# 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

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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

5th June 2023

Ref No: SMIORE/PLANT/ENV/MR/2023-24/ 7-3

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 May-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 May-2023 for your kind information.

Kindly acknowledge receipt of the same.

Thanking you,

The Sandur Manganese & Iron Ores Limited,

Authorized Signatory

ಪ್ರಾದೇಶಿಕ ಕಭೇರಿ ವಿಜಯನಗರ, ಹೊಸಹೆತಿಸಿ ದಿವಾಂಕ: ಪ್ರಹಿತಿ



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

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, 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.

2. Name of the location **Smiore Colony** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary,

Particulars of the sampling Equipments 4.

Sample collected with RDS APM460 and FDS GTI-131

**Date of Monitoring** 5.

03.05.2023

6. **Date of Sample Receipt**  04.05.2023

Sample Code 7.

8441

**Analysis Starting Date** 8.

04.05.2023

**Analysis Completion Date** 9.

06.05.2023

**Report Issue Date** 10.

08.05.2023

Sampling Protocol

IS 5182: Part 14: 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/7743

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result	Tolerance
	70		1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23)	56.1	57.2	55.3	μg / m³	56.2	100
2	Particulate Matter or PM <sub>2.5</sub>	LAB SOP MSVAL/SOP/A/005	27.4	28.6	26.8	μg / m³	27.6	60
3	Sulphur Dioxide as SO <sub>2</sub>	IS-5182(Part-2)	9.6	10.8	8.8	$\mu g / m^3$	9.7	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6)	15.6	16.7	14.9	μg / m³	15.7	80
5 .	Ozone as O <sub>3</sub>	IS 518 <mark>2(par</mark> t-9)	11.2	11.1	11.6	μg / m³	11.3	100
6	Lead	IS-5182(Part22)	0.032	0.033	0.031	μg / m³	0.032	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.41	0.43	0.46	mg/m³	0.43	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.26	1.25	1.24	μg / m³	1.25	20

INFERENCE

As per NAAQS Standards

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

Analysed by

~ Lel 1 **B.Chinna Lingana Gouda** Chief executive of the laboratory

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.



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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.

Name of the location : Sm

Smiore ColonyMSV Analytical Laboratories, Bellary.

Sample Collected By
 Particulars of the sampling Equipments

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Monitoring : 03.05.2023
6. Date of Sample Receipt : 04.05.2023
7. Sample Code : 8441

Sample Code
 Analysis Starting Date

: 8441 : 04.05.2023

9. Analysis Completion Date 10. Report Issue Date

: 06.05.2023 : 08.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

2

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/7743

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
	12		1	2	3		Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11)	<0.01	< 0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<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 Gou

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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1



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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.

2. Name of the location Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments

Sample collected with RDS APM460 and FDS GTI-131

**Date of Monitoring** 5.

03.05.2023

**Date of Sample Receipt** 6. Sample Code 7.

04.05.2023 8442

**Analysis Starting Date** 8.

04.05.2023

9. **Analysis Completion Date** 10. **Report Issue Date** 

06.05.2023 08.05.2023

Sampling Protocol 11.

IS 5182: Part 14: 2019

**Discipline: Chemical** 

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/7744

S.No	Parameter	Protocols	Shi	ft wise resu	ılts	Units	Result	Tolerance
1000 (Manager 1 50)	70	New Visional Alexandrian State Co.	1	2	3	entropy and extraorders	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23)	55.4	54.3	53.4	μg / m³	54.4	100
2	Particulate Matter or PM <sub>2.5</sub>	LAB SOP MSVAL/SOP/A/005	17.2	16.1	15.6	μg / m³	16.3	60
3	Sulphur Dioxide as SO <sub>2</sub>	IS-5182(Part-2)	6.9	5.7	4.9	μg / m³	5.8	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6)	12.6	11.7	10.7	μg / m³	11.7	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)	8.1	8.0	7.9	μg / m³	8.0	100
6	Lead	IS-5182(Part22)	0.029	0.028	0.027	μg / m³	0.028	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.27	0.30	0.020	mg/m³	0.20	2
8	Ammonia as NH₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.34	1.33	1.32	μg / m³	1.33	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

<sup>2.</sup> 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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#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Name and Address of Industry 1.

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location 2.

Kallahalli Village

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS APM460 and FDS GTI-131

**Date of Monitoring** Date of Sample Receipt 6.

03.05.2023 04.05.2023

8442

Sample Code 7.

04.05.2023

**Analysis Starting Date** 8.

06.05.2023

**Analysis Completion Date** 9. 10. **Report Issue Date** 

08.05.2023

**Sampling Protocol** 11.

IS 5182: Part 14: 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/7744

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
V-4800-0-000	12	Office 1 delandores and observe	1	2	3		Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11)	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	1
12	Arsenic as As	CPCB Procedur <mark>e</mark>	<0.01	< 0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

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

Vysanakere Village

3. Sample Collected By

MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments5. Date of Monitoring

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Monitoring6. Date of Sample Receipt

03.05.2023 04.05.2023

7. Sample Code

8443

8. Analysis Starting Date9. Analysis Completion Date

04.05.2023 06.05.2023

10. Report Issue Date

: 06.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/7745

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
			1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23)	52.4	51.3	50.7	μg / m³	51.5	100
2	Particulate Matter or PM <sub>2.5</sub>	LAB SOP MSVAL/SOP/A/005	18.3	17.6	16.4	μg / m³	17.4	60
3	Sulphur Dioxide as SO <sub>2</sub>	IS-5182(Part-2)	10	8.6	7.6	μg / m³	8.7	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6)	16.0	14.9	14.2	μg / m³	15.0	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)	9.1	9.0	8.9	μg / m³	9.0	100
6	Lead	IS-5182(Part22)	0.021	0.020	0.019	μg / m³	0.020	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.26	0.28	0.24	mg/m³	0.26	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.34	1.33	1.32	μg / m³	1.33	20

INFERENCE

As per NAAQS Standards

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

Analysed by

BALLARI PA

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.

2. Name of the location Vysanakere Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments Sample collected with RDS APM460 and FDS GTI-131

**Date of Monitoring** 5.

03.05.2023

**Date of Sample Receipt** 

04.05.2023

Sample Code 7.

8443

8. **Analysis Starting Date**  04.05.2023

**Analysis Completion Date** 9.

06.05.2023

**Report Issue Date** 10.

08.05.2023

Sampling Protocol

IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/7745

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits
			1	2	3	5	Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11)	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

B.Chima Lingana Gouda Chief executive of the laboratory

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#### **ANALYSIS REPORT OF AMBIENT AIR QUALITY**

Name and Address of Industry 1.

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vvasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location 2.

**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

**Date of Monitoring** Date of Sample Receipt 6.

03.05.2023

Sample Code

04.05.2023

7. **Analysis Starting Date** 8.

8444 04.05.2023

**Analysis Completion Date** 9.

06.05.2023

10. Report Issue Date 08.05.2023

**Sampling Protocol** 11.

IS 5182: Part 14: 2019

ULR No: MSVAL/2023/7746

**Discipline: Chemical** 

Group: Atmospheric Pollution

Sub Group: Ambient Air

S.No	Parameter	Protocols	Shi	ft wise resi	ults	Units	Result	Tolerance
Dirio	T drumeter	C 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1/	2	3	Omes	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23)	55.1	56.8	54.2	μg / m³	55.4	100
2	Particulate Matter or PM <sub>2.5</sub>	LAB SOP MSVAL/SOP/A/005	15.3	16.4	14.6	μg / m³	15.4	60
3	Sulphur Dioxide as SO <sub>2</sub>	IS-5182(Part-2)	7.6	8.8	6.6	μg / m³	7.7	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6)	10.7	11.9	9.9	μg / m³	10.8	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)	8.1	8.0	7.9	μg / m³	8.0	100
6	Lead	IS-5182(Part22)	<0.01	<0.01	<0.01	μg / m³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.31	0.33	0.30	mg/m³	1.31	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	<0.01	<0.01	<0.01	µg / m³	<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. Chimha Lingana Gouda Chief executive of the laboratory

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

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: 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

03.05.2023

6. Date of Sample Receipt

04.05.2023

7. Sample Code

8444

8. Analysis Starting Date

04.05.2023

9. Analysis Completion Date

06.05.2023

10. Report Issue Date

08.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/7746

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
			1	2	3	, <u> </u>	Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11)	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<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,

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.



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

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

67

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

: 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 Monitoring6. Date of Sample Receipt

: 05.05.2023 : 06.05.2023

7. Sample Code

: 8603

8. Analysis Starting Date

: 06.05.2023

9. Analysis Completion Date

: 06.05.2023

10. Report Issue Date

10.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/7883

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
	10		1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23)	56.4	55.3	54.2	μg / m³	55.3	100
2	Particulate Matter or PM <sub>2.5</sub>	LAB SOP MSVAL/SOP/A/005	27.8	26.4	25.4	μg / m³	26.5	60
3	Sulphur Dioxide as SO <sub>2</sub>	IS-5182(Part-2)	9.8	8.7	7.6	μg / m³	8.7	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6)	16.2	15.7	13.8	μg / m³	15.2	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)	12.2	12.0	11.8	μg / m³	12.0	100
6	Lead	IS-5182(Part22)	0.032	0.030	0.028	μg / m³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.41	0.38	0.36	mg/m³	0.38	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.32	1.30	1.28	μg / m³	1.30	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,

<sup>2.</sup> 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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<sup>4.</sup> Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.

<sup>5.</sup> 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

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

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments

Sample collected with RDS APM460 and FDS GTI-131

**Date of Monitoring** 5.

05.05.2023

**Date of Sample Receipt** 

06.05.2023

7. Sample Code

**Analysis Starting Date** 8.

8603

9. **Analysis Completion Date**  06.05.2023 09.05.2023

10.05.2023

10. **Report Issue Date** 

**Sampling Protocol** 11.

IS 5182: Part 14: 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/7883

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
	- For		1	2	3	1	Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11)	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

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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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.



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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**

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 Monitoring6. Date of Sample Receipt

: 05.05.2023 : 06.05.2023

7. Sample Code

. 00.03

8. Analysis Starting Date

8604

9. Analysis Completion Date

: 06.05.2023 : 09.05.2023

10. Report Issue Date

: 10.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/7884

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
	100		1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23)	54.8	53.6	52.8	μg / m³	53.7	100
2	Particulate Matter or PM <sub>2.5</sub>	LAB SOP MSVAL/SOP/A/005	19.4	18.3	17.4	μg / m³	18.4	60
3	Sulphur Dioxide as SO <sub>2</sub>	IS-5182(Part-2)	9.2	8.6	7.8	μg / m³	8.5	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6)	13.8	12.6	10.3	μg / m³	12.2	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)	7.9	7.4	7.0	μg / m³	7.4	100
6	Lead	IS-5182(Part22)	0.030	0.020	0.026	μg / m³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.26	0.23	mg/m³	0.26	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.38	1.34	1.30	μg / m³	1.34	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

<sup>2.</sup> 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.

<sup>3.</sup> 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.

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<sup>5.</sup> 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

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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

Sample Collected By
 Particulars of the sampling Equipments

: MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Monitoring6. Date of Sample Receipt

05.05.2023 06.05.2023

6. Date of Sample7. Sample Code

8604

8. Analysis Starting Date

06.05.2023

9. Analysis Completion Date

09.05.2023

10. Report Issue Date

Discipline: Chemical

10.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

Sub Group: Ambient Air

ULR No: MSVAL/2023/7884

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
	10		1	2	3	300, 100, 100, 100, 100, 100, 100, 100,	Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11)	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	6

**INFERENCE** 

As per NAAQS Standards

**Group: Atmospheric Pollution** 

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

Analysed by



B.Chinna Lingana Gouda
Chief executive of the laboratory

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

<sup>2.</sup> 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

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#### **ANALYSIS REPORT OF AMBIENT AIR QUALITY**

Name and Address of Industry 1.

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location 2

Sample Collected By 3.

Particulars of the sampling Equipments 4.

5. **Date of Monitoring** Date of Sample Receipt 6.

7. Sample Code

**Analysis Starting Date** 8. 9. **Analysis Completion Date** 10. **Report Issue Date** 

**Sampling Protocol** 

Vysanakere Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

05.05.2023 06.05.2023

8605

06.05.2023 09.05.2023

10.05.2023

IS 5182: Part 14: 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/7885

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result in Avg.	Tolerance
			1	2	3		ın Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23)	52.8	51.6	50.4	μg / m³	51.6	100
2	Particulate Matter or PM <sub>2.5</sub>	LAB SOP MSVAL/SOP/A/005	18.3	17.4	16.8	μg / m³	17.5	60
3	Sulphur Dioxide as SO <sub>2</sub>	IS-5182(Part-2)	11.0	9.9	9.3	μg / m³	10.1	80 ·
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6)	16.6	15.6	14.3	μg / m <sup>3</sup>	15.5	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)	8.1	7.8	7.6	μg / m³	7.8	100
6	Lead	IS-5182(Part22)	< 0.01	<0.01	<0.01	μg / m³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.27	0.25	0.23	mg/m³	0.25	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	<0.01	<0.01	<0.01	μg / m³	<0.01	20

INFERENCE

As per NAAQS Standards

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

B. Chinha Lingana Gouda Chief executive of the laboratory

Authorized Signatory

<sup>2.</sup> 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/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 Allovs Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

2. Name of the location

: Vysanakere Village

3. Sample Collected By4. Particulars of the sampling Equipments

: MSV Analytical Laboratories, Bellary.

nents : Sample collected with RDS APM460 and FDS GTI-131 : 05.05.2023

5. Date of Monitoring6. Date of Sample Receipt

06.05.2023

7. Sample Code

8605

8. Analysis Starting Date

06.05.2023

9. Analysis Completion Date

09.05.2023

10. Report Issue Date11. Sampling Protocol

10.05.2023

11. Samping riotoco

IS 5182 : Part 14 : 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/7885

S.No	Parameter	Sh	ift wise re	esults	Units	Result in	Tolerance	
			1	2	3		Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11)	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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





Authorized Signatory

B.Chima Lingana Gouda

Chief executive of the laboratory

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

<sup>2.</sup> 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

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.

Sub Group: Ambient Air

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 Monitoring6. Date of Sample Receipt

: 05.05.2023

Date of Sample Recei
 Sample Code

: 06<mark>.05.2023</mark>

8. Analysis Starting Date

86<mark>0</mark>6 06.05.2023

9. Analysis Completion Date

09.05.2023

10. Report Issue Date

10.05.2023

11. Sampling Protocol

Discipline: Chemical

IS 5182 : Part 14 : 2019

ULR No: MSVAL/2023/7886

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result	Tolerance
			1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23)	56.4	55.3	54.2	μg / m³	55.3	100
2	Particulate Matter or PM <sub>2.5</sub>	LAB SOP MSVAL/SOP/A/005	27.8	26.4	25.4	μg / m³	26.5	60
3	Sulphur Dioxide as SO <sub>2</sub>	IS-5182(Part-2)	9.8	8.7	7.6	μg / m³	8.7	80
4	Oxides of Nitrog <mark>en</mark> as NO <sub>x</sub>	IS-5182(Part-6)	16.2	15.7	13.8	μg / m³	15.2	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)	12.2	12.0	11.8	μg / m³	12.0	100
6	Lead	IS-5182(Part22)	0.032	0.030	0.028	μg / m³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.41	0.38	0.36	mg/m³	0.38	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	<0.01	<0.01	<0.01	μg / m³	<0.01	20

INFERENCE

As per NAAQS Standards

**Group: Atmospheric Pollution** 

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

Analysed by

END OF REPORT 2

B. Chima Lingana Gouda Chief executive of the laboratory

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

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<sup>2.</sup> 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.



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

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MSVAL/AA/RF/01/00

#### **ANALYSIS REPORT OF AMBIENT AIR QUALITY**

Name and Address of Industry 1.

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location 2.

**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** Date of Sample Receipt 05.05.2023

6. Sample Code 7.

06.05.2023 8606

**Analysis Starting Date** 8. 9. **Analysis Completion Date**  06.05.2023 09.05.2023

10. **Report Issue Date**  10.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

**Discipline: Chemical** 

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/7886

S.No	Parameter	Sh	ift wise re	esults	Units	Result in	Tolerance		
	14		1	2	3	1	Avg.	limits	
10	Benzene as C <sub>6</sub> H <sub>6</sub>		IS:5182(part 11)	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)		CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	1
12	Arsenic as As		CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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





B.Chima Lingana Gouda Chief executive of the laboratory

<sup>2.</sup> 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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<sup>4.</sup> Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.

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



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

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

: 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 Monitoring6. Date of Sample Receipt

09.05.2023

7. Sample Code

10.05.2023 8997

8. Analysis Starting Date

10.05.2023

9. Analysis Completion Date

**Sampling Protocol** 

12.05.2023

10. Report Issue Date

: 13.05.2023 : IS 5182 : Part 14 : 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/8209

S.No	Parameter	Protocols	Shif	t wise resi	ults	Units	Result	Tolerance
3.140	T dit difficient	Trotocols	1	2	3	Omes	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	50.4	56.6	48.9	μg / m³	52.0	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	16.7	18.4	14.7	μg / m³	16.6	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	11.7	9.5	8.7	μg / m³	10.0	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	11.8	13.9	12.4	μg / m³	12.7	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	8.7	9.3	9.2	μg / m³	9.1	100
6	Lead	IS-5182(Part-22):2019	0.030	0.025	0.020	μg / m³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.33	0.34	0.22	mg/m³	0.30	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.22	1.29	1.24	μg / m³	1.25	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

TICAL LABOR

B.Chinna Lingana Gouda
Chief executive of the laboratory

**Authorized Signatory** 

<sup>2.</sup> 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/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.

2. Name of the location **Smiore Colony** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments Sample collected with RDS APM460 and FDS GTI-131

**Date of Monitoring** 5.

09.05.2023

**Date of Sample Receipt** 6.

10.05.2023

Sample Code 7.

8997

**Analysis Starting Date** 8.

10.05.2023

9. **Analysis Completion Date**  12.05.2023

**Report Issue Date** 10. **Sampling Protocol**  13.05.2023 IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/8209

S.No	Parameter Protocols		Sh	ift wise re	sults	Units	Result in	Tolerance
			1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<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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**B.Chinna Lingana Gouda** Chief executive of the laboratory

<sup>2.</sup> 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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#### **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 2.

Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments Sample collected with RDS APM460 and FDS GTI-131

**Date of Monitoring** 5. **Date of Sample Receipt**  09.05.2023

6. Sample Code 7.

10.05.2023

8. **Analysis Starting Date**  8998 10.05.2023

9 **Analysis Completion Date** 

12.05.2023

10. **Report Issue Date**  13.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/8210

S.No	Parameter	Protocols	Shit	ft wise res	ults	Units	Result	Tolerance
	1	V	1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	53.4	50.6	48.8	$\mu g / m^3$	50.9	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	19.6	17.4	15.9	μg / m³	17.6	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	10.8	9.6	8.6	μg / m³	9.7	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	13.8	11.1	10.5	μg / m³	11.8	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	8.6	8.4	8.0	μg / m³	8.3	100
6	Lead	IS-5182(Part-22):2019	0.031	0.027	0.023	μg / m³	0.027	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.30	0.27	mg/m³	0.30	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.28	1.24	1.20	μg / m³	1.24	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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

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.

Name of the location : Kallahalli Village

: MSV Analytical Laboratories, Bellary.

Sample Collected By
 Particulars of the sampling Equipments

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Monitoring6. Date of Sample Receipt

09.05.2023

7. Sample Code

2.

10.05.2<mark>023</mark> 8998

8. Analysis Starting Date

10.05.2023

9. Analysis Completion Date

12.05.2023

10. Report Issue Date11. Sampling Protocol

: 13.05.2023 : IS 5182 : Part 14 : 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/8210

S.No	Parameter	Protocols	Shift wis		ft wise results		Result in	Tolerance
			1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<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:BALLARI

754

53

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

<sup>2.</sup> 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/AA/RF/01/00

#### **ANALYSIS REPORT OF AMBIENT AIR QUALITY**

L. 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

: 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

09.05.2023

6. Date of Sample Receipt

: 10.05.2023

7. Sample Code 8. Analysis Starting D : 8999 : 10.05.2023

8. Analysis Starting Date9. Analysis Completion Date

12.05.2023

10. Report Issue Date

: 13.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/8211

S.No	Parameter	Protocols	Shif	t wise resu	ılts	Units	Result	Tolerance
50		1100000	1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	50.3	48.3	46.2	μg / m³	48.3	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	15.8	13.1	12.6	μg / m³	13.8	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	8.9	7.3	6.7	μg / m³	7.6	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	13.8	11.7	9.5	μg / m³	11.7	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	7.8	7.4	7.0	μg / m³	7.4	100
6	Lead	IS-5182(Part-22):2019	<0.01	<0.01	< 0.01	μg / m³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.26	0.24	mg/m³	0.26	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	<0.01	<0.01	<0.01	μg / m³	<0.01	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

ENDEAR PORT

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

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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<sup>5.</sup> 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

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

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 Monitoring6. Date of Sample Receipt

09.05.2023

7. Sample Code

10.05.2023 8999

8. Analysis Starting Date

10.05.2023

9. Analysis Completion Date

12.05.2023

10. Report Issue Date

13.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/8211

S.No	Parameter	Protocols	Sh	Shift wise results			Result in	Tolerance limits
	12		1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<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,

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.



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MSVAL/AA/RF/01/00

#### **ANALYSIS REPORT OF AMBIENT AIR QUALITY**

Name and Address of Industry 1.

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.

Particulars of the sampling Equipments 4.

Sample collected with RDS APM460 and FDS GTI-131

5. **Date of Monitoring**  09.05.2023

**Date of Sample Receipt** 6.

10.05.2023

7. Sample Code 9000

8. **Analysis Starting Date**  10.05.2023

**Analysis Completion Date** 9. 10. **Report Issue Date** 

12.05.2023 13.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/8212

S.No	Parameter	Protocols	Shif	ft wise resi	ults	Units	Result	Tolerance limits
5	4	V	1	2	3		in Avg.	
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	48.2	46.8	44.2	μg / m³	46.4	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	17.8	15.4	13.8	μg / m³	15.7	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9.8	7.5	6.6	μg / m³	8.0	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	18.4	16.2	13.7	μg / m³	16.1	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	8.4	8.0	7.6	μg / m³	8.1	100
6	Lead	IS-5182(Part-22):2019	0.028	0.026	0.024	μg / m³	0.026	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.24	0.20	0.18	mg/m³	0.21	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	<0.01	<0.01	<0.01	μg / m³	<0.01	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

B.Chinna Lingana Gouda Chief executive of the laboratory

<sup>2.</sup> 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.

<sup>3.</sup> 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.

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<sup>5.</sup> 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, (0): 9945456764, 08392-255169

Email: labmsv@gmail.com, msvalbellarv2018@gmail.com, msv.lab01@gmail.com Web ID: www.msvalbellarv.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.

Name of the location 2.

Sample Collected By 3.

**Gunda Village** MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS APM460 and FDS GTI-131

**Date of Monitoring** 5.

09.05.2023

**Date of Sample Receipt** 6. 7. Sample Code

10.05.2023

9000

**Analysis Starting Date** 8. 9. **Analysis Completion Date**  10.05.2023

10. **Report Issue Date**  12.05.2023 13.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

**Group: Atmospheric Pollution** Discipline: Chemical

Sub Group: Ambient Air

ULR No: MSVAL/2023/8212

S.No	Parameter	Protocols	Shift wise res		Shift wise results		Shift wise results		Shift wise results Units		Result in	Tolerance
			1	2	3		Avg.	limits				
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5				
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<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

OF REPORT:

<sup>2.</sup> 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.

<sup>3.</sup> 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.

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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 (1<sup>st</sup> & 2<sup>nd</sup> Floor)

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

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



TC- 407

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 : Smiore Colony

3. Sample Collected By4. Particulars of the sampling Equipments

MSV Analytical Laboratories, Bellary.
 Sample collected with RDS 460BL and FDS

5. Date of Monitoring

13.05.2023

6. Date of Sample Receipt7. Sample Code

15.05.2023

8. Analysis Starting Date

: 0182 : 15.05.2023

Analysis Completion Date
 Report Issue Date

18.05.2023 19.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: TC407123000000109F

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	
	42		1	2	3		in Avg.	
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	50.4	51.2	51.0	μg / m³	50.9	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	26.1	29.1	21.6	μg / m³	25.6	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9	15	6.6	μg / m³	10.2	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	19.8	24.6	16.8	μg / m³	20.4	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	9.8	9.7	9.6	μg / m³	9.7	100
6	Lead	IS-5182(Part-22):2019	0.021	0.020	0.019	μg / m³	0.020	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.48	0.49	0.47	mg/m³	0.48	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.2	1.1	1.0	μg / m³	1.10	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

ENDOF PAPORTI

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

<sup>2.</sup> 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/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.

: Smiore Colony

2. Name of the location3. Sample Collected By

: MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments

: Sample collected with RDS 460BL and FDS

5. Date of Monitoring

: 13.05.2023

6. Date of Sample Receipt7. Sample Code

: 15.05.2023

7. Sample Code8. Analysis Starting Date

: 0048 : 15.05.2023

9. Analysis Completion Date

18.05.2023

10. Report Issue Date

18.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/0047

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance
			1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	< 0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

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

Analysed by

-: END OF REPORT:-

B.Chinna Lingana Gouda
Chief executive of the laboratory

<sup>2.</sup> 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 : labmsy@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.

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 EI-42 43-E-18 and FDS

Sub Group: Ambient Air

5. Date of Monitoring6. Date of Sample Receipt

13.05.2023 15.05.2023

7. Sample Code

Discipline: Chemical

0183

8. Analysis Starting Date9. Analysis Completion Date

15.05.2023

10. Report Issue Date

: 18.05.2023 : 19.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

ULR No: TC407123000000110F

S.No	Parameter	Protocols	Shif	t wise resu	ılts	Units	Result	MARK 1991
50			1	2	3	100 Maria (100 Maria (	in Avg.	
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	59.1	65.3	57.6	μg / m³	60.7	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	19.6	20.1	17.3	μg / m³	19.0	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	11.7	14.8	9.7	µg / m³	12.1	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	17.8	20.8	16	μg / m³	18.2	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	10.1	9.1	8.3	μg / m³	9.2	100
6	Lead	IS-5182(Part-22):2019	0.032	0.030	0.028	μg / m³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.26	0.029	0.021	mg/m³	0.10	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.81	1.80	1.78	μg / m³	1.80	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

**Group: Atmospheric Pollution** 

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

Analysed by

END OF REPORT: PARTIES BALLARI PA

Authorized Signatory

B.Chinna Lingana Gouda Chief executive of the laboratory

<sup>2.</sup> 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/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 EI-42 43-E-18 and FDS

5. Date of Monitoring

13.05.2023

6. Date of Sample Receipt

: 15.05.2023

7. Sample Code

: 0049

8. Analysis Starting Date

15.05.2023

9. Analysis Completion Date

18.05.2023

10. Report Issue Date

19.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/0048

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
	11	4	1	2	3			
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<0.01	1

INFERENCE

As per NAAQS Standards

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

Analysed by

Soll Soll



B.Chinna Lingana Gouda
Chief executive of the laboratory

28

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

<sup>2.</sup> 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.

<sup>3.</sup> 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.

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NABL Accredited Laboratory

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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

: Vysanakere Village

3. Sample Collected By

MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments

Sample collected with RDS GTI-151 202-DTL-2019 and FDS

5. Date of Monitoring6. Date of Sample Receipt

: 13.05.2023

7. Sample Code

: 15.05.2023 : 0184

8. Analysis Starting Date

15.05.2023

9. Analysis Completion Date

18.05.2023

10. Report Issue Date11. Sampling Protocol

: 19.05.2023

IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: TC407123000000111F

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance limits
	42		1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	58.1	60.2	54.6	μg / m³	57.6	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	19.3	21.4	17.1	μg / m³	19.3	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	10.9	12.9	9	μg / m³	10.9	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	18.6	22.5	15.8	μg / m³	19.0	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	4.1	4.0	3.8	μg / m³	4.0	100
6	Lead	IS-5182(Part-22):2019	0.081	0.078	0.071	μg / m³	0.077	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.31	0.26	mg/m³	0.28	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.21	1.20	1.18	μg / m³	1.20	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

Xeep



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

<sup>2.</sup> 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, msvalbellarv2018@gmail.com, msv.lab01@gmail.com Web ID: www.msvalbellarv.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.

2. Name of the location Vysanakere Village

Sample Collected By 3 4. Particulars of the sampling Equipments MSV Analytical Laboratories, Bellary. Sample collected with RDS GTI-151 202-DTL-2019 and FDS

Date of Monitoring 5.

13.05.2023

Date of Sample Receipt 6.

15.05.2023

7. Sample Code 0050

**Analysis Starting Date** 8.

15.05.2023

9. **Analysis Completion Date**  18.05.2023

10. **Report Issue Date**  19.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/0049

S.No	Parameter	Protocols	Shift wise results		Shift wise results		Shift wise results		Shift wise results		Shift wise results		Shift wise results Units		Result in	Tolerance
	b.C	Trottocois	1	2	3		Avg.	limits								
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5								
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<0.01	1								

INFERENCE

As per NAAQS Standards

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

Analysed by

Chief executive of the laboratory

<sup>2.</sup> 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 2

**Gunda Village** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS APM 4601799-DTI-2010 and FDS

5. **Date of Monitoring**  13.05.2023

**Date of Sample Receipt** 6.

15.05.2023

Sample Code 7. 8.

0185 15.05.2023

**Analysis Starting Date** 9. **Analysis Completion Date** 

18.05.2023

**Report Issue Date** 10.

19.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: TC407123000000112F

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result	Tolerance
J	1		· 1	2	3	1	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	58.3	60.1	55.1	μg / m³	57.8	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	17.3	19.4	14.2	μg / m³	17.0	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	8.6	11.1	6.7	μg / m³	8.8	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	14.9	19.2	12.9	μg / m³	15.7	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	8.3	8.1	7.6	μg / m³	8.0	100
6	Lead	IS-5182(Part-22):2019	0.014	0.012	0.010	μg / m³	0.012	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.31	0.34	0.28	mg / m³	0.31	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.13	1.10	1.09	μg / m³	1.11	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

B.Chima Lingana Gouda Chief executive of the laboratory

Authorized Signatory

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.



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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No: Mob: 94498 03895, (0): 9945456764.08392-255169

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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 2.

**Gunda Village** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Benzo (a) Pyrene

Sample collected with RDS APM 4601799-DTI-2010 and FDS

Sub Group: Ambient Air

< 0.01

< 0.01

ng / m<sup>3</sup>

**Date of Monitoring** 5.

13.05.2023

**Date of Sample Receipt** 6.

15.05.2023

7. Sample Code **Analysis Starting Date** 8.

0051 15.05.2023

9. **Analysis Completion Date** 

18.05.2023

Report Issue Date 10.

**Discipline: Chemical** 

19.05.2023

**Group: Atmospheric Pollution** 

IS 5182: Part 12:2019

**Sampling Protocol** 

IS 5182: Part 14: 2019

ULR No: MSVAL/2023/0050

Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance
		1	2	3	Units	Avg.	limits
Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
			Parameter Protocols 1	Parameter Protocols 1 2	1 2 3	Parameter Protocols Units  1 2 3	Parameter Protocols Units Avg.

< 0.01

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

Analysed by

uthorized Signatory

< 0.01

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.

2. Name of the location **Smiore Colony** 

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS 460BL and FDS

**Date of Monitoring** 5. **Date of Sample Receipt**  15.05.2023

6. Sample Code 16.05.2023

7.

0293

**Analysis Starting Date** 8. **Analysis Completion Date** Q

16.05.2023

**Report Issue Date** 10.

19.05.2023 20.05.2023

Sampling Protocol

IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: TC407123000000188F

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result	
J	- dej		1	2	3		in Avg.	
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	60.4	62.3	58.6	μg / m³	60.4	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	26.7	28.8	24.2	μg / m³	26.6	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	17.0	19.0	14.9	μg / m³	17.0	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	26.0	28.9	23.9	μg / m³	26.3	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	8.2	9.4	7.4	μg / m³	8.3	100
6	Lead	IS-5182(Part-22):2019	0.034	0.042	0.028	μg / m³	0.035	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.23	0.28	0.20	mg/m³	0.24	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.81	1.94	1.74	μg / m³	1.83	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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,

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/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.

2. Name of the location **Smiore Colony** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS 460BL and FDS

5. **Date of Monitoring Date of Sample Receipt** 6.

15.05.2023

7. Sample Code 16.05.2023

8.

0081 16.05.2023

**Analysis Starting Date Analysis Completion Date** 9.

19.05.2023

**Report Issue Date** 10.

20.05.2023

11. **Sampling Protocol**  IS 5182: Part 14: 2019

ULR No: MSVAL/2023/0071

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance
			1	2	3			limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<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: 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



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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.

Sample collected with RDS EI-42 43-E-18 and FDS

2. Name of the location

Kallahalli Village

3. Sample Collected By

MSV Analytical Laboratories, Bellary.

Sub Group: Ambient Air

4. Particulars of the sampling Equipments5. Date of Monitoring

: 15.05.2023

6. Date of Sample Receipt

: 16.05.2023

7. Sample Code

0294

8. Analysis Starting Date9. Analysis Completion Date

: 16.05.2023 : 19.05.2023

10. Report Issue Date

20.05.2023

11. Sampling Protocol

**Discipline: Chemical** 

: IS 5182 : Part 14 : 2019

ULR No: TC407123000000189F

S.No	Parameter	Protocols	Shift wise results			Units	Result	Tolerance
			1	2	3	06	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	48.2	50.4	46.3	μg / m³	48.3	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	19.2	21.6	9.8	μg / m³	16.9	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	11.8	14.9	10.6	μg / m³	12.4	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	17.8	20.3	16.0	μg / m³	18.0	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	9.1	8.4	6.2	μg / m³	7.9	100
6	Lead	IS-5182(Part-22):2019	0.030	0.043	0.029	μg / m³	0.034	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.30	0.34	0.22	mg / m³	0.29	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.29	1.32	1.27	μg / m³	1.29	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

Group: Atmospheric Pollution

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

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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

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS EI-42 43-E-18 and FDS

**Date of Monitoring** 5. **Date of Sample Receipt**  15.05.2023

6.

16.05.2023

7. Sample Code 0082

**Analysis Starting Date** 8.

16.05.2023

**Analysis Completion Date** 9.

19.05.2023

**Report Issue Date** 10.

20.05.2023

Sampling Protocol

IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/0072

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
	F. Fe-	. V.	1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<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: 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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#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Name and Address of Industry 1.

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 Vysanakere Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS GTI-151 202-DTL-2019 and FDS

**Date of Monitoring** 

15.05.2023

**Date of Sample Receipt** 6. Sample Code 7.

16.05.2023

Analysis Starting Date 8.

0295 16.05.2023

9. **Analysis Completion Date** 

19.05.2023

**Report Issue Date** 10.

20.05.2023

**Sampling Protocol** 11.

IS 5182: Part 14: 2019

ULR No: TC407123000000190F

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

S.No	Parameter	Protocols	Shif	t wise resu	ılts	Units	Result	Tolerance
3.140	rarameter	* ( ) )	1	2	3	Omes	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	45.2	48.6	43.2	μg / m³	45.7	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	16.4	18.7	15.6	μg / m³	16.9	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9.8	12.0	8.7	μg / m³	10.2	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	14.9	18.2	12.6	μg / m³	15.2	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	7.3	8.2	7.0	μg / m³	7.5	100
6	Lead	IS-5182(Part-22):2019	0.029	0.032	0.027	μg / m³	0.029	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.30	0.26	mg / m³	0.28	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.20	1.24	1.18	μg / m³	1.21	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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,

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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#### 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.

2. Name of the location

Sample Collected By 3.

Vysanakere Village MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments Sample collected with RDS GTI-151 202-DTL-2019 and FDS

**Date of Monitoring** 5.

15.05.2023

**Date of Sample Receipt** 6.

16.05.2023

7. Sample Code 0083

**Analysis Starting Date** 8.

16.05.2023

9. **Analysis Completion Date**  19.05.2023

10. **Report Issue Date**  20.05.2023

**Sampling Protocol** 11.

IS 5182: Part 14: 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

MSVAL/2023/0073

**Authorized Signatory** 

Hanumanthaiah.P **Technical Manager** 

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits
	70		1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<0.01	1

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

Analysed by

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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NABL Accredited Laboratory

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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 Allovs Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

2. Name of the location

Gunda Village

3. Sample Collected By

MSV Analytical Laboratories, Bellary.

Sub Group: Ambient Air

4. Particulars of the sampling Equipments

Sample collected with RDS APM 4601799-DTI-2010 and FDS

5. Date of Monitoring

15.05.2023

6. Date of Sample Receipt

: 16.05.2023

7. Sample Code8. Analysis Starting Date

0296 16.05.2023

9. Analysis Completion Date

19.05.2023

10. Report Issue Date

20.05.2023

11. Sampling Protocol

Discipline: Chemical

: IS 5182 : Part 14 : 2019

ULR No: TC407123000000191F

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result	Tolerance
5.110	rarameter	ž G	1	2	3	Omes	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	47.3	49.4	45.2	μg / m³	47.3	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	17.4	20.3	15.8	μg / m³	17.8	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9.9	12.9	8.4	μg / m³	10.4	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	13.0	14.9	9.9	μg / m³	12.6	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	8.4	8.6	8.0	μg / m³	8.3	100
6	Lead	IS-5182(Part-22):2019	0.029	0.031	0.020	μg / m³	0.027	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.26	0.28	0.24	mg / m³	0.26	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.27	1.30	1.25	μg / m³	1.27	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

Group: Atmospheric Pollution

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

Analysed by

ENDOFREPORT 2

**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.

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.



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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**

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.

Particulars of the sampling Equipments 4.

Sample collected with RDS APM 4601799-DTI-2010 and FDS

Date of Monitoring 5. Date of Sample Receipt 15.05.2023

6. 7. Sample Code 16.05.2023

0084

**Analysis Starting Date** 8. 9. **Analysis Completion Date**  16.05.2023 19.05.2023

Report Issue Date 10.

20.05.2023

Sampling Protocol

IS 5182: Part 14: 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

MSVAL/2023/0074

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
	1.		1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<0.01	1

INFERENCE

As per NAAQS Standards

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

Analysed by

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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MSVAL/AA/RF/01/00

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Smiore Colony

17.05.2023

18.05.2023

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.

Sample collected with RDS 460BL and FDS

MSV Analytical Laboratories, Bellary.

2. Name of the location

3. Sample Collected By

Particulars of the sampling Equipments 4.

**Date of Monitoring** 5.

Sample Code 7.

**Analysis Starting Date** 8. **Analysis Completion Date** 

**Report Issue Date** 10. Sampling Protocol

**Date of Sample Receipt** 6.

0522 18.05.2023 23.05.2023 24.05.2023

IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: TC407123000000373F

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance
	4.0	N	1	2	3	-	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	59.2	61.5	56.4	μg / m³	59.0	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	19.4	21.2	17.1	μg / m³	19.2	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	10.85	11.8	8.45	μg / m³	10.4	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	14.85	17.2	12.6	μg / m³	14.9	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	9.2	9.5	8.4	μg / m³	9.0	100
6	Lead	IS-5182(Part-22):2019	0.022	0.026	0.020	μg / m³	0.023	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.48	0.50	0.34	mg/m³	0.44	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.26	1.30	1.22	µg / m³	1.26	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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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<sup>2.</sup> 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.



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

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

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

MSVAL/AA/RF/01/00

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Name and Address of Industry 1.

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 **Smiore Colony** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4. **Date of Monitoring** 5.

Sample collected with RDS 460BL and FDS

17.05.2023

**Date of Sample Receipt** 6.

18.05.2023

7. Sample Code 0127

8. **Analysis Starting Date**  18.05.2023 23.05.2023

9. **Analysis Completion Date** Report Issue Date 10.

24.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0116

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
			1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<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** 

MSVAL/AA/RF/01/00

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

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<sup>2.</sup> 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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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (0) : 9945456764,08392-255169

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



#### 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.

: Kallahalli Village

Name of the location
 Sample Collected By

MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments

Sample collected with RDS EI-42 43-E-18 and FDS

5. Date of Monitoring

: 17.05.2023

6. Date of Sample Receipt

: 18.05.2023

7. Sample Code

: 0524

8. Analysis Starting Date9. Analysis Completion Date

18.05.2023 23.05.2023

10. Report Issue Date

24.05.2023

11. Sampling Protocol

IS 5182 : Part 14 : 2019

ULR No: TC407123000000374F

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance
			_1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	56.4	58.2	52.1	μg / m³	55.6	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	18.5	20.3	16.4	μg / m³	18.4	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9.75	10.85	8.95	μg / m³	9.9	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	14.9	17.35	14.2	μg / m³	15.5	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	8.5	8.8	8.0	μg / m³	8.4	100
6	Lead	IS-5182(Part-22):2019	0.021	0.024	0.018	μg / m³	0.021	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.36	0.30	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.24	1.27	1.22	μg / m³	1.24	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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,

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/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 EI-42 43-E-18 and FDS

5. Date of Monitoring

17.05.2023

6. Date of Sample Receipt

: 18.05.2023

7. Sample Code

: 0128 : 18.05.2023

8. Analysis Starting Date9. Analysis Completion Date

: 23.05.2023

10. Report Issue Date

: 23.05.2023 : 24.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/0117

S.No	Parameter	neter Protocols Shift wise results		esults	Units	Result in	Tolerance	
	50000000 - 5000000000000000000000000000	T. GIV V	1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<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: 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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#### 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

: Vysanakere Village

3. Sample Collected By

MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments

Sample collected with RDS GTI-151 202-DTL-2019 and FDS

5. Date of Monitoring6. Date of Sample Receipt

17.05.2023 18.05.2023

6. Date of Sample Re7. Sample Code

0525

8. Analysis Starting Date9. Analysis Completion Date

18.05.2023

10. Report Issue Date

23.05.2023 24.05.2023

11. Sampling Protocol

IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: TC407123000000375F

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result	Tolerance
5.110	Tarameter	V Totocois	1	2	3	Omes	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	59.4	60.2	56.2	µg / m³	58.6	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	18.7	20.4	16.3	µg / m³	18.5	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9.85	10.75	9.15	μg / m³	9.9	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	15.05	16.75	13.7	$\mu g / m^3$	15.2	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	8.0	8.2	7.6	μg / m³	7.9	100
6	Lead	IS-5182(Part-22):2019	0.016	0.020	0.012	μg / m³	0.016	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.20	0.24	0.18	mg / m³	0.21	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.17	1.19	1.13	μg / m³	1.16	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

BALLARI PATE STATE OF STATE ST

**Authorized Signatory** 

Hanumanthaiah.P Technical Manager

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

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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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.



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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.

Sub Group: Ambient Air

Name of the location

Vysanakere Village

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments

Sample collected with RDS GTI-151 202-DTL-2019 and FDS

5. Date of Monitoring Date of Sample Receipt 6.

17.05.2023 18.05.2023

Sample Code 7.

0129

8.

18.05.2023

**Analysis Starting Date Analysis Completion Date** 9.

23.05.2023

10. **Report Issue Date**  24.05.2023

Sampling Protocol

**Discipline: Chemical** 

IS 5182: Part 14: 2019

ULR No: MSVAL/2023/0118

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance
			1	2 3		Avg.	limits	
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<0.01	1

**INFERENCE** 

As per NAAQS Standards

**Group: Atmospheric Pollution** 

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

Analysed by

**Authorized Signatory** 

**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.

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.

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(Certified by ISO 14001-2015, ISO 45001-2018, ISO 9001-2015, ISO 22000:2018) **NABL Accredited 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.

**Gunda Village** 

Name of the location 3. Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS APM 4601799-DTI-2010 and FDS

**Date of Monitoring** 

17.05.2023

**Date of Sample Receipt** 6. 7. Sample Code

18.05.2023 0523

8. **Analysis Starting Date** 

18.05.2023

9. **Analysis Completion Date** 10. Report Issue Date

23.05.2023 24.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

Discipline: Chemical

2.

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: TC407123000000376F

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance
5			1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	58.4	60.2	55.1	μg / m³	57.9	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	19.7	21.5	16.4	μg / m³	19.2	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9.75	11.85	8.75	μg / m³	10.1	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	15.6	<b>17.85</b>	14.35	μg / m³	15.9	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	8.5	8.8	8.2	μg / m³	8.5	100
6	Lead	IS-5182(Part-22):2019	0.023	0.025	0.020	μg / m³	0.023	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.36	0.28	mg/m³	0.32	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.20	1.24	1.16	μg / m³	1.20	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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,

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.

<sup>2.</sup> 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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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, 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.

Sub Group: Ambient Air

2. Name of the location **Gunda Village** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments

Sample collected with RDS APM 4601799-DTI-2010 and FDS

5. Date of Monitoring 17.05.2023

**Date of Sample Receipt** 6.

18.05.2023

Sample Code 7.

0130

**Analysis Starting Date** 8.

18.05.2023

**Analysis Completion Date Report Issue Date** 10.

23.05.2023 24.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

**Discipline: Chemical** 

ULR No: MSVAL/2023/0119

S.No	Parameter	Protocols Shift wise results	Units	Result in	Tolerance			
1			1	2	3	Onics	Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE

As per NAAQS Standards

**Group: Atmospheric Pollution** 

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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#### 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 **Smiore Colony** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS 460BL and FDS

**Date of Monitoring** 5. **Date of Sample Receipt** 6.

22.05.2023

23.05.2023

7. Sample Code 0839 23.05.2023

8. **Analysis Starting Date Analysis Completion Date** 9

25.05.2023

**Report Issue Date** 10.

26.05.2023

Sampling Protocol 11.

IS 5182: Part 14: 2019

ULR No: TC407123000000610F

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

S.No	Parameter	Protocols	Shif	ft wise resu	ılts	Units	Result	Tolerance
		<b>N</b>	1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	67.0	69.2	65.4	μg / m³	67.2	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	26.6	28.1	24.8	μg / m³	26.5	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	10.8	11.8	9.8	μg / m³	10.8	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	10.8	11.8	9.8	μg / m³	10.8	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	19.7	22.2	18.4	μg / m³	20.1	100
6	Lead	IS-5182(Part-22):2019	0.018	0.078	0.068	μg / m³	0.055	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.36	0.32	mg/m³	0.34	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.22	1.20	1.18	μg / m³	1.20	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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,

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

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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
 Sample Collected By

Smiore Colony
MSV Analytical Laboratories, Bellary.

3. Sample Collected By4. Particulars of the sampling Equipments

Sample collected with RDS 460BL and FDS

5. Date of Monitoring6. Date of Sample Receipt

22.05.2023

7. Sample Code

23.05.2023 0232

8. Analysis Starting Date

23.05.2023

9. Analysis Completion Date

25.05.2023

10. Report Issue Date

26.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

ULR No: MSVAL/2023/0221

Discipline: Chemical Group: Atmospheric Pollution

Sub Group: Ambient Air

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
			1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<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: 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



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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 EI-42 43-E-18 and FDS

5. Date of Monitoring

22.05.2023

6. Date of Sample Receipt

: 23.05.2023

7. Sample Code

: 0840

8. Analysis Starting Date

: 23.05.2023 : 25.05.2023

9. Analysis Completion Date10. Report Issue Date

: 25.05.2023

11. Sampling Protocol

. IS 5102 . Part 14 . 2010

IS 5182 : Part 14 : 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: TC407123000000611F

S.No	Parameter	Protocols	Shif	t wise resi	ults	Units	Result	Tolerance
Onto		2 O * 1 * 1	1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	51.3	54.3	48.6	μg / m³	51.4	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	20.4	23.1	18.8	μg / m³	20.8	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	10.8	11.8	9.7	µg / m³	10.8	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	19.0	18.8	16.8	μg / m³	18.2	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	9.4	8.6	7.4	μg / m³	8.5	100
6	Lead	IS-5182(Part-22):2019	0.019	0.017	0.015	μg / m³	0.017	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.22	0.24	0.28	mg/m³	0.25	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.32	1.28	1.27	μg / m³	1.29	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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,

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

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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 2.

Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS EI-42 43-E-18 and FDS

5. Date of Monitoring **Date of Sample Receipt** 6.

22.05.2023

23.05.2023

Sample Code 7.

0233

**Analysis Starting Date** 8.

23.05.2023

**Analysis Completion Date** 9.

25.05.2023

**Report Issue Date** 10.

26.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/0222

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance
	JANO T AT ATTACK		1	2	3		limits	
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<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: 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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#### 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.

Vysanakere Village Name of the location 2

MSV Analytical Laboratories, Bellary. 3. Sample Collected By

Sample collected with RDS GTI-151 202-DTL-2019 and FDS Particulars of the sampling Equipments 4.

**Date of Monitoring** 22.05.2023 5. Date of Sample Receipt 23.05.2023 6.

7. Sample Code 0841 **Analysis Starting Date** 23.05.2023 8 25.05.2023 9. **Analysis Completion Date** 

Report Issue Date 26.05.2023 10. **Sampling Protocol** IS 5182: Part 14: 2019

**Discipline: Chemical Group: Atmospheric Pollution**  Sub Group: Ambient Air

ULR No: TC407123000000612F

S.No	Parameter	Protocols	Shif	ft wise resu	ılts	Units	Result	Tolerance
Direc	- urumotor	√	1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	48.7	54.3	48.6	μg / m³	50.5	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	16.4	23.1	18.8	μg / m³	19.4	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9.8	11.8	9.7	μg / m³	10.4	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	14.9	18.8	16.8	μg / m³	16.8	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	9.4	8.6	7.4	μg / m³	8.5	100
6	Lead	IS-5182(Part-22):2019	0.019	0.017	0.015	μg / m³	0.017	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.24	0.28	mg / m³	0.28	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.32	1.28	1.27	μg / m³	1.29	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

As per NAAQS Standards INFERENCE

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,

<sup>2.</sup> 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.

<sup>3.</sup> 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.

<sup>4.</sup> Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.

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



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

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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 Vysanakere Village

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS GTI-151 202-DTL-2019 and FDS

**Date of Monitoring** 5. Date of Sample Receipt 22.05.2023

6. Sample Code 7.

23.05.2023 0234

8. **Analysis Starting Date Analysis Completion Date** 9.

23.05.2023 25.05.2023

**Report Issue Date** 10.

26.05.2023

Sampling Protocol 11.

IS 5182: Part 14: 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/0223

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
			1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyr <mark>ene</mark>	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

As per NAAQS Standards INFERENCE 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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2.

3.

### **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-407

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.

Name of the location : Gunda Village

Sample Collected By : MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments : Sample collected with RDS APM 4601799-DTI-2010 and FDS

 5. Date of Monitoring
 : 22.05.2023

 6. Date of Sample Receipt
 : 23.05.2023

 7. Sample Code
 : 0842

 8. Analysis Starting Date
 : 23.05.2023

9. Analysis Completion Date : 25.05.2023 10. Report Issue Date : 26.05.2023

11. Sampling Protocol : IS 5182 : Part 14 : 2019

Discipline: Chemical Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: TC407123000000613F

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance
Jiiro	= 8/2		1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	50.8	54.6	47.8	μg / m³	51.1	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	18.9	21.3	16.3	μg / m³	18.8	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9.8	9.8	7.5	μg / m³	9.0	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	10.7	11.9	9.5	μg / m³	10.7	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	7.4	6.8	5.9	μg / m³	6.7	100
6	Lead	IS-5182(Part-22):2019	0.036	0.034	0.030	μg / m³	0.033	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.26	0.28	0.30	mg / m³	0.28	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.19	1.21	1.17	μg / m³	1.19	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

BALLARI PA

**Authorized Signatory** 

Hanumanthaiah.P Technical Manager

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

<sup>2.</sup> 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.

<sup>3.</sup> 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.

<sup>4.</sup> Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.

<sup>5.</sup> 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

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** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments Sample collected with RDS APM 4601799-DTI-2010 and FDS

**Date of Monitoring** 5.

22.05.2023

**Date of Sample Receipt** 6.

23.05.2023

Sample Code 7.

0235

8. **Analysis Starting Date**  23.05.2023

9 **Analysis Completion Date**  25.05.2023

10. **Report Issue Date**  26.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Ambient Air

ULR No: MSVAL/2023/0224

S.No Parameter	Parameter	Protocols	Sh	ift wise re	esults	Units	Resultin	Tolerance
	Turumeter.		1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

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

Analysed by

**Authorized Signatory** 

**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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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.



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MSVAL/AA/RF/01/00

#### **ANALYSIS REPORT OF AMBIENT AIR QUALITY**

Name and Address of Industry

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

2. Name of the location

3. Sample Collected By

Particulars of the sampling Equipments 4.

**Date of Monitoring** 5. **Date of Sample Receipt** 6.

Sample Code 7. 8. **Analysis Starting Date** 

**Analysis Completion Date** 9.

**Report Issue Date** 10.

**Sampling Protocol** 11.

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Smiore Colony

MSV Analytical Laboratories, Bellary.

Sample collected with RDS 460BL and FDS

26.05.2023

27.05.2023 1322

27.05.2023 30.05.2023

31.05.2023

IS 5182: Part 14: 2019

Discipline: Chemical **Group: Atmospheric Pollution**  Sub Group: Ambient Air

ULR No: TC407123000000985F

S.No	Parameter	Protocols	Shif	ft wise resu	ilts	Units	Result	Tolerance
			1	2	3	12	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	61.4	64.6	56.8	μg / m³	60.93	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	28.6	30.2	26.2	μg / m³	28.33	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9.8	12.9	8.9	μg / m³	10.53	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	20.2	26.7	17.8	μg / m³	21.57	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	12.8	13.9	12.0	μg / m³	12.90	100
6	Lead	IS-5182(Part-22):2019	0.032	0.048	0.024	μg / m³	0.035	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.42	0.48	0.34	mg/m³	0.41	2
, 8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.88	1.14	0.67	µg / m³	0.90	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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,

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/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.

2. Name of the location **Smiore Colony** 

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 5.

Sample collected with RDS 460BL and FDS

**Date of Monitoring** 

26.05.2023

**Date of Sample Receipt** 6.

27.05.2023

Sample Code 7.

0299

**Analysis Starting Date** 8.

27.05.2023

**Analysis Completion Date** 9.

30.05.2023

10. **Report Issue Date**  31.05.2023

**Sampling Protocol** 

IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/0268

S.No	Parameter	Protocols	Sh	Shift wise results		Units	Result in	Tolerance
50			1	2	3	- Olina	Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	< 0.01	ng / m³	<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: 1. The results listed only to the tested samples & applicable parameters,

<sup>2.</sup> 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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<sup>5.</sup> 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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## **MSV** Analytical Laboratories

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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.

Kallahalli Village Name of the location MSV Analytical Laboratories, Bellary.

Sample Collected By 3.

Sample collected with RDS EI-42 43-E-18 and FDS Particulars of the sampling Equipments 26.05.2023

**Date of Monitoring** 5. 6. Date of Sample Receipt 27.05.2023 Sample Code 1323 7.

**Analysis Starting Date** 27.05.2023 8. **Analysis Completion Date** 30.05.2023 31.05.2023 **Report Issue Date** 10.

**Sampling Protocol** IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: TC407123000000986F

S.No	Parameter	Protocols	Shif	t wise resu	ults	Units	Result	Tolerance
50	- 1		1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	57.8	58.9	56.2	μg / m³	57.63	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	18.4	19.4	17.6	μg / m³	18.47	.60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	8.4	10.6	7.3	μg / m³	8.77	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	11.7	13.0	10.5	μg / m³	11.73	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	14.3	15.2	12.6	μg / m³	14.03	100
6	Lead	IS-5182(Part-22):2019	0.038	0.042	0.048	μg / m³	0.043	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.16	0.20	0.12	mg / m³	0.16	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.57	0.70	0.48	μg / m³	0.58	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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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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

Kallahalli Village

3. Sample Collected By

MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments

Sample collected with RDS EI-42 43-E-18 and FDS

5. Date of Monitoring

26.05.2023

6. Date of Sample Receipt

27.05.2023

7. Sample Code

0300

8. Analysis Starting Date

27.05.2023

9. Analysis Completion Date

30.05.2023

10. Report Issue Date

31.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: MSVAL/2023/0269

S.No	Parameter	Protocols	Shift wise r		Shift wise results		Shift wise results		Shift wise results		Result in	Tolerance
	10	1	1	2	3		Avg.	limits				
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5				
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<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: 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 2.

Vysanakere Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sampling Equipments 4.

Sample collected with RDS GTI-151 202-DTL-2019 and FDS

5. **Date of Monitoring Date of Sample Receipt**  26.05.2023

6.

27.05.2023

Sample Code 7. 8.

1324

**Analysis Starting Date Analysis Completion Date**  27.05.2023

30.05.2023

**Report Issue Date** 10. Sampling Protocol 31.05.2023 IS 5182: Part 14: 2019

Discipline: Chemical

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: TC407123000000987F

S.No	Parameter	Protocols	Shii	ft wise res	ults .	Units	Result	Tolerance
Jiivo	1 4 4 4 4	<b>V</b>	1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	48.3	54.2	44.1	μg / m³	48.87	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2019	20.4	22.0	18.2	μg / m³	20.20	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	9.2	10.8	7.2	μg / m³	9.07	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	14.2	16.6	12.4	μg / m³	14.40	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	11.4	12.6	9.4	μg / m³	11.13	100
6	Lead	IS-5182(Part-22):2019	0.024	0.032	0.018	μg / m³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.20	0.28	0.12	mg / m³	0.20	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.54	0.72	0.41	μg / m³	0.56	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<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,

<sup>2.</sup> 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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<sup>5.</sup> 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

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.

Sub Group: Ambient Air

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 GTI-151 202-DTL-2019 and FDS

5. Date of Monitoring

: 26.05.2023

6. Date of Sample Receipt

: 27.05.2023

7. Sample Code

: 0301

8. Analysis Starting Date

27.05.2023

9. Analysis Completion Date

30.05.2023

10. Report Issue Date11. Sampling Protocol

31.05.2023

Discipline: Chemical

: IS 5182 : Part 14 : 2019

ULR No: MSVAL/2023/0270

S.No	Parameter	Protocols	Sh	Shift wise results		Shift wise results		Shift wise results		Shift wise results		Units	Result in	Tolerance
00			1	2	3		Avg.	limits						
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5						
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<0.01	1						

INFERENCE

As per NAAQS Standards

Group: Atmospheric Pollution

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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-: END OF RE

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



16-40/

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.

Name of the location : Gunda Village

3. Sample Collected By

MSV Analytical Laboratories, Bellary.

4. Particulars of the sampling Equipments

Sample collected with RDS APM 4601799-DTI-2010 and FDS

5. Date of Monitoring6. Date of Sample Receipt

26.05.2023 27.05.2023

6. Date of Sample7. Sample Code

2.

1325

8. Analysis Starting Date

27.05.2023

9. Analysis Completion Date

30.05.2023

10. Report Issue Date

31.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Ambient Air

ULR No: TC407123000000988F

S.No	Parameter	Protocols	Shift wise results			Units	Result	Tolerance
3.140	i arameter		1	2	3	Omes	in Avg.	limits
1	Particulate Matter PM <sub>10</sub>	IS-5182(Part-23):2017	48.9	50.4	46.8	μg / m³	48.70	100
2	Particulate Matter or PM <sub>2.5</sub>	IS-5182(Part-24):2 <mark>01</mark> 9	19.6	21.7	17.3	μg / m³	19.53	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2):2017	10.8	11.8	9.3	μg / m³	10.63	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6):2017	17.9	19.8	15.6	μg / m³	17.77	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9):2019	9.8	10.2	8.8	μg / m³	9.60	100
6	Lead	IS-5182(Part-22):2019	0.020	0.027	0.012	μg / m³	0.020	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.18	0.24	0.16	mg / m³	0.19	2
8	Ammonia as NH <sub>3</sub>	IS-5182(part-25):2018	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.54	0.80	0.40	μg / m³	0.58	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	μg / m³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

ZENBAELARORIA ZENBAELARORIA **Authorized Signatory** 

Hanumanthaiah.P Technical Manager

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

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

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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.

Sub Group: Ambient Air

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 APM 4601799-DTI-2010 and FDS

5. Date of Monitoring

26.05.2023

6. Date of Sample Receipt

: 27.05.2023

7. Sample Code

: 0302

8. Analysis Starting Date

: 27.05.2023

9. Analysis Completion Date

30.05.2023

10. Report Issue Date

: 30.05.2023

11. Sampling Protocol

: IS 5182 : Part 14 : 2019

Discipline: Chemical

13 0102 114101112017

ULR No: MSVAL/2023/0271

S.No	Parameter	Protocols	Shift wise results		Units	Result in	Tolerance	
	70		1	2	3		Avg.	limits
11	Benzene as C <sub>6</sub> H <sub>6</sub>	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	μg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng/m³	<0.01	1

INFERENCE

As per NAAQS Standards

**Group: Atmospheric Pollution** 

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,

<sup>2.</sup> 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/SE/RF/01/00

#### **ANALYSIS REPORT FOR SOURCE EMMISSION**

. Name and Address of the

Industry

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vy<mark>asan</mark>akere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

2. Stack ID

Coke Screening& Store

3. Sample Collected By

MSV Analytical Laboratories, Bellary

4. Date of Monitoring
5. Date of Sample Receipt

16.05.2023

5. Date of Sample Receipt6. Sample Code

17.05.2023 0387

7. Analysis Starting Date8. Analysis Completion Date

17.05.2023 20.05.2023

9. Report Issue date

22.05.2023

**Discipline: Chemical** 

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC407123000000264F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS _1
Fuel Used	
Ambient Temperature (°C)	33
Stack Temperature (°C)	48
Velocity (m/s)	5.9
Height (m)	15 mtrs AGL
Diameter (m)	0.7
Cross sectional area (m²)	0.3850

#### RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS 11255 (Part-1): 2019	mg/Nm <sup>3</sup>	35.8	50

INFERENCE

As per GSR 277 (E) Standards,

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

Analysed by

ENDOT REPORT

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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#### **ANALYSIS REPORT FOR SOURCE EMMISSION**

l. 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.

2. Stack ID

3. Sample Collected By

Coke Cutter
MSV Analytical Laboratories, Bellary

4. Date of Monitoring

16.05.2023

5. Date of Sample Receipt

17.05.2023

6. Sample Code

0386 17.05.2023

7. Analysis Starting Date8. Analysis Completion Date

20.05.2023

9. Report Issue date

22.05.2023

**Discipline: Chemical** 

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC407123000000263F

**GENERAL DETAILS** 

Instrument Used for Sampling	Sample collected with VSS _1
Fuel Used	H AL
Ambient Temperature (°C)	35
Stack Temperature (°C)	55
Velocity (m/s)	5.9
Height (m)	15 mtrs AGL
Diameter (m)	0.7
Cross sectional area (m²)	0.3850

#### RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS 11255 (Part-1): 2019	mg/Nm³	34.2	50

INFERENCE

As per GSR 277 (E) Standards,

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

Analysed by

ENDORREPORTS BALLARI OF

**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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#### ANALYSIS REPORT FOR SOURCE EMMISSION

. 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.

2. Stack ID

Coal Crushing Area

3. Sample Collected By

MSV Analytical Laboratories, Bellary

4. Date of Monitoring

16.05.2023

5. Date of Sample Receipt6. Sample Code

17.05.2023 0460

7. Analysis Starting Date

17.05.2023

8. Analysis Completion Date

20.05.2023

9. Report Issue date

22.05.2023

**Discipline: Chemical** 

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC407123000000318F

**GENERAL DETAILS** 

Instrument Used for Sampling	Sample collected with VSS _1
Fuel Used	
Ambient Temperature (°C)	34
Stack Temperature (°C)	52
Velocity (m/s)	6.0
Height (m)	15 mtrs AGL
Diameter (m)	0.75
Cross sectional area (m²)	0.4419

#### RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS 11255 (Part-1): 2019	mg/Nm³	28.3	50

INFERENCE

As per GSR 277 (E) Standards,

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

Analysed by

BALLARI P

**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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#### **ANALYSIS REPORT FOR SOURCE EMMISSION**

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.

2. Stack ID

× 1=1

Ferro Alloy Arc Furnace 5
MSV Analytical Laboratories, Bellary

Sample Collected By
 Date of Monitoring

16.05.2023

5. Date of Sample Receipt6. Analysis Starting Date

17.05.2023 17.05.2023

7. Analysis Completion Date8. Report Issue date

20.05.2023 22.05.2023

Discipline: Chemical

Group: Atmospheric Pollution
GENERAL DETAILS

Sub Group: Stack emission

Instrument Used for Sampling	Sample collected with VSS_1
Fuel Used	
Ambient Temperature (°C)	- 1
Stack Temperature (°C)	
Velocity (m/s)	
Height (m)	35 mtrs AGL
Diameter (m)	2.5
Cross sectional area (m²)	4.9109

#### RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) - 2013	Nm³/hr	Shout Down	
Particulate Matter	IS-11255(Part-1) - 2019	mg/Nm³		
Sulphur dioxide	IS-11255(Part-2) - 2019	mg/Nm³		
Nitrogen dioxide	IS-11255(Part-7) - 2017	mg/Nm <sup>3</sup>		
Oxygen	IS 13270 (Orsat Apparatus USEPA 3A:1989): 2019	%		

Analysed by

END OF REPORTS

**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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#### **ANALYSIS REPORT FOR SOURCE EMMISSION**

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.

2. Stack ID

Ferro Alloy Arc Furnace 3

Sample Collected By 3. **Date of Monitoring** 

MSV Analytical Laboratories, Bellary

**Date of Sample Receipt** 5.

26.05.2023

Sample Code

27.05.2023

**Analysis Starting Date** 7.

1364 27.05.2023

**Analysis Completion Date** 8. Report Issue date

30.05.2023 31.05.2023

**Discipline: Chemical** 

**Group: Atmospheric Pollution** 

Sub Group: Stack emission

ULR No: TC407123000000135F

**GENERAL DETAILS** 

Instrument Used for Sampling	Sample collected with VSS _1		
Fuel Used			
Ambient Temperature (°C)	34		
Stack Temperature (°C)	102		
Velocity (m/s)	6.5		
Height (m)	35 mtrs AGL		
Diameter (m)	2.5		
Cross sectional area (m²)	4.9109		

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) - 2013	Nm³/hr	114915.06	
Particulate Matter	IS-11255(Part-1) - 2019	mg/Nm³	34.9	150
Sulphur dioxide	IS-11255(Part-2) - 2019	mg/Nm³	26.8	800
Nitrogen dioxide	IS-11255(Part-7) - 2017	mg/Nm³	45.6	500
Oxygen	IS 13270 (Orsat Apparatus USEPA 3A:1989): 2019	%	4.22	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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E-mail: msv.lab01@gmail.com, Labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/SE/RF/01/00

#### **ANALYSIS REPORT FOR SOURCE EMMISSION**

. 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. Coke Oven Battery – Passes Through WHRB-1

2. Stack ID

: MSV Analytical Laboratories, Bellary

3. Sample Collected By

26.05.2023

Date of Monitoring
 Date of Sample Receipt

27.05.2023

6. Sample Code7. Analysis Starting Date

1362 27.05.2023

8. Analysis Completion Date

30.05.2023

9. Report Issue date

30.05.2023

**Discipline: Chemical** 

Group: Atmospheric Pollution Sub Group: Stack emission

GENERAL DETAILS

ULR No: TC407123000001024F

Instrument Used for Sampling	Sample collected with VSS _1		
Fuel Used	( ) ( ) ( ) ( ) ( ) ( )		
Ambient Temperature (°C)	34		
Stack Temperature (°C)	135		
Velocity (m/s)	7.1		
Height (m)	60 mtrs AGL		
Diameter (m)	4.6		
Cross sectional area (m2)	16.62647		

#### RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) - 2013	Nm³/hr	474972.5732	200
Particulate Matter	IS-11255(Part-1) - 2019	mg/Nm <sup>3</sup>	28.4	50
Sulphur dioxide	IS-11255(Part-2) - 2019	mg/Nm <sup>3</sup>	21.2	800
Nitrogen dioxide	IS-11255(Part-7) - 2017	mg/Nm <sup>3</sup>	50.4	500
Oxygen	IS 13270	%	5.6	Max 1%
Carbon Monoxide	(Orsat Apparatus USEPA 3A:1989): 2019	%	0.28	

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



<sup>1.</sup> 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 1month 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.



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MSVAL/SE/RF/01/00

#### **ANALYSIS REPORT FOR SOURCE EMMISSION**

Name and Address of the

M/s. The Sandur Manganese & Iron Ores Ltd.

Industry

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

Stack ID 2.

Hospet Taluk, Bellary District, Karnataka. Coke Oven Battery - Passes Through WHRB-2

Sample Collected By

MSV Analytical Laboratories, Bellary

Date of Monitoring

26.05.2023

**Date of Sample Receipt** 

27.05.2023

Sample Code **Analysis Starting Date** 7.

1363 27.05.2023

**Analysis Completion Date** 8. Report Issue date

30.05.2023 31.05.2023

Discipline: Chemical

Sub Group: Stack emission **Group: Atmospheric Pollution** GENERAL DETAILS

ULR No: TC407123000001025F

Instrument Used for Sampling	Sample collected with VSS _1		
Fuel Used			
Ambient Temperature (°C)	35		
Stack Temperature (°C)	128		
Velocity (m/s)	7.2		
Height (m)	60 mtrs AGL		
Diameter (m)	4.6		
Cross sectional area (m2)	16.62647		

#### RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) - 2013	Nm³/hr	430958.1024	•••
Particulate Matter	IS-11255(Part-1) - 2019	mg/Nm <sup>3</sup>	26.2	50
Sulphur dioxide	IS-11255(Part-2) - 2019	mg/Nm <sup>3</sup>	32.4	800
Nitrogen dioxide	IS-11255(Part-7) - 2017	mg/Nm³	58.5	500
Oxygen	IS 13270	%	5.4	Max 1%
Carbon Monoxide	(Orsat Apparatus USEPA 3A:1989): 2019	%	0.30	

INFERENCE

As per GSR 277 (E) Standards,

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

**Authorized Signatory** 

Hanumanthaiah.P **Technical Manager** 

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

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.

<sup>2.</sup> 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.



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

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MSVAL/SE/RF/01/00

#### ANALYSIS REPORT FOR SOURCE EMMISSION

1. Name and Address of the

Industry

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasa<mark>nakere</mark>, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

2. Stack ID

DG Set 750 KVA

3. Sample Collected By

: MSV Analytical Laboratories, Bellary: 16.05.2023

4. Date of Monitoring5. Date of Sample Receipt

17.05.2023 0461

6. Sample Code7. Analysis Starting Date

17.05.2023 20.05.2023

8. Analysis Completion Date9. Report Issue date

22.05.2023

Discipline: Chemical

Group: Atmospheric Pollution

Sub Group: Stack emission

ULR No: TC407123000000319F

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 (m²)	0.0707		

#### RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part-1) - 2019	mg/Nm³	52.2	100
Sulphur dioxide	IS-11255(Part-2) - 2019	mg/Nm³	21.4	50
Nitrogen dioxide	IS-11255(Part-7) - 2017	mg/Nm³	24.6	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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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.

72