuel Used	Diesel
2	Ambient Temperature ($^{\circ}$ C)	30
3	Stack Temperature ($^{\circ}$ C)	423
4	Velocity (m/s)	19.94
5	Stack Height (M)	15.0
6	Stack diameter (M)	0.30
8	Quantity of flue Gas Discharged into atmosphere (Nm^3/hr)	2044
9	Sample Condition When Received	Satisfactory
10	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
11	Serial No. of the Equipment	338 DTH 14
12	Calibration done on and due on	Done on 19.11.2022 and Due on 18.11.2024
13	Sampling and Analysis Method	IS 11255 & flue gas analyser

Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.09	<0.2
2	CO	g/Kw-hr	0.24	<3.5
3	Nox +HC	g/Kw-hr	0.21	<4.0

INFERENCE

as per KSPCB

Report Status - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 14

AMBIENT NOISE LEVEL DATA

Report No. ELMES0142409

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

Particulars of Sample Collected : Ambient Noise Level collected through Sound
Level Meter (HTC SL-1352 Data Logger)

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

Date of sample collection : 21.09.2024

Date of sample receipt : 23.09.2024

Issue Date : 01.10.2024

Sampling & Test Method : IS:9989

Code No.	Monitoring stations	Day			Night		
		(06.00 Am to 10.00 Pm)			(10.00 Pm to 06.00 Am)		
		L _{min}	L _{eq}	L _{max}	L _{min}	L _{eq}	L _{max}
Core zone							
N1	Near Existing AAQMS 01 (SMIORE Schools)	39.0	85.0	95.0	34.0	44.6	51.2
N2	Existing Water Reservoir (Near WTP Plant)	37.0	47.6	55.0	34.0	43.8	47.5
Buffer zone							
N3	Galemmanagudi	36.0	48.5	54.3	34.2	42.6	47.0
N4	Vysanakere Village	39.0	48.9	53.5	34.0	44.2	46.0
N5	Hanumanhalli	39.0	52.6	57.3	33.5	41.5	46.0
Permissible Limits of Ambient Noise Levels as per CPCB Guidelines							
Leq. Limit dB(A)							
		Day		Night			
Industrial areas		75		70			
Commercial area		65		55			
Residential area		55		45			

M. SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 15

FUGITIVE NOISE LEVEL DATA

Report No. ELMES0162409

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,				
Particulars of Sample Collected		: DG Noise Level collected through Sound Level Meter (HTC SL-1352 Data Logger)		
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services)		
Date of sample collection		: 24.09.2024		
Date of sample receipt		: 25.09.2024		
Issue Date		: 01.10.2024		
Code No.	Sample Location	Remarks	Parameters	
			Sound level in dB(A)	
			L _{eq}	CPCB Std.
N1	Stack Attached to 750 KVA (Coke Oven)	Monitoring done at 1mts distance from DG Set	73.3	75.0
N2	Stack Attached to 250 KVA at VHT-2		69.8	
N3	Stack Attached to 250 KVA at New Baghouse		67.9	
N4	Stack Attached to 625 KVA (Power Plant)		72.8	
Note <ul style="list-style-type: none"> • Day Time is reckoned between 6 Am to 10 PM • Night Time is reckoned between 10 Pm to 6Am • L_{eq} It is energy means of the noise level over a specified period. • "dB (A) L_{eq} denotes the time weighted average of the level of sound in decibels on scale 'A' which is related to human hearing. • A "decible" is a unit in which noise is measured. • "A", in dB(A) L_{eq}, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristic of human ear. 				
INFERENCE		As per CPCB standards, Report status: - The measured values for the above locations are within the standards		

M. Sachin Raju
M.SACHIN RAJU
T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. J 6
Report No : N0024424095

Name of the Client	: M/s. M/s. Sandur Manganese & Iron Ores Limited (Metal & Ferro Alloys Plant),
Name of the Project	: Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist,
Particulars of sample collected	: DW1 - Plant Drinking water
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Date of sample collection	: 21.09.2024
Date of sample receipt	: 23.09.2024
Lab Code	: N/24/09/5-0244
Issue Date	: 30.09.2024
Ref	: IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)

Sl. No.	Parameters	Results	Desirable Limits	Permissible Limits	Method of Testing
1	Colour (Hazen Units), Max	<1	5	15	IS:3025 (P-4)02021
2	Odour, Max	Agreeable	Agreeable	Agreeable	IS:3025 (P-5) 2018
3	pH Value	8.40	6.5 to 8.5	6.5 - 8.5	IS:3025 (P-11)2022
4	Taste	Agreeable	Agreeable	Agreeable	IS:3025 (P- 8)1984 RA 2017
5	Turbidity,NTU, Max	1.2	1	5	IS:3025 (P-10)1984 RA2017
6	Electrical Conductivity (µmhos/cm)	70	--	--	IS 3025 (P-14)
7	Total Dissolved Solids,mg/l, Max	35	500	2000	IS:3025 (P-16)1984 RA2017
8	Aluminium (as Al), Max	<0.01	0.03	0.2	IS:3025 (P-55)2003 RA2019
9	Ammonia (as total Ammonia -N),mg/l, Max	<0.1	0.5	0.5	IS:3025 (P-34)1988 RA2019
10	Anionic Detergents (as MBAS),mg/l, Max	<0.1	0.2	1.0	Annex K of Is:13428Amm 11 2022
11	Barium (as Ba), mg/l, Max	<0.005	0.7	0.7	IS:3025(P-2)2019
12	Boron (as B), mg/l, Max	<0.1	0.5	2.4	IS:3025 (Part-57)2021
13	Calcium (as Ca),mg/l, Max	3.20	75	200	IS:3025 (P-40)1991 RA 2019
14	Copper (as Cu),mg/l, Max	<0.005	0.05	1.5	IS:3025 (P-2)2019
15	Chloride as Cl (mg/l),mg/l, Max	14.00	250	1000	IS:3025 (P-32)1988 RA 2019
16	Fluoride (as F),mg/l, Max	<0.1	1	1.5	IS:3025 (P-60)2008 RA 2019
17	Residual, Free Chlorine,mg/l, Max	<0.1	0.2	1	IS:3025 (P-26)2021
18	Chloramines as C12, Max	<0.1	4	4	IS:3025(P-26)2021
19	Iron (as Fe),mg/l, Max	<0.005	1.0	1.0	IS:3025 (Part-2)2019
20	Magnesium (as Mg)mg/l, Max	1.9	30	100	IS:3025 (P-46)1994 RA 2019
21	Manganese (as Mn),mg/l, Max	<0.001	0.1	0.3	IS:3025 (P-2)2019
22	Mineral Oil,mg/l, Max	<0.5	1.0	1.0	Clause 6 of IS 3025 (P-39) 2021
23	Nitrates (as NO ₃),mg/l, Max	1.40	45	45	IS:3025 (P-34) 1988 RA 2019
24	Phenolics (as C ₆ H ₅ OH),mg/l, Max	<0.001	0.001	0.002	IS:3025 (P-43)Sec 1 2022
25	Selenium (as Se),mg/l, Max	<0.005	0.01	0.01	IS:3025(P-2)2019
26	Silver (as Ag), mg/l, Max	<0.005	0.1	0.1	IS:3025(P-2)2019
27	Molybdenum (as Mo), mg/l, Max	<0.001	0.07	0.07	IS:3025 (P-2)2019
28	Sulphates (as SO ₄),mg/l, Max	2.50	200	400	IS:3025 (P-24) Sec 1 2022
29	Sulphide (as H ₂ S) , mg/l, Max	<0.01	0.05	0.05	IS:3025 (P-29):1986 RA 2019
30	Alkalinity (as CaCO ₃) mg/l, Max	12.0	200	600	IS:3025 (P-23):1986 RA 2019
31	Total Hardness (as CaCO ₃),mg/l, Max	16.0	200	600	IS:3025 (P-21):2009 RA 2019
32	Zinc (as Zn),mg/l, Max	<0.005	5	15	IS:3025 (P-2) 2019
33	Cadmium (as Cd),mg/l, Max	<0.001	0.003	0.003	IS:3025 (P-2)2019
34	Cyanide (as CN),mg/l, Max	<0.01	0.05	0.05	IS:3025 (P-27)Sec 1 2021
35	Lead (as Pb),mg/l, Max	<0.005	0.01	0.01	IS:3025 (P-2)2019
36	Mercury (as Hg),mg/l, Max	<0.0005	0.001	0.001	USPEA 200.7 Rev 4.4
37	Nickel (as Ni),mg/l, Max	<0.001	0.02	0.02	IS:3025 (P-2) 2019
38	Arsenic (as As),mg/l, Max	<0.002	0.01	0.01	IS:3025 (P-2)2019
39	Total Chromium (as Cr),mg/l, Max	<0.001	0.05	0.05	IS:3025 (P-52)2014
40	Escherichia coli/100ml	Not Detected	Shell Not be detected in any 100ml sample		IS:15185:2016 RA 2021
41	Total Coliform (cfu/100ml)	Not Detected	Shell Not be detected in any 100ml sample		IS:15185:2016 RA 2021

"END OF REPORT"


BINU MANI

T.M. - Microbiology

Govt. Analyst / Authorised Signatory


M.SACHIN RAJU

T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No.17

Report No : N024524095

Name of the Client	: M/s. M/s. Sandur Manganese & Iron Ores Limited (Metal & Ferro Alloys Plant),
Name of the Project	: Vysanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist,
Particulars of sample collected	: GW2 - Vysanakere Village Bore water
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Date of sample collection	: 21.09.2024
Date of sample receipt	: 23.09.2024
Lab Code	: N/24/09/5-0245
Issue Date	: 30.09.2024
Ref	: IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)

Sl. No.	Parameters	Results	Desirable Limits	Permissible Limits	Method of Testing
1	Colour (Hazen Units), Max	1	5	15	IS:3025 (P-4)2021
2	Odour, Max	Agreeable	Agreeable	Agreeable	IS:3025 (P-5) 2018
3	pH Value	8.05	6.5 to 8.5	6.5 - 8.5	IS:3025 (P-11)2022
4	Taste	Agreeable	Agreeable	Agreeable	IS:3025 (P- 8)1984 RA 2017
5	Turbidity,NTU, Max	1.4	1	5	IS:3025 (P-10)1984 RA2017
6	Electrical Conductivity (µmhos/cm)	360.0	--	--	IS 3025 (P-14)
7	Total Dissolved Solids,mg/l, Max	104	500	2000	IS:3025 (P-16)1984 RA2017
8	Aluminium (as Al), Max	<0.01	0.03	0.2	IS:3025 (P-55)2003 RA2019
9	Ammonia (as total Ammonia -N),mg/l, Max	<0.1	0.5	0.5	IS:3025 (P-34)1988 RA2019
10	Anionic Detergents (as MBAS),mg/l, Max	<0.1	0.2	1.0	Annex K of Is:13428Amm 11 2022
11	Barium (as Ba), mg/l, Max	<0.005	0.7	0.7	IS:3025(P-2)2019
12	Boron (as B), mg/l, Max	<0.1	0.5	2.4	IS:3025 (Part-57)2021
13	Calcium (as Ca),mg/l, Max	24.80	75	200	IS:3025 (P-40)1991 RA 2019
14	Copper (as Cu),mg/l, Max	<0.005	0.05	1.5	IS:3025 (P-2)2019
15	Chloride as Cl (mg/l),mg/l, Max	28.00	250	1000	IS:3025 (P-32)1988 RA 2019
16	Fluoride (as F),mg/l, Max	<0.1	1	1.5	IS:3025 (P-60)2008 RA 2019
17	Residual, Free Chlorine,mg/l, Max	<0.1	0.2	1	IS:3025 (P-26)2021
18	Chloramines as C12, Max	<0.1	4	4	IS:3025(P-26)2021
19	Iron (as Fe),mg/l, Max	<0.005	1.0	1.0	IS:3025 (Part-2)2019
20	Magnesium (as Mg)mg/l, Max	14.1	30	100	IS:3025 (P-46)1994 RA 2019
21	Manganese (as Mn),mg/l, Max	<0.001	0.1	0.3	IS:3025 (P-2)2019
22	Mineral Oil,mg/l, Max	<0.5	1.0	1.0	Clause 6 of IS 3025 (P-39) 2021
23	Nitrates (as NO ₃),mg/l, Max	3.75	45	45	IS:3025 (P-34) 1988 RA 2019
24	Phenolics (as C ₆ H ₅ OH),mg/l, Max	<0.001	0.001	0.002	IS:3025 (P-43)Sec 1 2022
25	Selenium (as Se),mg/l, Max	<0.005	0.01	0.01	IS:3025(P-2)2019
26	Silver (as Ag), mg/l, Max	<0.005	0.1	0.1	IS:3025(P-2)2019
27	Molybdenum (as Mo), mg/l, Max	<0.001	0.07	0.07	IS:3025 (P-2)2019
28	Sulphates (as SO ₄),mg/l, Max	24.70	200	400	IS:3025 (P-24) Sec 1 2022
29	Sulphide (as H ₂ S) , mg/l, Max	<0.01	0.05	0.05	IS:3025 (P-29):1986 RA 2019
30	Alkalinity (as CaCO ₃) mg/l, Max	140.0	200	600	IS:3025 (P-23):1986 RA 2019
31	Total Hardness (as CaCO ₃),mg/l, Max	120.0	200	600	IS:3025 (P-21):2009 RA 2019
32	Zinc (as Zn),mg/l, Max	<0.005	5	15	IS:3025 (P-2) 2019
33	Cadmium (as Cd),mg/l, Max	<0.001	0.003	0.003	IS:3025 (P-2)2019
34	Cyanide (as CN),mg/l, Max	<0.01	0.05	0.05	IS:3025 (P-27)Sec 1 2021
35	Lead (as Pb),mg/l, Max	<0.005	0.01	0.01	IS:3025 (P-2)2019
36	Mercury (as Hg),mg/l, Max	<0.0005	0.001	0.001	USPEA 200.7 Rev 4.4
37	Nickel (as Ni),mg/l, Max	<0.001	0.02	0.02	IS:3025 (P-2) 2019
38	Arsenic (as As),mg/l, Max	<0.002	0.01	0.01	IS:3025 (P-2)2019
39	Total Chromium (as Cr),mg/l, Max	<0.001	0.05	0.05	IS:3025 (P-52)2014
40	Escherichia coli/100ml	Not Detected	Shell Not be detected in any 100ml sample		IS:15185:2016 RA 2021
41	Total Coliform (cfu/100ml)	Not Detected	Shell Not be detected in any 100ml sample		IS:15185:2016 RA 2021

"END OF REPORT"


BINU MANI

T.M. - Microbiology

Govt. Analyst / Authorised Signatory


M.SACHIN RAJU

T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 19

Report No : N024624095

Name of the Client	: M/s. M/s. Sandur Manganese & Iron Ores Limited (Metal & Ferro Alloys Plant),
Name of the Project	: Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist,
Particulars of sample collected	: GW3 - Galemmanagudi Bore water
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Date of sample collection	: 21.09.2024
Date of sample receipt	: 23.09.2024
Lab Code	: N/24/09/5-0246
Issue Date	: 30.09.2024
Ref	: IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)


Sl. No.	Parameters	Results	Desirable Limits	Permissible Limits	Method of Testing
1	Colour (Hazen Units), Max	1	5	15	IS:3025 (P-4)2021
2	Odour, Max	Agreeable	Agreeable	Agreeable	IS:3025 (P-5) 2018
3	pH Value	7.86	6.5 to 8.5	6.5 - 8.5	IS:3025 (P-11)2022
4	Taste	Agreeable	Agreeable	Agreeable	IS:3025 (P- 8)1984 RA 2017
5	Turbidity,NTU, Max	1.0	1	5	IS:3025 (P-10)1984 RA2017
6	Electrical Conductivity (µmhos/cm)	1700.0	--	--	IS 3025 (P-14)
7	Total Dissolved Solids,mg/l, Max	952	500	2000	IS:3025 (P-16)1984 RA2017
8	Aluminium (as Al), Max	<0.01	0.03	0.2	IS:3025 (P-55)2003 RA2019
9	Ammonia (as total Ammonia -N),mg/l, Max	<0.1	0.5	0.5	IS:3025 (P-34)1988 RA2019
10	Anionic Detergents (as MBAS),mg/l, Max	<0.1	0.2	1.0	Annex K of Is:13428Amm 11 2022
11	Barium (as Ba), mg/l, Max	<0.005	0.7	0.7	IS:3025(P-2)2019
12	Boron (as B), mg/l, Max	<0.1	0.5	2.4	IS:3025 (Part-57)2021
13	Calcium (as Ca),mg/l, Max	144.20	75	200	IS:3025 (P-40)1991 RA 2019
14	Copper (as Cu),mg/l, Max	<0.005	0.05	1.5	IS:3025 (P-2)2019
15	Chloride as Cl (mg/l),mg/l, Max	320.00	250	1000	IS:3025 (P-32)1988 RA 2019
16	Fluoride (as F),mg/l, Max	<0.1	1	1.5	IS:3025 (P-60)2008 RA 2019
17	Residual, Free Chlorine,mg/l, Max	<0.1	0.2	1	IS:3025 (P-26)2021
18	Chloramines as C12, Max	<0.1	4	4	IS:3025(P-26)2021
19	Iron (as Fe),mg/l, Max	0.030	1.0	1.0	IS:3025 (Part-2)2019
20	Magnesium (as Mg)mg/l, Max	68.0	30	100	IS:3025 (P-46)1994 RA 2019
21	Manganese (as Mn),mg/l, Max	<0.001	0.1	0.3	IS:3025 (P-2)2019
22	Mineral Oil,mg/l, Max	<0.5	1.0	1.0	Clause 6 of IS 3025 (P-39) 2021
23	Nitrates (as NO ₃),mg/l, Max	28.00	45	45	IS:3025 (P-34) 1988 RA 2019
24	Phenolics (as C ₆ H ₅ OH),mg/l, Max	<0.001	0.001	0.002	IS:3025 (P-43)Sec 1 2022
25	Selenium (as Se),mg/l, Max	<0.005	0.01	0.01	IS:3025(P-2)2019
26	Silver (as Ag), mg/l, Max	<0.005	0.1	0.1	IS:3025(P-2)2019
27	Molybdenum (as Mo), mg/l, Max	<0.001	0.07	0.07	IS:3025 (P-2)2019
28	Sulphates (as SO ₄),mg/l, Max	60.00	200	400	IS:3025 (P-24) Sec 1 2022
29	Sulphide (as H ₂ S) , mg/l, Max	<0.01	0.05	0.05	IS:3025 (P-29):1986 RA 2019
30	Alkalinity (as CaCO ₃) mg/l, Max	410.0	200	600	IS:3025 (P-23):1986 RA 2019
31	Total Hardness (as CaCO ₃),mg/l, Max	640.0	200	600	IS:3025 (P-21):2009 RA 2019
32	Zinc (as Zn),mg/l, Max	<0.005	5	15	IS:3025 (P-2) 2019
33	Cadmium (as Cd),mg/l, Max	<0.001	0.003	0.003	IS:3025 (P-2)2019
34	Cyanide (as CN),mg/l, Max	<0.01	0.05	0.05	IS:3025 (P-27)Sec 1 2021
35	Lead (as Pb),mg/l, Max	<0.005	0.01	0.01	IS:3025 (P-2)2019
36	Mercury (as Hg),mg/l, Max	<0.0005	0.001	0.001	USPEA 200.7 Rev 4.4
37	Nickel (as Ni),mg/l, Max	<0.001	0.02	0.02	IS:3025 (P-2) 2019
38	Arsenic (as As),mg/l, Max	<0.002	0.01	0.01	IS:3025 (P-2)2019
39	Total Chromium (as Cr),mg/l, Max	<0.001	0.05	0.05	IS:3025 (P-52)2014
40	Escherichia coli/100ml	Not Detected	Shell Not be detected in any 100ml sample		IS:15185:2016 RA 2021
41	Total Coliform (cfu/100ml)	Not Detected	Shell Not be detected in any 100ml sample		IS:15185:2016 RA 2021

"END OF REPORT"


BINU MANI

T.M. - Microbiology

Govt. Analyst / Authorised Signatory


M.SACHIN RAJU

T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Table No. 19

Report No : N024724095

Name of the Client	: M/s. M/s. Sandur Manganese & Iron Ores Limited (Metal & Ferro Alloys Plant),
Name of the Project	: Vyasankere, Hanumanahalli Village, Hospet Taluk, Ballari Dist,
Particulars of sample collected	: GW4 - Hanumanahalli Bore water
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services)
Date of sample collection	: 21.09.2024
Date of sample receipt	: 23.09.2024
Lab Code	: N/24/09/5-0247
Issue Date	: 30.09.2024
Ref	: IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)

Sl. No.	Parameters	Results	Desirable Limits	Permissible Limits	Method of Testing
1	Colour (Hazen Units), Max	1	5	15	IS:3025 (P-4)2021
2	Odour, Max	Agreeable	Agreeable	Agreeable	IS:3025 (P-5) 2018
3	pH Value	7.73	6.5 to 8.5	6.5 - 8.5	IS:3025 (P-11)2022
4	Taste	Agreeable	Agreeable	Agreeable	IS:3025 (P- 8)1984 RA 2017
5	Turbidity,NTU, Max	2.50	1	5	IS:3025 (P-10)1984 RA2017
6	Electrical Conductivity (µmhos/cm)	2700.0	--	--	IS 3025 (P-14)
7	Total Dissolved Solids,mg/l, Max	1512	500	2000	IS:3025 (P-16)1984 RA2017
8	Aluminium (as Al), Max	<0.01	0.03	0.2	IS:3025 (P-55)2003 RA2019
9	Ammonia (as total Ammonia -N),mg/l, Max	<0.1	0.5	0.5	IS:3025 (P-34)1988 RA2019
10	Anionic Detergents (as MBAS),mg/l, Max	<0.1	0.2	1.0	Annex K of Is:13428Amm 11 2022
11	Barium (as Ba), mg/l, Max	<0.005	0.7	0.7	IS:3025(P-2)2019
12	Boron (as B), mg/l, Max	<0.1	0.5	2.4	IS:3025 (Part-57)2021
13	Calcium (as Ca),mg/l, Max	180.00	75	200	IS:3025 (P-40)1991 RA 2019
14	Copper (as Cu),mg/l, Max	<0.005	0.05	1.5	IS:3025 (P-2)2019
15	Chloride as Cl (mg/l),mg/l, Max	500.0	250	1000	IS:3025 (P-32)1988 RA 2019
16	Fluoride (as F),mg/l, Max	0.21	1	1.5	IS:3025 (P-60)2008 RA 2019
17	Residual, Free Chlorine,mg/l, Max	<0.1	0.2	1	IS:3025 (P-26)2021
18	Chloramines as C12, Max	<0.1	4	4	IS:3025(P-26)2021
19	Iron (as Fe),mg/l, Max	0.05	1.0	1.0	IS:3025 (Part-2)2019
20	Magnesium (as Mg)mg/l, Max	85.00	30	100	IS:3025 (P-46)1994 RA 2019
21	Manganese (as Mn),mg/l, Max	<0.001	0.1	0.3	IS:3025 (P-2)2019
22	Mineral Oil,mg/l, Max	<0.5	1.0	1.0	Clause 6 of IS 3025 (P-39) 2021
23	Nitrates (as NO ₃),mg/l, Max	34.00	45	45	IS:3025 (P-34) 1988 RA 2019
24	Phenolics (as C ₆ H ₅ OH),mg/l, Max	<0.001	0.001	0.002	IS:3025 (P-43)Sec 1 2022
25	Selenium (as Se),mg/l, Max	<0.005	0.01	0.01	IS:3025(P-2)2019
26	Silver (as Ag), mg/l, Max	<0.005	0.1	0.1	IS:3025(P-2)2019
27	Molybdenum (as Mo), mg/l, Max	<0.001	0.07	0.07	IS:3025 (P-2)2019
28	Sulphates (as SO ₄),mg/l, Max	146.0	200	400	IS:3025 (P-24) Sec 1 2022
29	Sulphide (as H ₂ S) , mg/l, Max	<0.01	0.05	0.05	IS:3025 (P-29):1986 RA 2019
30	Alkalinity (as CaCO ₃) mg/l, Max	370.0	200	600	IS:3025 (P-23):1986 RA 2019
31	Total Hardness (as CaCO ₃),mg/l, Max	800.0	200	600	IS:3025 (P-21):2009 RA 2019
32	Zinc (as Zn),mg/l, Max	<0.005	5	15	IS:3025 (P-2) 2019
33	Cadmium (as Cd),mg/l, Max	<0.001	0.003	0.003	IS:3025 (P-2)2019
34	Cyanide (as CN),mg/l, Max	<0.01	0.05	0.05	IS:3025 (P-27)Sec 1 2021
35	Lead (as Pb),mg/l, Max	<0.005	0.01	0.01	IS:3025 (P-2)2019
36	Mercury (as Hg),mg/l, Max	<0.0005	0.001	0.001	USPEA 200.7 Rev 4.4
37	Nickel (as Ni),mg/l, Max	<0.001	0.02	0.02	IS:3025 (P-2) 2019
38	Arsenic (as As),mg/l, Max	<0.002	0.01.	0.01	IS:3025 (P-2)2019
39	Total Chromium (as Cr),mg/l, Max	<0.001	0.05	0.05	IS:3025 (P-52)2014
40	Escherichia coli/100ml	Not Detected	Shell Not be detected in any 100ml sample		IS:15185:2016 RA 2021
41	Total Coliform (cfu/100ml)	Not Detected	Shell Not be detected in any 100ml sample		IS:15185:2016 RA 2021

"END OF REPORT"


BINU MANI

T.M. - Microbiology

Govt. Analyst / Authorised Signatory


M.SACHIN RAJU

T.M. - Chemical

Govt. Analyst / Authorised Signatory

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 23.05.2025

TEST REPORT

Report No : N024324095

Name of the Client : M/s. Sandur Manganese & Iron Ores Limited
 Name of the Project : Iron & Steel Plant at Vyasanakere village,
 Hosapete Taluk, Ballari District, Karnataka
 Particulars of sample collected : 50 KLD STP Water
 Date of sample collection : 21.09.2024
 Lab Code : N/24/09/5-0243
 Issue Date : 30.09.2024

Ref : Discharge Standards for Treated Sewage Utilized for Landscape/Irrigation/Secondary Purposes

Sl. No.	Parameters	units	Results	Tolerance Limit	Method of Testing
1	pH	-	8.12	6.5 - 9.0	IS 3025 (P-11)2017
2	Biochemical Oxygen Demand BOD ₅ 27 ^o C	mg/l	5.6	<10	IS 3025 (P-44) 1993 RA 2019
3	Chemical Oxygen Demand (COD)	mg/l	16	<50	IS 3025 (P-58) 2006 RA 2017
4	Total Suspended Solids, at 105 ^o C	mg/l	10	<20	IS 3025 (P-16)1984 RA 2017
5	Ammonium (H4-N)	mg/l	0.6	<5	IS:3025 (P-34) 2023
6	Total Nitrogen (N-Total)	mg/l	4.8	<10	IS 3025 (Part-34)
7	Fecal coliform	MPN/100ml	<1.8	<100	IS:15185 :2016 RA 2021


 BINU MANI

T.M. - Microbiology

Govt. Analyst / Authorised Signatory


 M.SACHIN RAJU

T.M. - Chemical

Govt. Analyst / Authorised Signatory

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