

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/2023-24/ 77

5th July 2023

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 monitoring report for the month of **June-2023**.

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

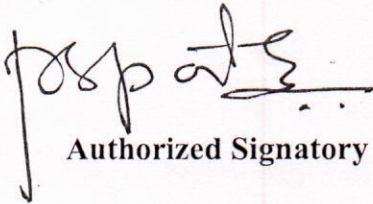
Dear Sir,


With reference to the above subject, herewith we are submitting the environmental monitoring report of our plant for the month of **June-2023** for your kind information.

Kindly acknowledge receipt of the same.

Thanking you,

The Sandur Manganese & Iron Ores Limited,


Authorized Signatory

ಸ್ವೀಕೃತಿ
ಕ.ರಾ.ಮಾ.ನಿ.ಮಂಡಳಿ
ಪ್ರಾದೇಶಿಕ ಕಛೇರಿ ವಿಜಯನಗರ, ಹೊಸಪೇಟೆ
ದಿನಾಂಕ: 06/07/23 ಸಹಿ: 

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, Ballari District
Tel: +91 8394 244450 / 244335



MSV Analytical Laboratories

(Certified by ISO 14001-2015, ISO 45001-2018, ISO 9001-2015, ISO 22000:2018)

NABL Accredited Laboratory

C.M.C Ward No 18 & C.T.C W.No.16 T.S No. 695/A/32/B1, Block No 19 (1st & 2nd Floor)

Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (0) : 9945456764, 08392-255169

Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msvalbellary@gmail.com Web ID : www.msvalbellary.com



TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 05.06.2023
- Report Issue Date** : 06.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: TC40712300001394F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1802	1806	1829			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	59.2	62.1	57.3	µg / m ³	59.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	29.1	30.4	26.4	µg / m ³	28.6	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	10.8	13.6	8.7	µg / m ³	11.0	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.9	17.8	13.7	µg / m ³	15.8	80
5	Ozone as O ₃	IS 5182(part-9)	13.2	13.5	13.0	µg / m ³	13.23	100
6	Lead	IS-5182(Part22)	0.034	0.037	0.032	µg / m ³	0.034	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.45	0.47	0.43	mg / m ³	0.45	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.28	1.31	1.26	µg / m ³	1.28	20

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory
B.Chinna Lingana Gouda
Chief executive of the laboratory

- Note : 1. The results listed only to the tested samples & applicable parameters,
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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msvalab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 01.06.2023
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- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 05.06.2023
- Report Issue Date** : 06.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0432

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0461	0462	0463			
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

END OF REPORT



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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 05.06.2023
- Report Issue Date** : 06.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: TC407123000001395F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1803	1807	1830			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	56.8	58.2	54.1	µg / m ³	56.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.1	20.3	16.2	µg / m ³	18.2	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.7	11.8	7.7	µg / m ³	9.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.2	15.6	10.7	µg / m ³	13.5	80
5	Ozone as O ₃	IS 5182(part-9)	9.1	9.5	9.0	µg / m ³	9.20	100
6	Lead	IS-5182(Part22)	0.026	0.028	0.024	µg / m ³	0.026	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.24	0.28	0.21	mg / m ³	0.24	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.32	1.34	1.30	µg / m ³	1.32	20

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

B. Chinna Lingana Gouda
Chief executive of the laboratory

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 05.06.2023
- Report Issue Date** : 06.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2023/0433

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0461	0463	0464			
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 05.06.2023
- Report Issue Date** : 06.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000001396F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1804	1808	1831			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	53.4	56.1	51.7	µg / m ³	53.7	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	19.1	22.3	16.3	µg / m ³	19.2	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.7	12.6	7.8	µg / m ³	10.0	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.9	19.2	14.7	µg / m ³	16.9	80
5	Ozone as O ₃	IS 5182(part-9)	9.1	9.5	8.3	µg / m ³	8.97	100
6	Lead	IS-5182(Part22)	0.026	0.029	0.024	µg / m ³	0.026	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.30	0.26	mg / m ³	0.28	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.32	1.38	1.30	µg / m ³	1.33	20

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



:- END OF REPORT :-

Authorized Signatory

B. Chinna Lingana Gouda
Chief executive of the laboratory

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

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- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 05.06.2023
- Report Issue Date** : 06.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0434

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0462	0464	0465			
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Chief executive of the laboratory

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MSVAL/AA/RF/01/00

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- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
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Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
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- Analysis Completion Date** : 05.06.2023
- Report Issue Date** : 06.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300001397F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1805	1809	1832			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	57.1	58.4	55.4	µg / m ³	57.0	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	17.3	19.2	14.2	µg / m ³	16.9	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.6	10.8	7.8	µg / m ³	9.1	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	13.9	15.6	11.8	µg / m ³	13.8	80
5	Ozone as O ₃	IS 5182(part-9)	9.2	10.1	8.2	µg / m ³	9.17	100
6	Lead	IS-5182(Part22)	<0.01	<0.01	<0.01	µg / m ³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	1.38	1.41	1.36	mg / m ³	1.38	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	<0.01	<0.01	<0.01	µg / m ³	<0.01	20

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

B. Channa Lingana Gouda
Chief executive of the laboratory

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5. Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.



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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 05.06.2023
- Report Issue Date** : 06.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0435

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0463	0465	0466			
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

- Note: 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 06.06.2023
- Date of Sample Receipt** : 07.06.2023
- Analysis Starting Date** : 07.06.2023
- Analysis Completion Date** : 12.06.2023
- Report Issue Date** : 13.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: TC407123000001627F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2213	2214	2215			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.3	50.2	56.4	µg / m ³	53.0	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	24.6	22.3	28.7	µg / m ³	25.2	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.4	6.3	12.1	µg / m ³	8.6	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12.6	11.2	16.8	µg / m ³	13.5	80
5	Ozone as O ₃	IS 5182(part-9)	11	9	13	µg / m ³	11.0	100
6	Lead	IS-5182(Part22)	0.022	0.020	0.024	µg / m ³	0.022	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.36	0.34	0.38	mg / m ³	0.36	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.28	1.26	1.30	µg / m ³	1.28	20

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

Note: 1. The results listed only to the tested samples & applicable parameters,

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 06.06.2023
- Date of Sample Receipt** : 07.06.2023
- Analysis Starting Date** : 07.06.2023
- Analysis Completion Date** : 12.06.2023
- Report Issue Date** : 13.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0537

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0635	0636	0637			
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

- Note: 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 06.06.2023
- Date of Sample Receipt** : 07.06.2023
- Analysis Starting Date** : 07.06.2023
- Analysis Completion Date** : 12.06.2023
- Report Issue Date** : 13.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: TC407123000001628F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2216	2217	2218			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	55.8	52.3	58.8	µg / m ³	55.6	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.4	17.4	24.6	µg / m ³	20.8	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	11.3	9.1	15	µg / m ³	11.8	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.4	10.7	19.2	µg / m ³	15.1	80
5	Ozone as O ₃	IS 5182(part-9)	7.6	7.8	7.9	µg / m ³	7.8	100
6	Lead	IS-5182(Part22)	0.025	0.027	0.030	µg / m ³	0.027	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.25	0.30	mg / m ³	0.28	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.36	1.38	1.40	µg / m ³	1.38	20

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory

B. Channa Lingana Gouda
Chief executive of the laboratory

Note : 1. The results listed only to the tested samples & applicable parameters,

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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 06.06.2023
- Date of Sample Receipt** : 07.06.2023
- Analysis Starting Date** : 07.06.2023
- Analysis Completion Date** : 12.06.2023
- Report Issue Date** : 13.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0538

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0638	0639	0640			
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vyasanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 06.06.2023
- Date of Sample Receipt** : 07.06.2023
- Analysis Starting Date** : 07.06.2023
- Analysis Completion Date** : 12.06.2023
- Report Issue Date** : 13.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000001629F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2219	2220	2221			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.7	53.2	57.4	µg / m ³	55.1	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.3	17.4	23.5	µg / m ³	20.4	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	14.6	11.1	17.5	µg / m ³	14.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.9	14.8	20.9	µg / m ³	17.9	80
5	Ozone as O ₃	IS 5182(part-9)	7.9	7.5	8.2	µg / m ³	7.9	100
6	Lead	IS-5182(Part22)	<0.01	<0.01	<0.01	µg / m ³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.27	0.25	0.30	mg / m ³	0.27	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	<0.01	<0.01	<0.01	µg / m ³		20

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory

B. Chinnna Lingana Gouda
Chief executive of the laboratory

Note: 1. The results listed only to the tested samples & applicable parameters,

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 06.06.2023
- Date of Sample Receipt** : 07.06.2023
- Analysis Starting Date** : 07.06.2023
- Analysis Completion Date** : 12.06.2023
- Report Issue Date** : 13.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0539

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
-----------	---

Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location : Gunda Village
- Sample Collected By : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring : 06.06.2023
- Date of Sample Receipt : 07.06.2023
- Analysis Starting Date : 07.06.2023
- Analysis Completion Date : 12.06.2023
- Report Issue Date : 13.06.2023
- Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300001630F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2222	2223	2224			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.4	50.5	55.2	µg / m ³	52.7	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	27.8	25.6	30.2	µg / m ³	27.9	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	10.2	8	15	µg / m ³	11.1	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.9	15.6	20.8	µg / m ³	18.1	80
5	Ozone as O ₃	IS 5182(part-9)	13.0	11	15	µg / m ³	13.0	100
6	Lead	IS-5182(Part22)	0.030	0.028	0.032	µg / m ³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.40	0.38	0.43	mg / m ³	0.40	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	<0.01	<0.01	<0.01	µg / m ³	<0.01	20

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory

B. Channa Lingana Gouda
Chief executive of the laboratory

- Note: 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will be destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.
5. Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.



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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 06.06.2023
- Date of Sample Receipt** : 07.06.2023
- Analysis Starting Date** : 07.06.2023
- Analysis Completion Date** : 12.06.2023
- Report Issue Date** : 13.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0540

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0644	0645	0646			
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



:- END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

Note : 1. The results listed only to the tested samples & applicable parameters,

2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.

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MSV Analytical Laboratories

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NABL Accredited Laboratory

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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com



TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 09.06.2023
- Date of Sample Receipt** : 10.06.2023
- Analysis Starting Date** : 10.06.2023
- Analysis Completion Date** : 14.06.2023
- Report Issue Date** : 15.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000001789F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2501	2502	2503			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	65.8	62.7	57.3	µg / m ³	61.9	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	22.5	19.4	17.1	µg / m ³	19.7	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-6):2017	15.6	13.2	11.25	µg / m ³	13.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	18.65	16.7	15.05	µg / m ³	16.8	80
5	Ozone as O ₃	IS 5182(part-9):2019	9.2	8.7	8.4	µg / m ³	8.8	100
6	Lead	IS-5182(Part-23):2017	0.034	0.032	0.028	µg / m ³	0.031	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.45	0.42	0.38	mg / m ³	0.42	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.28	1.24	1.22	µg / m ³	1.25	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory
B.Chinna Lingana Gouda
Chief executive of the laboratory

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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 09.06.2023
- Date of Sample Receipt** : 10.06.2023
- Analysis Starting Date** : 10.06.2023
- Analysis Completion Date** : 14.06.2023
- Report Issue Date** : 15.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0417

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0770	0771	0772			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

Note: 1. The results listed only to the tested samples & applicable parameters,

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Kallahalli Village
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 09.06.2023
6. Date of Sample Receipt : 10.06.2023
7. Analysis Starting Date : 10.06.2023
8. Analysis Completion Date : 14.06.2023
9. Report Issue Date : 15.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000001790F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2504	2505	2506			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	65.8	62.7	57.3	µg / m ³	61.9	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	22.5	19.4	17.1	µg / m ³	19.7	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-24):2019	15.6	13.2	11.25	µg / m ³	13.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	18.65	16.7	15.05	µg / m ³	16.8	80
5	Ozone as O ₃	IS 5182(part-9):2019	9.2	8.7	8.4	µg / m ³	8.8	100
6	Lead	IS-5182(Part-23):2017	0.034	0.032	0.028	µg / m ³	0.031	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.45	0.42	0.38	mg / m ³	0.42	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.28	1.24	1.22	µg / m ³	1.25	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	--

Analysed by



Authorized Signatory

B.Chirna Lingana Gouda
Chief executive of the laboratory

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 09.06.2023
- Date of Sample Receipt** : 10.06.2023
- Analysis Starting Date** : 10.06.2023
- Analysis Completion Date** : 14.06.2023
- Report Issue Date** : 15.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2023/0418

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0773	0774	0775			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

- Note : 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Vyasanakere Village
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 09.06.2023
6. Date of Sample Receipt : 10.06.2023
7. Analysis Starting Date : 10.06.2023
8. Analysis Completion Date : 14.06.2023
9. Report Issue Date : 15.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000001791F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2507	2508	2509			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	65.8	62.7	57.3	µg / m ³	61.9	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	22.5	19.4	17.1	µg / m ³	19.7	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-23):2017	15.6	13.2	11.25	µg / m ³	13.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	18.65	16.7	15.05	µg / m ³	16.8	80
5	Ozone as O ₃	IS 5182(part-9):2019	9.2	8.7	8.4	µg / m ³	8.8	100
6	Lead	IS-5182(Part-23):2017	0.034	0.032	0.028	µg / m ³	0.031	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.45	0.42	0.38	mg / m ³	0.42	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.28	1.24	1.22	µg / m ³	1.25	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory
B.Chinna Lingana Gouda
Chief executive of the laboratory

- Note : 1. The results listed only to the tested samples & applicable parameters,
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vyasanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 09.06.2023
- Date of Sample Receipt** : 10.06.2023
- Analysis Starting Date** : 10.06.2023
- Analysis Completion Date** : 14.06.2023
- Report Issue Date** : 15.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0419

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0776	0777	0778			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 09.06.2023
- Date of Sample Receipt** : 10.06.2023
- Analysis Starting Date** : 10.06.2023
- Analysis Completion Date** : 14.06.2023
- Report Issue Date** : 15.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300001792F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2510	2511	2512			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	65.8	62.7	57.3	µg / m ³	61.9	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	22.5	19.4	17.1	µg / m ³	19.7	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-23):2017	15.6	13.2	11.25	µg / m ³	13.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	18.65	16.7	15.05	µg / m ³	16.8	80
5	Ozone as O ₃	IS 5182(part-9):2019	9.2	8.7	8.4	µg / m ³	8.8	100
6	Lead	IS-5182(Part-23):2017	0.034	0.032	0.028	µg / m ³	0.031	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.45	0.42	0.38	mg / m ³	0.42	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.28	1.24	1.22	µg / m ³	1.25	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

END OF REPORT

- Note: 1. The results listed only to the tested samples & applicable parameters,
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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 09.06.2023
- Date of Sample Receipt** : 10.06.2023
- Analysis Starting Date** : 10.06.2023
- Analysis Completion Date** : 14.06.2023
- Report Issue Date** : 15.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0420

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0779	0780	0781			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 13.06.2023
- Date of Sample Receipt** : 14.06.2023
- Analysis Starting Date** : 14.06.2023
- Analysis Completion Date** : 18.06.2023
- Report Issue Date** : 19.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300002096F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2982	2983	2984			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	51.7	53.4	50.5	µg / m ³	51.9	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	28.2	30.6	24.6	µg / m ³	27.8	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2):2017	8.85	11.25	8.4	µg / m ³	9.5	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	12.65	15.45	11.1	µg / m ³	13.1	80
5	Ozone as O ₃	IS 5182(part-9):2019	9.8	10.2	8.7	µg / m ³	9.6	100
6	Lead	IS-5182(Part-22):2019	0.020	0.022	0.018	µg / m ³	0.020	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.48	0.50	0.46	mg / m ³	0.48	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.20	1.22	1.77	µg / m ³	1.40	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



END OF REPORT:-

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B.Chinna Lingana Gouda
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 13.06.2023
- Date of Sample Receipt** : 14.06.2023
- Analysis Starting Date** : 14.06.2023
- Analysis Completion Date** : 18.06.2023
- Report Issue Date** : 19.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0515

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0950	0951	0952			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 13.06.2023
- Date of Sample Receipt** : 14.06.2023
- Analysis Starting Date** : 14.06.2023
- Analysis Completion Date** : 18.06.2023
- Report Issue Date** : 19.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300002097F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2985	2986	2987			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	58.2	55.4	50.3	µg / m ³	54.6	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	17.8	16.2	15.1	µg / m ³	16.4	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2):2017	10.15	9.25	7.35	µg / m ³	8.9	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	13.15	12.15	10.25	µg / m ³	11.9	80
5	Ozone as O ₃	IS 5182(part-9):2019	11.2	12.4	10.4	µg / m ³	11.3	100
6	Lead	IS-5182(Part-22):2019	0.041	00.52	0.036	µg / m ³	0.199	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.31	0.26	mg / m ³	0.28	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	2.12	3.36	1.24	µg / m ³	2.24	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 13.06.2023
- Date of Sample Receipt** : 14.06.2023
- Analysis Starting Date** : 14.06.2023
- Analysis Completion Date** : 18.06.2023
- Report Issue Date** : 19.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2023/0517

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0956	0957	0958			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 13.06.2023
- Date of Sample Receipt** : 14.06.2023
- Analysis Starting Date** : 14.06.2023
- Analysis Completion Date** : 18.06.2023
- Report Issue Date** : 19.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300002098F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2988	2989	2990			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	58.2	60.4	56.8	µg / m ³	58.5	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	26.1	28.5	24.6	µg / m ³	26.4	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-23):2017	10.95	13.3	10.55	µg / m ³	11.6	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	15.05	17.95	13.05	µg / m ³	15.4	80
5	Ozone as O ₃	IS 5182(part-9):2019	5.6	5.8	5.4	µg / m ³	5.6	100
6	Lead	IS-5182(Part-23):2017	0.076	0.078	0.074	µg / m ³	0.076	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.30	0.26	mg / m ³	0.28	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.28	1.30	1.26	µg / m ³	1.28	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

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Chief executive of the laboratory

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 13.06.2023
- Date of Sample Receipt** : 14.06.2023
- Analysis Starting Date** : 14.06.2023
- Analysis Completion Date** : 18.06.2023
- Report Issue Date** : 19.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0516

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0952	0953	0954			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

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TC- 4071

MSVAL/AA/RF/01/00

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Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
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- Date of Sample Receipt** : 14.06.2023
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- Analysis Completion Date** : 18.06.2023
- Report Issue Date** : 19.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000002099F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2991	2992	2993			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	56.1	53.1	50.9	µg / m ³	53.4	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	18.3	17.1	15.7	µg / m ³	17.0	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-23):2017	10.15	8.45	7.35	µg / m ³	8.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	16.65	14.25	12.45	µg / m ³	14.5	80
5	Ozone as O ₃	IS 5182(part-9):2019	8.7	9.2	7.4	µg / m ³	8.4	100
6	Lead	IS-5182(Part-23):2019	0.018	0.020	0.016	µg / m ³	0.018	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.38	0.41	0.36	mg / m ³	0.38	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.24	2.41	1.21	µg / m ³	1.62	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



END OF REPORT:-

Authorized Signatory

B.Chinda Lingana Gouda
Chief executive of the laboratory

- Note: 1. The results listed only to the tested samples & applicable parameters,
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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Gunda Village
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 13.06.2023
6. Date of Sample Receipt : 14.06.2023
7. Analysis Starting Date : 14.06.2023
8. Analysis Completion Date : 18.06.2023
9. Report Issue Date : 19.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2023/0518

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			0959	0960	0961			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
-----------	---

Analysed by



Authorized Signatory

B.Chinda Lingana Gouda
Chief executive of the laboratory

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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Smiore Colony
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 16.06.2023
6. Date of Sample Receipt : 17.06.2023
7. Analysis Starting Date : 17.06.2023
8. Analysis Completion Date : 22.06.2023
9. Report Issue Date : 23.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300002342F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3362	3363	3364			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	63.4	60.2	66.5	µg / m ³	63.4	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	29.8	25.3	32.3	µg / m ³	29.1	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2):2017	19.9	16.1	24.3	µg / m ³	20.1	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	28.8	24.7	32.9	µg / m ³	28.8	80
5	Ozone as O ₃	IS 5182(part-9):2019	8.5	8.3	8.7	µg / m ³	8.5	100
6	Lead	IS-5182(Part-22):2019	0.037	0.033	0.038	µg / m ³	0.036	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.27	0.25	0.29	mg / m ³	0.27	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.93	1.90	1.97	µg / m ³	1.93	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by

Authorized Signatory

Hanumanthaiah. P
Technical Manager



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Email : labmsv@gmail.com, msvbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 16.06.2023
- Date of Sample Receipt** : 17.06.2023
- Analysis Starting Date** : 17.06.2023
- Analysis Completion Date** : 22.06.2023
- Report Issue Date** : 23.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0605

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1099	1100	1101			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Kallahalli Village
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 16.06.2023
6. Date of Sample Receipt : 17.06.2023
7. Analysis Starting Date : 17.06.2023
8. Analysis Completion Date : 22.06.2023
9. Report Issue Date : 23.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300002343F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3365	3366	3367			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	51.2	47.6	55.7	µg / m ³	51.5	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	19.3	14.3	24.6	µg / m ³	19.4	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2):2017	15.3	10.9	20.1	µg / m ³	15.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	20.9	16	24.6	µg / m ³	20.5	80
5	Ozone as O ₃	IS 5182(part-9):2019	8.0	7.2	8.8	µg / m ³	8.0	100
6	Lead	IS-5182(Part-22):2019	0.036	0.033	0.037	µg / m ³	0.035	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.31	0.29	0.24	mg / m ³	0.28	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.31	1.27	1.35	µg / m ³	1.31	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	--

Analysed by



Authorized Signatory
Hanumanthaiah. P
Technical Manager

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 16.06.2023
- Date of Sample Receipt** : 17.06.2023
- Analysis Starting Date** : 17.06.2023
- Analysis Completion Date** : 22.06.2023
- Report Issue Date** : 23.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2023/0606

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1102	1103	1104			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by

Authorized Signatory

Hanumanthaiah. P
Technical Manager

:- END OF REPORT :-



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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 16.06.2023
- Date of Sample Receipt** : 17.06.2023
- Analysis Starting Date** : 17.06.2023
- Analysis Completion Date** : 22.06.2023
- Report Issue Date** : 23.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000002344F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3368	3369	3370			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	48.2	47.3	49.8	µg / m ³	48.4	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	20.3	19.6	21.6	µg / m ³	20.5	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-23):2017	14.3	13	15	µg / m ³	14.1	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	18.9	17.9	19.7	µg / m ³	18.8	80
5	Ozone as O ₃	IS 5182(part-9):2019	7.8	7.6	8.3	µg / m ³	7.9	100
6	Lead	IS-5182(Part-23):2019	0.031	0.029	0.033	µg / m ³	0.031	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.30	0.29	0.32	mg / m ³	0.30	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.25	1.22	1.28	µg / m ³	1.25	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory

Hanumanthaiah. P
Technical Manager



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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 16.06.2023
- Date of Sample Receipt** : 17.06.2023
- Analysis Starting Date** : 17.06.2023
- Analysis Completion Date** : 22.06.2023
- Report Issue Date** : 23.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0607

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1105	1106	1107			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Gunda Village
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 16.06.2023
6. Date of Sample Receipt : 17.06.2023
7. Analysis Starting Date : 17.06.2023
8. Analysis Completion Date : 22.06.2023
9. Report Issue Date : 23.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000002345F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3371	3372	3373			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	45.2	41.3	49.2	µg / m ³	45.2	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	15.3	11.2	18.8	µg / m ³	15.1	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-23):2017	8.1	6.0	12.2	µg / m ³	8.8	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	10.1	6.9	14.9	µg / m ³	10.6	80
5	Ozone as O ₃	IS 5182(part-9):2019	7.9	7.7	8.1	µg / m ³	7.9	100
6	Lead	IS-5182(Part-23):2019	0.025	0.023	0.027	µg / m ³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.24	0.22	0.26	mg / m ³	0.24	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.25	1.23	1.27	µg / m ³	1.25	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

- Note : 1. The results listed only to the tested samples & applicable parameters.
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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Gunda Village
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 16.06.2023
6. Date of Sample Receipt : 17.06.2023
7. Analysis Starting Date : 17.06.2023
8. Analysis Completion Date : 22.06.2023
9. Report Issue Date : 23.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2023/0608

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1108	1109	1110			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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NABL Accredited Laboratory

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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 20.06.2023
- Date of Sample Receipt** : 21.06.2023
- Analysis Starting Date** : 21.06.2023
- Analysis Completion Date** : 24.06.2023
- Report Issue Date** : 26.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300002630F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3695	3695	3698			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	60.2	56.3	63.3	µg / m ³	59.9	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	20.3	17.2	23.4	µg / m ³	20.3	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2):2017	11.2	9.5	15.4	µg / m ³	12.0	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	14.9	11.1	18.0	µg / m ³	14.7	80
5	Ozone as O ₃	IS 5182(part-9):2019	9.1	8.8	9.3	µg / m ³	9.07	100
6	Lead	IS-5182(Part-22):2019	0.024	0.022	0.026	µg / m ³	0.024	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.45	0.43	0.47	mg / m ³	0.45	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.27	1.25	1.29	µg / m ³	1.27	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory

Hanumanthaiah. P
Technical Manager



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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 20.06.2023
- Date of Sample Receipt** : 21.06.2023
- Analysis Starting Date** : 21.06.2023
- Analysis Completion Date** : 24.06.2023
- Report Issue Date** : 26.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0694

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1262	1263	1264			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by

Authorized Signatory

Hanumanthaiah. P
Technical Manager



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TC- 4071

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Kallahalli Village
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 20.06.2023
6. Date of Sample Receipt : 21.06.2023
7. Analysis Starting Date : 21.06.2023
8. Analysis Completion Date : 24.06.2023
9. Report Issue Date : 26.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300002631F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3698	3699	3700			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	58.3	55.3	62.3	µg / m ³	58.6	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	21.3	16.4	24.5	µg / m ³	20.7	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2):2017	11.9	13.2	21	µg / m ³	15.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	17.9	13.2	21	µg / m ³	17.4	80
5	Ozone as O ₃	IS 5182(part-9):2019	8.7	8.5	8.9	µg / m ³	8.70	100
6	Lead	IS-5182(Part-22):2019	0.023	0.021	0.025	µg / m ³	0.023	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.35	0.33	0.37	mg / m ³	0.35	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.26	1.23	1.29	µg / m ³	1.26	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 20.06.2023
- Date of Sample Receipt** : 21.06.2023
- Analysis Starting Date** : 21.06.2023
- Analysis Completion Date** : 24.06.2023
- Report Issue Date** : 26.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2023/0695

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1265	1266	1267			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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TC- 4071

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

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(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Vysanakere Village
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 20.06.2023
6. Date of Sample Receipt : 21.06.2023
7. Analysis Starting Date : 21.06.2023
8. Analysis Completion Date : 24.06.2023
9. Report Issue Date : 26.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300002632F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3701	3702	3703			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	60.2	56.3	63.2	µg / m ³	59.9	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	20.3	16.3	23.8	µg / m ³	20.1	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-6):2017	10.9	7	14.8	µg / m ³	10.9	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	16.8	14.2	20.8	µg / m ³	17.3	80
5	Ozone as O ₃	IS 5182(part-9):2019	7.92	7.88	7.95	µg / m ³	7.92	100
6	Lead	IS-5182(Part-23):2017	1.17	1.15	1.19	µg / m ³	1.17	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.23	0.21	0.25	mg / m ³	0.23	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.17	0.14	0.19	µg / m ³	0.17	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by

Authorized Signatory

Hanumanthaiah. P
Technical Manager



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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 20.06.2023
- Date of Sample Receipt** : 21.06.2023
- Analysis Starting Date** : 21.06.2023
- Analysis Completion Date** : 24.06.2023
- Report Issue Date** : 26.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0696

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1268	1269	1270			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



:- END OF REPORT

Authorized Signatory

Hanumanthaiah. P
Technical Manager

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TC- 4071

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- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 20.06.2023
- Date of Sample Receipt** : 21.06.2023
- Analysis Starting Date** : 21.06.2023
- Analysis Completion Date** : 24.06.2023
- Report Issue Date** : 26.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300002633F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3704	3705	3706			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	59.3	55.6	63.2	µg / m ³	59.4	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	21.3	16.3	24.6	µg / m ³	20.7	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-23):2017	12.1	8.1	15.3	µg / m ³	11.8	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	16.8	11.8	20.3	µg / m ³	16.3	80
5	Ozone as O ₃	IS 5182(part-9):2019	8.7	8.5	8.9	µg / m ³	8.70	100
6	Lead	IS-5182(Part-23):2019	0.025	0.022	0.028	µg / m ³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.32	0.36	mg / m ³	0.34	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.23	1.19	1.27	µg / m ³	1.23	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

- Note: 1. The results listed only to the tested samples & applicable parameters,
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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 20.06.2023
- Date of Sample Receipt** : 21.06.2023
- Analysis Starting Date** : 21.06.2023
- Analysis Completion Date** : 24.06.2023
- Report Issue Date** : 26.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0697

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1271	1272	1273			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 23.06.2023
- Date of Sample Receipt** : 24.06.2023
- Analysis Starting Date** : 24.06.2023
- Analysis Completion Date** : 26.06.2023
- Report Issue Date** : 27.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000002967F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			4058	4059	4060			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	68.2	70.2	67.2	µg / m ³	68.5	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	27.8	29.2	25.9	µg / m ³	27.6	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2):2017	11.2	12.2	10.1	µg / m ³	11.2	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	11.2	12	10	µg / m ³	11.1	80
5	Ozone as O ₃	IS 5182(part-9):2019	20.2	24.1	20.6	µg / m ³	21.6	100
6	Lead	IS-5182(Part-22):2019	0.023	0.083	0.075	µg / m ³	0.060	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.35	0.37	0.33	mg / m ³	0.35	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.24	1.23	1.20	µg / m ³	1.22	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 23.06.2023
- Date of Sample Receipt** : 24.06.2023
- Analysis Starting Date** : 24.06.2023
- Analysis Completion Date** : 26.06.2023
- Report Issue Date** : 27.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/783

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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TC- 4071

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 23.06.2023
- Date of Sample Receipt** : 24.06.2023
- Analysis Starting Date** : 24.06.2023
- Analysis Completion Date** : 26.06.2023
- Report Issue Date** : 27.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000002968F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			4031	4062	4063			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	52.4	55.8	49.3	µg / m ³	52.5	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	21.6	24.6	19.5	µg / m ³	21.9	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2):2017	11.1	12.6	9.9	µg / m ³	11.2	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	19.2	19.7	16.7	µg / m ³	18.5	80
5	Ozone as O ₃	IS 5182(part-9):2019	9.8	9.1	8.2	µg / m ³	9.0	100
6	Lead	IS-5182(Part-22):2019	0.021	0.019	0.018	µg / m ³	0.019	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.24	0.26	0.31	mg / m ³	0.27	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.38	1.35	1.31	µg / m ³	1.35	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 23.06.2023
- Date of Sample Receipt** : 24.06.2023
- Analysis Starting Date** : 24.06.2023
- Analysis Completion Date** : 26.06.2023
- Report Issue Date** : 27.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2023/784

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1429	1430	1431			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthiah. P
Technical Manager

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

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(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 23.06.2023
- Date of Sample Receipt** : 24.06.2023
- Analysis Starting Date** : 24.06.2023
- Analysis Completion Date** : 26.06.2023
- Report Issue Date** : 27.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000002969F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			4064	4065	4066			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	49.3	56.5	49.7	µg / m ³	51.8	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	17.4	24.8	20.2	µg / m ³	20.8	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-6):2017	10.2	12.3	10.4	µg / m ³	11.0	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	16	19.2	16.8	µg / m ³	17.3	80
5	Ozone as O ₃	IS 5182(part-9):2019	9.7	8.9	8.1	µg / m ³	8.9	100
6	Lead	IS-5182(Part-23):2019	0.021	0.018	0.016	µg / m ³	0.018	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.35	0.26	0.30	mg / m ³	0.30	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.40	1.32	1.30	µg / m ³	1.34	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Vysanakere Village
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 23.06.2023
6. Date of Sample Receipt : 24.06.2023
7. Analysis Starting Date : 24.06.2023
8. Analysis Completion Date : 26.06.2023
9. Report Issue Date : 27.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/785

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1432	1433	1434			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by

Authorized Signatory

Hanumanthaiah. P
Technical Manager



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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com



TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the location : Gunda Village
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of the sampling Equipments : Sample collected with RDS APM460 and FDS GTI-131
5. Date of Monitoring : 23.06.2023
6. Date of Sample Receipt : 24.06.2023
7. Analysis Starting Date : 24.06.2023
8. Analysis Completion Date : 26.06.2023
9. Report Issue Date : 27.06.2023
10. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300002970F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			4067	4068	4069			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	66.2	70.2	65.4	µg / m ³	67.3	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	26.8	28.8	24.6	µg / m ³	26.7	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-6):2017	11.6	12.8	10.8	µg / m ³	11.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	12.5	12	10.9	µg / m ³	11.8	80
5	Ozone as O ₃	IS 5182(part-9):2019	18.2	16.5	14.2	µg / m ³	16.3	100
6	Lead	IS-5182(Part-23):2019	0.025	0.032	0.028	µg / m ³	0.028	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.36	0.38	0.34	mg / m ³	0.36	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.26	1.26	1.28	µg / m ³	1.27	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by

Authorized Signatory

Hanumanthaiah. P
Technical Manager



- Note : 1. The results listed only to the tested samples & applicable parameters,
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MSV Analytical Laboratories

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Email : labmsv@gmail.com, msvlabellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvlabellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 23.06.2023
- Date of Sample Receipt** : 24.06.2023
- Analysis Starting Date** : 24.06.2023
- Analysis Completion Date** : 26.06.2023
- Report Issue Date** : 27.06.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/786

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1435	1436	1437			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 27.06.2023
- Date of Sample Receipt** : 28.06.2023
- Analysis Starting Date** : 28.06.2023
- Analysis Completion Date** : 30.06.2023
- Report Issue Date** : 01.07.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000003238F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			4722	4723	4724			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	59.8	55.2	51.1	µg / m ³	55.4	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	27.4	25.0	23.6	µg / m ³	25.3	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2):2017	10.3	8.0	8.5	µg / m ³	8.9	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	20.2	18.4	17.8	µg / m ³	18.8	80
5	Ozone as O ₃	IS 5182(part-9):2019	12.8	9.4	8.2	µg / m ³	10.1	100
6	Lead	IS-5182(Part-22):2019	0.031	0.026	0.020	µg / m ³	0.026	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.38	0.30	0.26	mg / m ³	0.31	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.89	0.80	0.75	µg / m ³	0.81	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Smiore Colony
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 27.06.2023
- Date of Sample Receipt** : 28.06.2023
- Analysis Starting Date** : 28.06.2023
- Analysis Completion Date** : 30.06.2023
- Report Issue Date** : 01.07.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0694

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1262	1263	1264			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 27.06.2023
- Date of Sample Receipt** : 28.06.2023
- Analysis Starting Date** : 28.06.2023
- Analysis Completion Date** : 30.06.2023
- Report Issue Date** : 01.07.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC40712300003239F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			4725	4726	4727			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	56.8	60.5	51.6	µg / m ³	56.3	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	17.8	21.2	14.6	µg / m ³	17.9	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2):2017	9	11.2	7.5	µg / m ³	9.2	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	11.7	13.8	10.1	µg / m ³	11.9	80
5	Ozone as O ₃	IS 5182(part-9):2019	14.2	15.6	13.4	µg / m ³	14.4	100
6	Lead	IS-5182(Part-22):2019	0.038	0.042	0.031	µg / m ³	0.037	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.13	0.18	0.10	mg / m ³	0.14	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.40	0.54	0.38	µg / m ³	0.44	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Kallahalli Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 27.06.2023
- Date of Sample Receipt** : 28.06.2023
- Analysis Starting Date** : 28.06.2023
- Analysis Completion Date** : 30.06.2023
- Report Issue Date** : 01.07.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2023/0695

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1265	1266	1267			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

- Note :
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ANALYSIS REPORT OF AMBIENT AIR QUALITY

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(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 27.06.2023
- Date of Sample Receipt** : 28.06.2023
- Analysis Starting Date** : 28.06.2023
- Analysis Completion Date** : 30.06.2023
- Report Issue Date** : 01.07.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000003240F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			4728	4729	4730			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	49.8	52.5	43.9	µg / m ³	48.7	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	19.8	21.6	17.2	µg / m ³	19.5	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-6):2017	9.1	10.5	7.8	µg / m ³	9.1	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	13.4	14.8	11.3	µg / m ³	13.2	80
5	Ozone as O ₃	IS 5182(part-9):2019	11.1	12.4	10.6	µg / m ³	11.4	100
6	Lead	IS-5182(Part-23):2019	0.021	0.026	0.019	µg / m ³	0.022	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.19	0.24	0.16	mg / m ³	0.20	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.14	0.53	0.38	µg / m ³	0.35	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vyasanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 27.06.2023
- Date of Sample Receipt** : 28.06.2023
- Analysis Starting Date** : 28.06.2023
- Analysis Completion Date** : 30.06.2023
- Report Issue Date** : 01.07.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0696

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1268	1269	1270			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



:- END OF REPORT :-

Authorized Signatory

Hanumanthaiah. P
Technical Manager

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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msvalab01@gmail.com Web ID : www.msvalbellary.com



TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 27.06.2023
- Date of Sample Receipt** : 28.06.2023
- Analysis Starting Date** : 28.06.2023
- Analysis Completion Date** : 30.06.2023
- Report Issue Date** : 01.07.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407123000003241F

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			4731	4732	4733			
1	Particulate Matter PM ₁₀	IS-5182(Part-23):2017	47.1	52.5	43.9	µg / m ³	47.8	100
2	Particulate Matter or PM _{2.5}	IS-5182(Part-24):2019	18.4	21.5	17.4	µg / m ³	19.1	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-6):2017	9.4	10.9	7.8	µg / m ³	9.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6):2017	15.6	19.1	14.2	µg / m ³	16.3	80
5	Ozone as O ₃	IS 5182(part-9):2019	8.90	9.02	8.11	µg / m ³	8.7	100
6	Lead	IS-5182(Part-22):2019	0.019	0.023	0.011	µg / m ³	0.018	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.15	0.19	0.13	mg / m ³	0.16	2
8	Ammonia as NH ₃	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m ³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.43	0.56	0.35	µg / m ³	0.45	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m ³	<0.01	6

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
-----------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

- Note : 1. The results listed only to the tested samples & applicable parameters,
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ANALYSIS REPORT OF AMBIENT AIR QUALITY

- Name and Address of Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Gunda Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sampling Equipments** : Sample collected with RDS APM460 and FDS GTI-131
- Date of Monitoring** : 27.06.2023
- Date of Sample Receipt** : 28.06.2023
- Analysis Starting Date** : 28.06.2023
- Analysis Completion Date** : 30.06.2023
- Report Issue Date** : 01.07.2023
- Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2023/0697

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1271	1272	1273			
11	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m ³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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TC- 4071

MSVAL/SE/RF/01/00

ANALYSIS REPORT FOR SOURCE EMISSION

- Name and Address of the Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Stack ID** : Coke Screening & Store
- Sample Collected By** : MSV Analytical Laboratories, Bellary
- Date of Monitoring** : 09.06.2023
- Date of Sample Receipt** : 10.06.2023
- Sample Code** : 2513
- Analysis Starting Date** : 10.06.2023
- Analysis Completion Date** : 16.06.2023
- Report Issue date** : 17.06.2023

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC40712300001793F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS_1
Fuel Used	---
Ambient Temperature (°C)	34
Stack Temperature (°C)	50
Velocity (m/s)	5.4
Height (m)	15 mtrs AGL
Diameter (m)	0.7
Cross sectional area (m ²)	0.3850

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS 11255 (Part-1): 2019	mg/Nm ³	33.4	50

INFERENCE	As per GSR 277 (E) Standards, Report Status :- The analyzed values for above measured parameter are within the limits
------------------	--

Analysed by



:- END OF REPORT

Authorized Signatory

Hanumanthaiah. P
Technical Manager

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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Stack ID : Coke Cutter
3. Sample Collected By : MSV Analytical Laboratories, Bellary
4. Date of Monitoring : 09.06.2023
5. Date of Sample Receipt : 10.06.2023
6. Sample Code : 2514
7. Analysis Starting Date : 10.06.2023
8. Analysis Completion Date : 16.06.2023
9. Report Issue date : 17.06.2023

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC407123000001794F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS_1
Fuel Used	---
Ambient Temperature (°C)	36
Stack Temperature (°C)	60
Velocity (m/s)	5.3
Height (m)	15 mtrs AGL
Diameter (m)	0.7
Cross sectional area (m ²)	0.3850

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS 11255 (Part-1): 2019	mg/Nm ³	32.4	50

INFERENCE	As per GSR 277 (E) Standards, Report Status :- The analyzed values for above measured parameter are within the limits
-----------	--

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vysanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
2. Stack ID : Coal Crushing Area
3. Sample Collected By : MSV Analytical Laboratories, Bellary
4. Date of Monitoring : 09.06.2023
5. Date of Sample Receipt : 10.06.2023
6. Sample Code : 2515
7. Analysis Starting Date : 10.06.2023
8. Analysis Completion Date : 16.06.2023
9. Report Issue date : 17.06.2023

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC407123000001795F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS_1
Fuel Used	---
Ambient Temperature (°C)	33
Stack Temperature (°C)	50
Velocity (m/s)	5.3
Height (m)	15 mtrs AGL
Diameter (m)	0.75
Cross sectional area (m ²)	0.4419

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS 11255 (Part-1): 2019	mg/Nm ³	29.1	50

INFERENCE	As per GSR 277 (E) Standards, Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by



END OF REPORT:-

Authorized Signatory

Hanumanthaiah. P
Technical Manager

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ANALYSIS REPORT FOR SOURCE EMISSION

- Name and Address of the Industry** : M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vysanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
- Stack ID** : Ferro Alloy Arc Furnace 5
- Sample Collected By** : MSV Analytical Laboratories, Bellary
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
- Sample Code** : 1895
- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 09.06.2023
- Report Issue date** : 10.06.2023

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC407123000001431F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS_1
Fuel Used	---
Ambient Temperature (°C)	34
Stack Temperature (°C)	105
Velocity (m/s)	6.1
Height (m)	35 mtrs AGL
Diameter (m)	2.5
Cross sectional area (m ²)	4.9109

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) - 2013	Nm ³ /hr	118341.624	---
Particulate Matter	IS-11255(Part-1) - 2019	mg/Nm ³	35.7	150
Sulphur dioxide	IS-11255(Part-2) - 2019	mg/Nm ³	20.3	---
Nitrogen dioxide	IS-11255(Part-7) - 2017	mg/Nm ³	28.7	---
Oxygen	IS 13270 (Orsat Apparatus USEPA 3A:1989): 2019	%	4.21	---

INFERENCE	As per GSR 277 (E) Standards, Report Status :- The analyzed values for above measured parameter are within the limits
------------------	--

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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TC- 4071

MSVAL/SE/RF/01/00

ANALYSIS REPORT FOR SOURCE EMISSION

- Name and Address of the Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Stack ID** : Ferro Alloy Arc Furnace 3
- Sample Collected By** : MSV Analytical Laboratories, Bellary
- Date of Monitoring** : 09.06.2023
- Date of Sample Receipt** : 10.06.2023
- Sample Code** : 2516
- Analysis Starting Date** : 10.06.2023
- Analysis Completion Date** : 16.06.2023
- Report Issue date** : 17.06.2023

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC40712300001796F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS_1
Fuel Used	---
Ambient Temperature (°C)	34
Stack Temperature (°C)	110
Velocity (m/s)	6.3
Height (m)	35 mtrs AGL
Diameter (m)	2.5
Cross sectional area (m ²)	4.9109

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) - 2013	Nm ³ /hr	114826.02	---
Particulate Matter	IS-11255(Part-1) - 2019	mg/Nm ³	37.1	150
Sulphur dioxide	IS-11255(Part-2) - 2019	mg/Nm ³	21.4	---
Nitrogen dioxide	IS-11255(Part-7) - 2017	mg/Nm ³	30.2	---
Oxygen	IS 13270 (Orsat Apparatus USEPA 3A:1989): 2019	%	5.21	---

INFERENCE	As per GSR 277 (E) Standards , Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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ANALYSIS REPORT FOR SOURCE EMISSION

- Name and Address of the Industry** : M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
- Stack ID** : Coke Oven Battery - Passes Through WHRB-1
- Sample Collected By** : MSV Analytical Laboratories, Bellary
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
- Sample Code** : 1893
- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 08.06.2023
- Report Issue date** : 09.06.2023

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC407123000001432F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS_1
Fuel Used	---
Ambient Temperature (°C)	36
Stack Temperature (°C)	130
Velocity (m/s)	6.3
Height (m)	60 mtrs AGL
Diameter (m)	4.6
Cross sectional area (m ²)	16.62647

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) - 2013	Nm ³ /hr	47521.3241	---
Particulate Matter	IS-11255(Part-1) - 2019	mg/Nm ³	24.1	50
Sulphur dioxide	IS-11255(Part-2) - 2019	mg/Nm ³	33.8	800
Nitrogen dioxide	IS-11255(Part-7) - 2017	mg/Nm ³	48.4	500
Oxygen	IS 13270	%	6.1	---
Carbon Monoxide	(Orsat Apparatus USEPA 3A:1989): 2019	%	0.31	Max 1%

INFERENCE	As per GSR 277 (E) Standards, Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by

Authorized Signatory

Hanumanthaiah. P
Technical Manager



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ANALYSIS REPORT FOR SOURCE EMISSION

- Name and Address of the Industry** : M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasnakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
- Stack ID** : Coke Oven Battery - Passes Through WHRB-2
- Sample Collected By** : MSV Analytical Laboratories, Bellary
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
- Sample Code** : 1894
- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 08.06.2023
- Report Issue date** : 09.06.2023

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC40712300001433F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS_1
Fuel Used	---
Ambient Temperature (°C)	35
Stack Temperature (°C)	135
Velocity (m/s)	6.5
Height (m)	60 mtrs AGL
Diameter (m)	4.6
Cross sectional area (m ²)	16.62647

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) - 2013	Nm ³ /hr	432841.3264	---
Particulate Matter	IS-11255(Part-1) - 2019	mg/Nm ³	26.2	50
Sulphur dioxide	IS-11255(Part-2) - 2019	mg/Nm ³	35.1	800
Nitrogen dioxide	IS-11255(Part-7) - 2017	mg/Nm ³	46.4	500
Oxygen	IS 13270	%	5.8	---
Carbon Monoxide	(Orsat Apparatus USEPA 3A:1989): 2019	%	0.33	Max 1%

INFERENCE	As per GSR 277 (E) Standards , Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

- Note : 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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5. Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.



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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com



TC-4071

MSVAL/SE/RF/01/00

ANALYSIS REPORT FOR SOURCE EMISSION

- Name and Address of the Industry** : M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vysanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
- Stack ID** : DG Set 750 KVA
- Sample Collected By** : MSV Analytical Laboratories, Bellary
- Date of Monitoring** : 01.06.2023
- Date of Sample Receipt** : 02.06.2023
- Sample Code** : 1895
- Analysis Starting Date** : 02.06.2023
- Analysis Completion Date** : 08.06.2023
- Report Issue date** : 09.06.2023

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC4071230000001434F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS_1
Fuel Used	---
Ambient Temperature (°C)	30
Stack Temperature (°C)	56
Velocity (m/s)	5.9
Height (m)	15 mtrs AGL
Diameter (m)	0.3
Cross sectional area (m ²)	0.0707

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part-1) - 2019	mg/Nm ³	38.7	100
Sulphur dioxide	IS-11255(Part-2) - 2019	mg/Nm ³	25.6	50
Nitrogen dioxide	IS-11255(Part-7) - 2017	mg/Nm ³	30.1	50

INFERENCE	As per GSR 277 (E) Standards , Report Status :- The analyzed values for above measured parameter are within the limits
------------------	---

Analysed by



Authorized Signatory

Hanumanthaiah. P
Technical Manager

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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com



TC- 4071

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : TC407123000003150F

Report Issued Date: 01.07.2023

- Name of the Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
 - Name of the sample** : Surface water - Tungbhadra Reservoir
 - Sample Collected By** : MSV Analytical Laboratories
 - Sample Quantity** : 2 Liters
 - Sample Description/condition** : Good/Satisfactory
 - Date of Sampling** : 26.06.2023
 - Sample Code** : 4772
 - Date of Sample Receipt** : 26.06.2023
 - Analysis Starting Date** : 27.06.2023
 - Analysis Completion date** : 01.07.2023
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Physical parameters					
1	Taste	IS : 3025(part-7)	---	Agreeable	Agreeable
2	Color	IS : 3025(part-4)	---	<1	10
3	Odor	IS : 3025(part-5)	---	Un objectionable	Un objectionable
4	pH	IS : 3025(part-11)	---	7.23	6.5-8.5
5	Conductivity	IS-3025 (part 14)	µs/cm	748	---
Chemical parameters					
6	Total Dissolved Solids	IS : 3025(part-16)	mg/l	442	500
7	Calcium as Ca	IS : 3025(part-40)	mg/l	21.3	80.10
8	Total Hardness as CaCO ₃	IS : 3025(part-21)	mg/l	141.8	300
9	Magnesium as Mg	IS : 3025(part-46)	mg/l	31.8	24.28
10	Oil & Grease	IS : 3025(part-39)	mg/l	Nil	---
11	Mineral Oil	APHA 23 rd EDITION - 5520 C	mg/l	Nil	0.01
12	Sulphate as SO ₄	IS : 3025(part-24)	mg/l	64.8	400
13	Chloride as Cl	IS : 3025(part-32)	mg/l	108.9	250
14	Nitrate as NO ₃	IS : 3025(part-34)	mg/l	3.41	20
15	Iron as Fe	IS : 3025(part-53)	mg/l	0.004	0.3
16	Fluoride as F	IS : 3025(part-60)	mg/l	0.26	1.50
17	Bio-chemical Oxygen Demand (3 days at 27°C), Max	IS 3025 (Part 44): 1993	mg/l	Nil	2
18	Dissolved Oxygen	IS 3025 (Part 38): 1993	mg/l	6.84	Min 6
19	Free CO ₂	LAB SOP	mg/l	Nil	---
20	Free Ammonia	LAB SOP	mg/l	Nil	---

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit

Report Status: - The above parameters are within limits.

Analysed by



-: END OF REPORT -:

Authorized Signatory

Ramana Gouda
Senior Chemist

- Note: 1. The results listed only to the tested samples & applicable parameters,
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MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : MSVAL/2023/0842

Report Issued Date: 01.07.2023

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the sample : Surface water - Tungabhadra Reservoir
3. Sample Collected By : MSV Analytical Laboratories
4. Sample Quantity : 2 Liters
5. Sample Description/condition : Good/Satisfactory
6. Date of Sampling : 26.06.2023
7. Sample Code : 4773
8. Date of Sample Receipt : 26.06.2023
9. Analysis Starting Date : 27.06.2023
10. Analysis Completion date : 01.07.2023

Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Chemical parameters					
21	Manganese as Mn	APHA 23 rd EDITION -3111 B	mg/l	0.016	0.5
22	Zinc as Zn	IS: 3025(part-49)	mg/l	0.024	15
23	Boron as B	APHA 23 rd EDITION -4500 B	mg/l	Nil	---
24	Barium as Ba	APHA 23 rd EDITION -3500 Ba	mg/l	0.003	1.0
25	Silver as Ag	APHA 23 rd EDITION -3500 Ag	mg/l	<0.001	0.05
26	Arsenic as As	APHA 23 rd EDITION -3112 B	mg/l	<0.002	0.05
27	Mercury as Hg	APHA 23 rd EDITION -3112 B	mg/l	<0.001	0.001
28	Lead as Pb	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.1
29	Cadmium as Cd	APHA 23 rd EDITION -3111 B	mg/l	<0.001	0.01
30	Chromium as Cr	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.05
31	Selenium as Se	APHA 23 rd EDITION -3500 B	mg/l	<0.001	0.01
32	Cyanide as CN	APHA 23 rd EDITION -4500 D	mg/l	Nil	0.05
33	Phenols	IS: 3025(part-43)	mg/l	Nil	0.002
34	Anionic Detergents as MBAS	IS : 13428-2005	mg/l	<0.1	0.2
35	Percent Sodium	LAB SOP	%	21.44	---
36	Sodium Absorption Ratio	LAB SOP	mg/l	11.1	---

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit

Report Status: - The above parameters are within limits.

Analysed by

Authorized Signatory

Ramana Gouda
Senior Chemist



-: END OF REPORT

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TC- 4071

MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No : TC407123000003151F

Report Issued Date: 01.07.2023

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Sample Type : Surface water - Tungabhadra Reservoir
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Sample Quantity : 250 ml (Sterilized Bottle)
5. Sample description/condition : Good/satisfactory
6. Date of sampling : 26.06.2023
7. Sample Code : 4774
8. Date of sample Receipt : 26.06.2023
9. Analysis Starting Date : 27.06.2023
10. Analysis Completion Date : 01.07.2023
11. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Total Coliform	IS 1622:1981	MPN/100 ml	14	50

INFERENCE	IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.
-----------	---

Analysed by

Authorized Signatory

Eshwari
Sr.Microbiologist



- Note: 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com



TC- 4071

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : TC407123000003152F

Report Issued Date: 30.03.2023

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the sample : Surface water – Canal Near Vysanakere
3. Sample Collected By : MSV Analytical Laboratories
4. Sample Quantity : 2 Liters
5. Sample Description/condition : Good/Satisfactory
6. Date of Sampling : 26.06.2023
7. Sample Code : 4775
8. Date of Sample Receipt : 26.06.2023
9. Analysis Starting Date : 27.06.2023
10. Analysis Completion date : 01.07.2023
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Physical parameters					
1	Taste	IS : 3025(part-7)	---	Agreeable	Agreeable
2	Color	IS : 3025(part-4)	---	<5	10
3	Odor	IS : 3025(part-5)	---	Un objectionable	Un objectionable
4	pH	IS : 3025(part-11)	---	7.64	6.5-8.5
5	Conductivity	IS-3025 (part 14)	µs/cm	760	---
Chemical parameters					
6	Total Dissolved Solids	IS : 3025(part-16)	mg/l	418	500
7	Calcium as Ca	IS : 3025(part-40)	mg/l	21.2	80.10
8	Total Hardness as CaCO ₃	IS : 3025(part-21)	mg/l	86.8	300
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	8.21	24.28
10	Oil & Grease	IS : 3025(part-39)	mg/l	Nil	---
11	Mineral Oil	APHA 23 rd EDITION - 5520 C	mg/l	Nil	0.01
12	Sulphate as SO ₄	IS : 3025(part-24)	mg/l	64.7	400
13	Chloride as Cl	IS : 3025(part-32)	mg/l	84.9	250
14	Nitrate as NO ₃	IS : 3025(part-34)	mg/l	0.62	20
15	Iron as Fe	IS : 3025(part-53)	mg/l	0.002	0.3
16	Fluoride as F	IS : 3025(part-60)	mg/l	0.48	1.50
17	Bio-chemical Oxygen Demand (3 days at 27°C), Max	IS 3025 (Part 44): 1993	mg/l	Nil	2
18	Dissolved Oxygen	IS 3025 (Part 38): 1993	mg/l	7.6	Min 6
19	Free CO ₂	LAB SOP	mg/l	Nil	---
20	Free Ammonia	LAB SOP	mg/l	Nil	---

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit

Report Status: - The above parameters are within limits.

Analysed by

Authorized Signatory

Ramana Gouda
Senior Chemist



:- END OF REPORT

- Note: 1. The results listed only to the tested samples & applicable parameters,
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MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : MSVAL/2023/0843

Report Issued Date: 30.03.2023

- Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
 - Name of the sample : Surface water – Canal Near Vysanakere
 - Sample Collected By : MSV Analytical Laboratories
 - Sample Quantity : 2 Liters
 - Sample Description/condition : Good/Satisfactory
 - Date of Sampling : 26.06.2023
 - Sample Code : 4776
 - Date of Sample Receipt : 26.06.2023
 - Analysis Starting Date : 27.06.2023
 - Analysis Completion date : 01.07.2023
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Chemical parameters					
21	Manganese as Mn	APHA 23 rd EDITION -3111 B	mg/l	0.010	0.5
22	Zinc as Zn	IS: 3025(part-49)	mg/l	0.022	15
23	Boron as B	APHA 23 rd EDITION -4500 B	mg/l	Nil	---
24	Barium as Ba	APHA 23 rd EDITION -3500 Ba	mg/l	0.002	1.0
25	Silver as Ag	APHA 23 rd EDITION -3500 Ag	mg/l	<0.001	0.05
26	Arsenic as As	APHA 23 rd EDITION -3112 B	mg/l	<0.002	0.05
27	Mercury as Hg	APHA 23 rd EDITION -3112 B	mg/l	<0.001	0.001
28	Lead as Pb	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.1
29	Cadmium as Cd	APHA 23 rd EDITION -3111 B	mg/l	<0.001	0.01
30	Chromium as Cr	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.05
31	Selenium as Se	APHA 23 rd EDITION -3500 B	mg/l	<0.001	0.01
32	Cyanide as CN	APHA 23 rd EDITION -4500 D	mg/l	Nil	0.05
33	Phenols	IS: 3025(part-43)	mg/l	Nil	0.002
34	Anionic Detergents as MBAS	IS : 13428-2005	mg/l	<0.1	0.2
35	Percent Sodium	LAB SOP	%	20.6	---
36	Sodium Absorption Ratio	LAB SOP	mg/l	11.3	---

INFERENCE	IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.
------------------	---

Analysed by

Authorized Signatory

Ramana Gouda
Senior Chemist

-. END OF REPORT:-



- Note: 1. The results listed only to the tested samples & applicable parameters,
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MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No : TC407123000003153F

Report Issued Date: 30.03.2023

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Sample Type : Surface water – Canal Near Vysanakere
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Sample Quantity : 250 ml (Sterilized Bottle)
5. Sample description/condition : Good/satisfactory
6. Date of Sampling : 26.06.2023
7. Sample Code : 4777
8. Date of sample Receipt : 26.06.2023
9. Analysis Starting Date : 27.06.2023
10. Analysis Completion Date : 01.07.2023
11. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Total Coliform	IS 1622:1981	MPN/100 ml	18	50

INFERENCE IS - 2296 Standards, BDL – Below Detectable Limit
Report Status: - The above parameters are within limits.

Analysed by

Authorized Signatory

Eshwari
Eshwari

Sr.Microbiologist

:- END OF REPORT



- Note: 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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TC- 4071

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : TC407123000003154F

Report Issued Date: 01.07.2023

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
 2. Name of the sample : Surface water – Dhananayakana Kere Water
 3. Sample Collected By : MSV Analytical Laboratories
 4. Sample Quantity : 2 Liters
 5. Sample Description/condition : Good/Satisfactory
 6. Date of Sampling : 26.06.2023
 7. Sample Code : 4778
 8. Date of Sample Receipt : 26.06.2023
 9. Analysis Starting Date : 27.06.2023
 10. Analysis Completion date : 01.07.2023
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Physical parameters					
1	Taste	IS : 3025(part-7)	---	Agreeable	Agreeable
2	Color	IS : 3025(part-4)	---	<5	10
3	Odor	IS : 3025(part-5)	---	Un objectionable	Un objectionable
4	pH	IS : 3025(part-11)	---	7.42	6.5-8.5
5	Conductivity	IS-3025 (part 14)	µs/cm	768	---
Chemical parameters					
6	Total Dissolved Solids	IS : 3025(part-16)	mg/l	410	500
7	Calcium as Ca	IS : 3025(part-40)	mg/l	35.8	80.10
8	Total Hardness as CaCO ₃	IS : 3025(part-21)	mg/l	102.4	300
9	Magnesium as Mg	IS : 3025(part-46)	mg/l	3.13	24.28
10	Oil & Grease	IS : 3025(part-39)	mg/l	Nil	---
11	Mineral Oil	APHA 23 rd EDITION - 5520 C	mg/l	Nil	0.01
12	Sulphate as SO ₄	IS : 3025(part-24)	mg/l	102.6	400
13	Chloride as Cl	IS : 3025(part-32)	mg/l	141.9	250
14	Nitrate as NO ₃	IS : 3025(part-34)	mg/l	2.12	20
15	Iron as Fe	IS : 3025(part-53)	mg/l	0.002	0.3
16	Fluoride as F	IS : 3025(part-60)	mg/l	0.42	1.50
17	Bio-chemical Oxygen Demand (3 days at 27°C), Max	IS 3025 (Part 44): 1993	mg/l	Nil	2
18	Dissolved Oxygen	IS 3025 (Part 38): 1993	mg/l	6.26	Min 6
19	Free CO ₂	LAB SOP	mg/l	Nil	---
20	Free Ammonia	LAB SOP	mg/l	Nil	---

INFERENCE	IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.
------------------	---

Analysed by

Authorized Signatory
Ramana Gouda
Senior Chemist



-: END OF REPORT

- Note: 1. The results listed only to the tested samples & applicable parameters,
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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : MSVAL/2023/0844

Report Issued Date: 01.07.2023

- Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
 - Name of the sample : Surface water - Dhananayakana Kere Water
 - Sample Collected By : MSV Analytical Laboratories
 - Sample Quantity : 2 Liters
 - Sample Description/condition : Good/Satisfactory
 - Date of Sampling : 26.06.2023
 - Sample Code : 4779
 - Date of Sample Receipt : 26.06.2023
 - Analysis Starting Date : 27.06.2023
 - Analysis Completion date : 01.07.2023
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Chemical parameters					
21	Manganese as Mn	APHA 23 rd EDITION -3111 B	mg/l	0.014	0.5
22	Zinc as Zn	IS: 3025(part-49)	mg/l	0.016	15
23	Boron as B	APHA 23 rd EDITION -4500 B	mg/l	Nil	---
24	Barium as Ba	APHA 23 rd EDITION -3500 Ba	mg/l	0.002	1.0
25	Silver as Ag	APHA 23 rd EDITION -3500 Ag	mg/l	<0.001	0.05
26	Arsenic as As	APHA 23 rd EDITION -3112 B	mg/l	<0.002	0.05
27	Mercury as Hg	APHA 23 rd EDITION -3112 B	mg/l	<0.001	0.001
28	Lead as Pb	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.1
29	Cadmium as Cd	APHA 23 rd EDITION -3111 B	mg/l	<0.001	0.01
30	Chromium as Cr	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.05
31	Selenium as Se	APHA 23 rd EDITION -3500 B	mg/l	<0.001	0.01
32	Cyanide as CN	APHA 23 rd EDITION -4500 D	mg/l	Nil	0.05
33	Phenols	IS: 3025(part-43)	mg/l	Nil	0.002
34	Anionic Detergents as MBAS	IS : 13428-2005	mg/l	<0.1	0.2
35	Percent Sodium	LAB SOP	%	24.2	---
36	Sodium Absorption Ratio	LAB SOP	mg/l	11.3	---

INFERENCE IS - 2296 Standards, BDL - Below Detectable Limit
Report Status: - The above parameters are within limits.

Analysed by

Authorized Signatory

Ramana Gouda
Senior Chemist



-: END OF REPORT

- Note: 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will be destroyed after 10 days, Filter papers & Thimbles will be destroyed 3 months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com



TC- 4071

MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No : TC407123000003155F

Report Issued Date: 01.07.2023

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Sample Type : Surface water - Dhananayakana Kere Water
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Sample Quantity : 250 ml (Sterilized Bottle)
5. Sample description/condition : Good/satisfactory
6. Date of Sampling : 26.06.2023
7. Sample Code : 4780
8. Date of sample Receipt : 26.06.2023
9. Analysis Starting Date : 27.06.2023
10. Analysis Completion Date : 01.07.2023
11. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Total Coliform	IS 1622:1981	MPN/100 ml	14	50

INFERENCE	IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.
------------------	---

Analysed by

Bhutta.K

Authorized Signatory

Eshwari
Eshwari

Sr.Microbiologist

:- END OF REPORT:-



- Note: 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msvalab01@gmail.com Web ID : www.msvalbellary.com



TC- 4071

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : TC407123000003156F

Report Issued Date: 01.07.2023

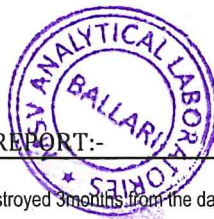
1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
 2. Name of the sample : Surface water – Water body near Narayadevarakere
 3. Sample Collected By : MSV Analytical Laboratories
 4. Sample Quantity : 2 Liters
 5. Sample Description/condition : Good/Satisfactory
 6. Date of Sampling : 26.06.2023
 7. Sample Code : 4781
 8. Date of Sample Receipt : 26.06.2023
 9. Analysis Starting Date : 27.06.2023
 10. Analysis Completion date : 01.07.2023
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Physical parameters					
1	Taste	IS : 3025(part-7)	---	Agreeable	Agreeable
2	Color	IS : 3025(part-4)	---	<5	10
3	Odor	IS : 3025(part-5)	---	Un objectionable	Un objectionable
4	pH	IS : 3025(part-11)	---	7.42	6.5-8.5
5	Conductivity	IS-3025 (part 14)	µs/cm	648	---
Chemical parameters					
6	Total Dissolved Solids	IS : 3025(part-16)	mg/l	418	500
7	Calcium as Ca	IS : 3025(part-40)	mg/l	38.4	80.10
8	Total Hardness as CaCO ₃	IS : 3025(part-21)	mg/l	151.2	300
9	Magnesium as Mg	IS : 3025(part-46)	mg/l	13.5	24.28
10	Oil & Grease	IS : 3025(part-39)	mg/l	Nil	---
11	Mineral Oil	APHA 23 rd EDITION - 5520 C	mg/l	Nil	0.01
12	Sulphate as SO ₄	IS : 3025(part-24)	mg/l	61.2	400
13	Chloride as Cl	IS : 3025(part-32)	mg/l	131.9	250
14	Nitrate as NO ₃	IS : 3025(part-34)	mg/l	1.24	20
15	Iron as Fe	IS : 3025(part-53)	mg/l	0.004	0.3
16	Fluoride as F	IS : 3025(part-60)	mg/l	0.34	1.50
17	Bio-chemical Oxygen Demand (3 days at 27°C), Max	IS 3025 (Part 44): 1993	mg/l	Nil	2
18	Dissolved Oxygen	IS 3025 (Part 38): 1993	mg/l	6.72	Min 6
19	Free CO ₂	LAB SOP	mg/l	Nil	---
20	Free Ammonia	LAB SOP	mg/l	Nil	---

INFERENCE	IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.
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Analysed by

Authorized Signatory
Ramesh Gouda
Senior Chemist



:- END OF REPORT:-

- Note: 1. The results listed only to the tested samples & applicable parameters,
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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : MSVAL/2023/0845

Report Issued Date: 01.07.2023

- Name of the Industry** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
 - Name of the sample** : Surface water – Water body near
Narayadevarakere
 - Sample Collected By** : MSV Analytical Laboratories
 - Sample Quantity** : 2 Liters
 - Sample Description/condition** : Good/Satisfactory
 - Date of Sampling** : 26.06.2023
 - Sample Code** : 4782
 - Date of Sample Receipt** : 26.06.2023
 - Analysis Starting Date** : 27.06.2023
 - Analysis Completion date** : 01.07.2023
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS – 2296
Chemical parameters					
21	Manganese as Mn	APHA 23 rd EDITION -3111 B	mg/l	0.013	0.5
22	Zinc as Zn	IS: 3025(part-49)	mg/l	0.015	15
23	Boron as B	APHA 23 rd EDITION -4500 B	mg/l	Nil	---
24	Barium as Ba	APHA 23 rd EDITION -3500 Ba	mg/l	0.002	1.0
25	Silver as Ag	APHA 23 rd EDITION -3500 Ag	mg/l	<0.001	0.05
26	Arsenic as As	APHA 23 rd EDITION -3112 B	mg/l	<0.002	0.05
27	Mercury as Hg	APHA 23 rd EDITION -3112 B	mg/l	<0.001	0.001
28	Lead as Pb	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.1
29	Cadmium as Cd	APHA 23 rd EDITION -3111 B	mg/l	<0.001	0.01
30	Chromium as Cr	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.05
31	Selenium as Se	APHA 23 rd EDITION -3500 B	mg/l	<0.001	0.01
32	Cyanide as CN	APHA 23 rd EDITION -4500 D	mg/l	Nil	0.05
33	Phenols	IS: 3025(part-43)	mg/l	Nil	0.002
34	Anionic Detergents as MBAS	IS : 13428-2005	mg/l	<0.1	0.2
35	Percent Sodium	LAB SOP	%	24.2	---
36	Sodium Absorption Ratio	LAB SOP	mg/l	9.8	---

INFERENCE	IS – 2296 Standards, BDL – Below Detectable Limit Report Status: - The above parameters are within limits.
------------------	---

Analysed by

Authorized Signatory

Ramana Gouda
Senior Chemist

ANALYTICAL LABORATORIES
BALLARI
-: END OF REPORT

- Note: 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No : TC407123000003157F

Report Issued Date: 01.07.2023

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Sample Type : Surface water - Water body near Narayadevarakere
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Sample Quantity : 250 ml (Sterilized Bottle)
5. Sample description/condition : Good/satisfactory
6. Date of Sampling : 26.06.2023
7. Sample Code : 4783
8. Date of sample Receipt : 26.06.2023
9. Analysis Starting Date : 27.06.2023
10. Analysis Completion Date : 01.07.2023
11. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Total Coliform	IS 1622:1981	MPN/100 ml	18	50

INFERENCE	IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.
------------------	---

Analysed by

Eshwari

Authorized Signatory

Eshwari

Eshwari

Sr.Microbiologist

-: END OF REPORT



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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msvalab01@gmail.com Web ID : www.msvalbellary.com/13/00-4071



ANALYSIS REPORT OF WATER QUALITY

Test Report No : TC407123000003158F

Report Issued Date: 01.07.2023

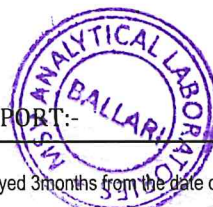
1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
 2. Name of the sample : Surface water - Pond Water Ayyanahalli
 3. Sample Collected By : MSV Analytical Laboratories
 4. Sample Quantity : 2 Liters
 5. Sample Description/condition : Good/Satisfactory
 6. Date of Sampling : 26.06.2023
 7. Sample Code : 4784
 8. Date of Sample Receipt : 26.06.2023
 9. Analysis Starting Date : 27.06.2023
 10. Analysis Completion Date : 01.07.2023
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Physical parameters					
1	Taste	IS : 3025(part-7)	---	Agreeable	Agreeable
2	Color	IS : 3025(part-4)	---	<5	10
3	Odor	IS : 3025(part-5)	---	Un objectionable	Un objectionable
4	pH	IS : 3025(part-11)	---	7.23	6.5-8.5
5	Conductivity	IS-3025 (part 14)	µs/cm	751	---
Chemical parameters					
6	Total Dissolved Solids	IS : 3025(part-16)	mg/l	462	500
7	Calcium as Ca	IS : 3025(part-40)	mg/l	44.8	80.10
8	Total Hardness as CaCO ₃	IS : 3025(part-21)	mg/l	182.3	300
9	Magnesium as Mg	IS : 3025(part-46)	mg/l	17.0	24.28
10	Oil & Grease	IS : 3025(part-39)	mg/l	Nil	---
11	Mineral Oil	APHA 23 rd EDITION - 5520 C	mg/l	Nil	0.01
12	Sulphate as SO ₄	IS : 3025(part-24)	mg/l	24.2	400
13	Chloride as Cl	IS : 3025(part-32)	mg/l	96.4	250
14	Nitrate as NO ₃	IS : 3025(part-34)	mg/l	0.92	20
15	Iron as Fe	IS : 3025(part-53)	mg/l	0.003	0.3
16	Fluoride as F	IS : 3025(part-60)	mg/l	0.43	1.50
17	Bio-chemical Oxygen Demand (3 days at 27°C), Max	IS 3025 (Part 44): 1993	mg/l	Nil	2
18	Dissolved Oxygen	IS 3025 (Part 38): 1993	mg/l	7.13	Min 6
19	Free CO ₂	LAB SOP	mg/l	Nil	---
20	Free Ammonia	LAB SOP	mg/l	Nil	---

INFERENCE	IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.
------------------	---

Analysed by

Authorized Signatory
Ramana Gouda
Senior Chemist



:- END OF REPORT:-

- Note: 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : MSVAL/2023/0846

Report Issued Date: 01.07.2023

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
 2. Name of the sample : Surface water - Pond Water Ayyanahalli
 3. Sample Collected By : MSV Analytical Laboratories
 4. Sample Quantity : 2 Liters
 5. Sample Description/condition : Good/Satisfactory
 6. Date of Sampling : 26.06.2023
 7. Sample Code : 4785
 8. Date of Sample Receipt : 26.06.2023
 9. Analysis Starting Date : 27.06.2023
 10. Analysis Completion date : 01.07.2023
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Chemical parameters					
21	Manganese as Mn	APHA 23 rd EDITION -3111 B	mg/l	0.010	0.5
22	Zinc as Zn	IS: 3025(part-49)	mg/l	0.016	15
23	Boron as B	APHA 23 rd EDITION -4500 B	mg/l	Nil	---
24	Barium as Ba	APHA 23 rd EDITION -3500 Ba	mg/l	0.002	1.0
25	Silver as Ag	APHA 23 rd EDITION -3500 Ag	mg/l	<0.001	0.05
26	Arsenic as As	APHA 23 rd EDITION -3112 B	mg/l	<0.002	0.05
27	Mercury as Hg	APHA 23 rd EDITION -3112 B	mg/l	<0.001	0.001
28	Lead as Pb	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.1
29	Cadmium as Cd	APHA 23 rd EDITION -3111 B	mg/l	<0.001	0.01
30	Chromium as Cr	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.05
31	Selenium as Se	APHA 23 rd EDITION -3500 B	mg/l	<0.001	0.01
32	Cyanide as CN	APHA 23 rd EDITION -4500 D	mg/l	Nil	0.05
33	Phenols	IS: 3025(part-43)	mg/l	Nil	0.002
34	Anionic Detergents as MBAS	IS: 13428-2005	mg/l	<0.1	0.2
35	Percent Sodium	LAB SOP	%	22.4	---
36	Sodium Absorption Ratio	LAB SOP	mg/l	10.3	---

INFERENCE	IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.
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Analysed by

Authorized Signatory
Ramana Gouda
Senior Chemist

--: END OF REPORT

- Note: 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.
5. Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.



MSV Analytical Laboratories

(Certified by ISO 14001-2015, ISO 45001-2018, ISO 9001-2015, ISO 22000:2018)

NABL Accredited Laboratory

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MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No : TC407123000003159F

Report Issued Date: 01.07.2023

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Sample Type : Surface water – Pond Water Ayyanahalli
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Sample Quantity : 250 ml (Sterilized Bottle)
5. Sample description/condition : Good/satisfactory
6. Date of Sampling : 26.06.2023
7. Sample Code : 4786
8. Date of sample Receipt : 26.06.2023
9. Analysis Starting Date : 27.06.2023
10. Analysis Completion Date : 01.07.2023
11. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	Standards as per IS – 2296
Total Coliform	IS 1622:1981	MPN/100 ml	24	50

INFERENCE IS – 2296 Standards, BDL – Below Detectable Limit
Report Status: - The above parameters are within limits.

Analysed by

Rhoshika . S

Authorized Signatory

Eshwari
Eshwari

Sr.Microbiologist

:- END OF REPORT



Note: 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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