The Sandur Manganese & Iron Ores Limited

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

REGISTERED OFFICE
'SATYALAYA', No.266
Ward No.1, Palace Road
Sandur - 583 119, Ballari District

Karnataka, India Tel: +91 8395 260301/ 283173-199

Fax: +91 8395 260473



CORPORATE OFFICE

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

5th May 2023

Ref No: SMIORE/PLANT/ENV/MR/2023-24/66

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 April-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, here with we are submitting the environmental monitoring report of our plant for the month of April-2023 for your kind information.

Kindly acknowledge receipt of the same.

Thanking you,

The Sandur Manganese & Iron Ores Limited,

Authorized Signatory



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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5718

Issue Date: 06.04.2023

Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Smiore Colony

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling

03.04.2023 04.04.2023

Date of Sample Receipt 7. Sample Code

6401

8. **Analysis Starting Date** 04.04.2023

Analysis Completion Date

06.04.2023

Sample Tested as Received

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result	Tolerance
			1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	56.2	55.8	54.6	μg / m³	55.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.4	17.6	16.8	μg / m³	17.6	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	10.0	9.2	8.6	μg / m³	9.3	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.2	13.3	12.4	μg / m³	13.3	80
5	Ozone as O ₃	IS 5182(part-9)	8.7	8.5	8.4	µg / m³	8.5	100
6	Lead	IS-5182(Part22)	0.022	0.020	0.019	μg / m³	0.020	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.37	0.35	0.34	mg/m³	0.35	2
8	Ammonia as NH ₃	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	1.27	1.26	1.25	μg / m³	1.26	20

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory 1-e-2 B.Chiana 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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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5718

Issue Date: 06.04.2023

Name of the Project

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 sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling Date of Sample Receipt 03.04.2023 04.04.2023

Sample Code 7.

6401

Analysis Starting Date

04.04.2023

9. **Analysis Completion Date**

Sample Tested as Received

06.04.2023

S.No	Parameter	Protocols	Sh	Shift wise results			Shift wise results		Shift wise results		Units	Result in	Tolerance
	J.A.	, Y	1	2	3	2007 000 0000	Avg.	limits					
10	Benzene as C ₆ H ₆	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 Signator

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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5719

Issue Date: 06.04.2023

1. Name of the Project

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 sample

Sample collected with RDS APM460 and FDS GTI-131 03.04.2023

5. Date of Sampling6. Date of Sample Receipt

: 04.04.2023

7. Sample Code

6402

8. Analysis Starting Date

: 04.04.2023

9. Analysis Completion Date

: 06.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shir	ft wise resu	ılts	Units	Result	Tolerance
	ald K		1	2	3	3.25.44.25.35.35.35.3	in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.8	51.7	50.4	μg / m³	51.6	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	15.2	14.6	13.7	μg / m³	14.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.7	7.3	6.7	μg / m³	7.2	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.9	14.2	12.6	μg / m³	13.9	80
5	Ozone as O ₃	IS 5182(part-9)	8.8	8.6	8.4	μg / m³	8.6	100
6	Lead	IS-5182(Part22)	0.025	0.023	0.027	μg / m³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.48	0.46	0.44	mg/m³	0.46	2
8	Ammonia as NH ₃	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	1.36	1.34	1.32	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

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.

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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5719

Issue Date: 06.04.2023

Name of the Project

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

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling **Date of Sample Receipt** 6.

03.04.2023

7. Sample Code 04.04.2023

Analysis Starting Date 8.

6402

Analysis Completion Date

04.04.2023

06.04.2023

10.	Sample	Tested	as	Received
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S.No	Parameter	Protocols	Sh	Shift wise results			Result in	Tolerance
			1	2	3		Avg.	limits
10	Benzene as C ₆ H ₆	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

^{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.

^{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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5720

Issue Date: 06.04.2023

Name of the Project

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.

Particulars of the sample

MSV Analytical Laboratories, Bellary. Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling

03.04.2023

Date of Sample Receipt Sample Code

04.04.2023 6403

8. **Analysis Starting Date** 04.04.2023

Analysis Completion Date

Sample Tested as Received

06.04.2023

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
		· ·	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.2	52.2	51.4	μg / m³	52.6	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	17.2	16.8	15.8	μg / m³	16.6	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.8	8.8	7.9	μg / m³	8.8	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	13.6	12.4	11.1	μg / m³	12.4	80
5	Ozone as O ₃	IS 5182(part-9)	9.2	9.0	8.9	μg / m³	9.0	100
6	Lead	IS-5182(Part22)	0.025	0.024	0.023	μg / m³	0.024	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.32	0.30	mg/m³	0.32	2
8	Ammonia as NH ₃	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	1.24	1.22	1.20	μg / m³	1.22	20

INFERENCE

As per NAAQS Standards

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

ND OF REI

- we 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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5720

Issue Date: 06.04.2023

1. Name of the Project

: 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 sample

: Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

03.04.2023

6. Date of Sample Receipt

: 04.04.2023

Sample Code
 Analysis Starting Date

: 6403

9. Analysis Completion Date

: 04.04.2023

10. Sample Tested as Received

: 06.04.2023

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance
	70	70	1	2	3	-		limits
10	Benzene as C ₆ H ₆	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

BALLAD AT NO OF REPORTS

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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5721

Issue Date: 06.04.2023

Name of the Project

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

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling Date of Sample Receipt 6.

03.04.2023 04.04.2023

Sample Code

6403

Analysis Starting Date 8.

04.04.2023

9. **Analysis Completion Date**

Sample Tested as Received

06.04.2023

S.No	Parameter	Protocols	Shift wise results			Units	Result	Tolerance
			1	2	3	5 11155	in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	53.1	54.8	52.4	μg / m³	53.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	17.4	18.2	16.2	μg / m³	17.3	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	5.9	6.7	5.2	μg / m³	5.9	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.0	15.6	13.7	μg / m³	14.4	80
5	Ozone as O ₃	IS 5182(part-9)	7.8	8.0	7.4	μg / m³	7.7	100
6	Lead	IS-5182(Part22)	0.028	0.030	0.026	μg / m³	0.028	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 ₃	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	1.24	1.26	1.22	μg / m³	1.24	20

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory Ce-2 B. Chinna Lingana Gouda Chief executive of the laboratory

^{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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5721

Issue Date: 06.04.2023

1. Name of the Project

: 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 sample
 Date of Sampling

Sample collected with RDS APM460 and FDS GTI-131 03.04.2023

6. Date of Sample Receipt

: 04.04.2023

7. Sample Code

: 6403

8. Analysis Starting Date

: 04.04.2023

9. Analysis Completion Date

06.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Sh	Shift wise results		Shift wise results		Units	Result in	Tolerance
	10		1	2	3	<u>.</u>	Avg.	limits		
10	Benzene as C ₆ H ₆	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.

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(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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5929

Issue Date: 10.04.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

06.04.2023 07.04.2023

6. Date of Sample Receipt

: 6637

7. Sample Code8. Analysis Starting Date

: 07.04.2023

9. Analysis Completion Date

10.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
			1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	62.4	60.2	59.4	μg / m³	60.7	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	23.6	21.4	20.5	μg / m³	21.8	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	12.62	11.00	9.83	μg / m³	11.2	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.44	14.4	13.15	μg / m³	14.3	80
5	Ozone as O ₃	IS 5182(part-9)	9.4	10.7	9.2	μg / m³	9.8	100
6	Lead	IS-5182(Part22)	0.036	0.034	0.032	μg / m³	0.034	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.40	0.41	0.47	mg/m³	0.43	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP	2.18	2.36	2.45	μg / m³	2.33	20

INFERENCE

As per NAAQS Standards

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

Analysed by

END CHAFFIORZI-

B.Chima Lingana Gouda
Chief executive of the laboratory

Authorized Signatory

^{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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5929

Issue Date: 10.04.2023

Name of the Project

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 sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling 5.

06.04.2023

Date of Sample Receipt

07.04.2023

7. Sample Code 8.

6637 07.04.2023

Analysis Starting Date

9. **Analysis Completion Date** 10.04.2023

Sample Tested as Received 10.

S.No	Parameter Protocols		Sh	ift wise re	esults	Units	Result in	Tolerance
- Circo	70		1	2	3	J	Avg.	limits
10	Benzene as C ₆ H ₆	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 / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory

B.Chima Lingana Gouda Chief executive of the laboratory

^{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.msvalbellarv.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5930

Issue Date: 10.04.2023

1. Name of the Project

 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 sample5. Date of Sampling

Sample collected with RDS APM460 and FDS GTI-131

6. Date of Sample Receipt

06.04.2023 : 07.04.2023

7. Sample Code

: 6638

8. Analysis Starting Date

: 07.04.2023

9. Analysis Completion Date

: 10.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
			1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.4	53.1	52.1	μg / m³	53.2	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.6	19.5	18.6	μg / m³	19.6	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	12.62	11.23	10.26	μg / m³	11.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.21	14.94	13.75	µg / m³	15.0	80
5	Ozone as O ₃	IS 5182(part-9)	8.6	9.4	7.8	μg / m³	8.6	100
6	Lead	IS-5182(Part22)	0.038	0.036	0.034	μg / m³	0.036	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.30	0.34	0.32	mg/m³	0.32	2
8	Ammonia as NH ₃	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	1.15	1.25	2.12	μg / m³	1.15	20

INFERENCE

As per NAAQS Standards

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

Analysed by

END PREPORT:

B. Chinna Lingana Gouda
Chief executive of the laboratory

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5930

Issue Date: 10.04.2023

1. Name of the Project

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 sample

: Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

06.04.2023 07.04.2023

6. Date of Sample Receipt

07.04.

7. Sample Code 8. Analysis Starting 6638

8. Analysis Starting Date

: 07.04.2023

Analysis Completion Date
 Sample Tested as Received

10.04.2023

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
5		1100000	1	2	3	- Onnes	Avg.	limits

0	I di dilictor	1100000	The state of the s		A SHARE WATER TO SHARE THE PARTY OF THE PART	OARAGO	A	1::4
	70		1	2	3		Avg.	limits
10	Benzene as C ₆ H ₆	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,

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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5931

Issue Date: 10.04.2023

1. Name of the Project

: 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 sample

: Sample collected with RDS APM460 and FDS GTI-131 06.04.2023

5. Date of Sampling6. Date of Sample Receipt

: 07.04.2023

7. Sample Code

: 6639

8. Analysis Starting Date
9. Analysis Completion Date

: 07.04.2023

Analysis Completion Date
 Sample Tested as Received

: 10.04.2023

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	
			1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	49.4	48.3	47.5	μg / m³	48.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	22.0	24.2	23.4	μg / m³	23.2	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	15.41	14.28	15.32	μg / m³	15.0	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.21	15.06	19.75	μg / m³	17.3	80
5	Ozone as O ₃	IS 5182(part-9)	6.8	7.8	6.2	μg / m³	6.9	100
6	Lead	IS-5182(Part22)	0.092	0.090	0.086	μg / m ³	0.089	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.23	0.27	0.25	mg/m³	0.25	2
8	Ammonia as NH ₃	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	1.21	1.23	1.27	μg / m³	1.24	20

INFERENCE

As per NAAQS Standards

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

Analysed by

BALLA DO RADIO PROPERTIES OF HEPORT AND STATE OF HEPORT AND STATE

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

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

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

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5931

Issue Date: 10.04.2023

1. Name of the Project

: 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 sample

: Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receive

06.04.2023 : 07.04.2023

6. Date of Sample Receipt7. Sample Code

: 6639

8. Analysis Starting Date

: 07.04.2023

9. Analysis Completion Date

: 10.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
	1		1	2	3		Avg.	limits
10	Benzene as C ₆ H ₆	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

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5932

Issue Date: 10.04.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

06.04.2023

6. Date of Sample Receipt7. Sample Code

: 07.04.2023

7. Sample Code8. Analysis Starting Date

: 6640

9. Analysis Completion Date

: 07.04.2023

10. Sample Tested as Received

: 10.04.2023

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	The second secon
			1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	56.4	55.4	54.2	μg / m³	55.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	21.2	20.4	19.3	μg / m³	20.3	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	14.33	12.99	12.19	μg / m³	13.2	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.96	15.06	13.75	μg / m³	14.9	80
5	Ozone as O ₃	IS 5182(part-9)	9.5	8.9	8.4	μg / m³	8.9	100
6	Lead	IS-518 <mark>2(Part22)</mark>	0.027	0.023	0.020	μg / m ³	0.023	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.20	0.22	0.24	mg/m³	0.22	2
8	Ammonia as NH ₃	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

B. Chinna Lingana Gouda
Chief executive of the laboratory

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/5932

Issue Date: 10.04.2023

1. Name of the Project

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 sample

: Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receipt

06.04.2023 07.04.2023

Date of Sample Received
 Sample Code

: 6640

8. Analysis Starting Date

: 07.04.2023

9. Analysis Completion Date

: 10.04.2023

10. Sample Tested as Received

S.No Parame	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits
	10		1	2	3		Avg.	
10	Benzene as C ₆ H ₆	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
INFERENCE	Report Status:- The analyzed values for above measured parameter are within the limits

Analysed by

-: END OF REMORAL -: END OF REMORAL -: SANDON

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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6159

Issue Date: 13.04.2023

Name of the Project 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

Smiore Colony

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling Date of Sample Receipt 10.04.2023 11.04.2023

Sample Code

6908

8. **Analysis Starting Date**

11.04.2023

9. **Analysis Completion Date** 13.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shif	ft wise resi	ılts	Units	Result	
			1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.4	54.5	50.8	μg / m³	52.6	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	23.6	22.4	20.4	μg / m³	22.1	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	13.34	11.2	10.0	μg / m³	11.5	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.72	16.8	14.96	µg / m³	16.5	80
5	Ozone as O ₃	IS 5182(part-9)	8.7	9.7	7.6	μg / m³	8.7	100
6	Lead	IS-5182(Part22)	0.030	0.034	0.032	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 ₃	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	1.24	1.28	1.22	μg / m³	1.25	20

INFERENCE

As per NAAQS Standards

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

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.



(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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6159

Issue Date: 13.04.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

10.04.2023 11.04.2023

6. Date of Sample Receipt7. Sample Code

6908

8. Analysis Starting Date

: 11.04.2023

9. Analysis Completion Date

: 13.04.2023

10. Sample Tested as Received

: 13.04.202

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance limits	
	10		1	2	3		Avg.		
10	Benzene as C ₆ H ₆	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

^{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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6162

Issue Date: 13.04.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131 10.04.2023

5. Date of Sampling6. Date of Sample Receipt

11.04.2023

7. Sample Code

: 6911

8. Analysis Starting Date

: 11.04.2023

9. Analysis Completion Date

: 13.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise resu	ılts	Units	Result	April 1900 Anni Propinsi Propinsi Santa Sa
		<i>r</i>	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	55.4	54.3	52.6	μg / m³	54.1	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.3	19.6	18.7	μg / m³	19.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	12.34	11.05	9.93	μg / m³	11.1	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.30	12.65	12.4	μg / m³	13.1	80
5	Ozone as O ₃	IS 5182(part-9)	9.4	8.3	9.3	μg / m³	9.0	100
6	Lead	IS-5182(Part22)	0.036	0.034	0.032	μg / m³	0.034	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.30	0.34	0.38	mg/m³	0.34	2
8	Ammonia as NH ₃	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	1.20	1.24	1.28	μg / m³	1.24	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

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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6162

Issue Date: 13.04.2023

Name of the Project

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

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling

10.04.2023 11.04.2023

6. Date of Sample Receipt

6911

Sample Code 7. 8.

11.04.2023

Analysis Starting Date Analysis Completion Date 9.

13.04.2023

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits	
				2	3		Avg.	limits	
10	Benzene as C ₆ H ₆	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.

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6160

Issue Date: 13.04.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receipt

10.04.2023 11.04.2023

7. Sample Code

: 6909

8. Analysis Starting Date

: 11.04.2023

9. Analysis Completion Date

: 13.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
			1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	60.4	59.3	58.7	μg / m³	59.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	19.3	18.7	17.6	μg / m³	18.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	12.34	11.05	9.93	μg / m³	11.1	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.15	13.45	12.3	μg / m³	13.6	80
5	Ozone as O ₃	IS 5182(part-9)	7.9	8.9	9.5	μg / m³	8.8	100
6	Lead	IS-5182(Part22)	0.054	0.042	0.050	μg / m³	0.049	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.22	0.26	0.24	mg/m³	0.24	2
8	Ammonia as NH ₃	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	1.22	1.24	μg / m³	1.24	20

INFERENCE

As per NAAQS Standards

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

Analysed by

END OF REPORT

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

^{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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6160

Issue Date: 13.04.2023

Name of the Project

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

(Metal & Ferro Alloys Plant)

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

Name of the location

Vysanakere Village

Sample Collected By

MSV Analytical Laboratories, Bellary. Sample collected with RDS APM460 and FDS GTI-131

Particulars of the sample 4

10.04.2023

Date of Sampling Date of Sample Receipt 6.

11.04.2023

7. Sample Code

6909

8.

11.04.2023

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

13.04.2023

10.

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits
	70		1	2	3		Avg.	
10	Benzene as C ₆ H ₆	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

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/A/F/16/03

2

400

20

0.22

< 0.01

1.24

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6161

Issue Date: 13.04.2023

Name of the Project

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.

Particulars of the sample 4. 5. **Date of Sampling**

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt 6.

10.04.2023 11.04.2023

7. Sample Code

10.

Carbon Monoxide as CO

Ammonia as NH₃

Nickel as Ni

6910

Analysis Starting Date

11.04.2023

9. **Analysis Completion Date**

Sample Tested as Received

13.04.2023

	S.No	Parameter	Protocols	Shi	ift wise res	ults	Units	Result	Tolerance	
		24		1	1 2		00	in Avg.	limits	
	1	Particulate Matter PM ₁₀	IS-5182(Part-23)	48.3	47.5	45.4	μg / m³	47.1	100	
	2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.6	17.6	16.5	μg / m³	17.6	60	
	3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	13.2	12.45	10.0	μg / m³	11.9	80	
	4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.6	14.75	14.0	μg / m³	15.1	80	
	5	Ozone as O ₃	IS 5182(part-9)	9.7	8.6	7.4	μg / m³	8.6	100	
	6	Lead	IS-5182(Part22)	0.025	0.027	0.020	ug/m³	0.024	1	

LAB SOP

MSVAL/SOP/A/007 LAB SOP

MSVAL/SOP/A/006 LAB SOP

MSVAL/SOP/A/008

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

0.20

< 0.01

1.25

0.22

< 0.01

1.22

0.25

< 0.01

1.26

Analysed by

7

8

Chief executive of the laboratory

 mg/m^3

 $\mu g / m^3$

 $\mu g / m^3$

^{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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6161

Issue Date: 13.04.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receipt

10.04.2023 11.04.2023

7. Sample Code

: 6910

8. Analysis Starting Date

: 11.04.2023

9. Analysis Completion Date

13.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance limits
	70		1	2	3	l.	Avg.	
10	Benzene as C ₆ H ₆	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

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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6457

Issue Date: 17.04.2023

Name of the Project

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

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling Date of Sample Receipt

13.04.2023 14.04.2023

Sample Code

6945 14.04.2023

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

17.04.2023

Sample Tested as Received

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result in Avg.	Tolerance limits	
		W.	1	2	3		in Avg.		
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	58.9	59.6	57.6	μg / m³	58.7	100	
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	22.4	23.4	21.4	μg / m³	22.4	60	
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.9	8.1	6.8	μg / m³	7.6	80	
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.2	17.8	16.0	μg / m³	17.0	80	
5	Ozone as O ₃	IS 5182(part-9)	8.2	8.1	8.6	μg / m³	8.3	100	
6	Lead	IS-5182(Part22)	0.036	0.025	0.024	μg / m³	0.028	1	
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.41	0.42	0.40	mg/m³	0.41	2	
8	Ammonia as NH ₃	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	1.8	1.7	1.6	μg / m³	1.7	20	

INFERENCE

As per NAAQS Standards

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



Authorized Signatory - Cl-2 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.

^{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

MSVAL/A/F/16/03

Issue Date: 17.04.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6457 Name of the Project

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

(Metal & Ferro Alloys Plant)

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

Name of the location

1.

Smiore Colony

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling

13.04.2023 14.04.2023

Date of Sample Receipt 7. Sample Code

6945

8. **Analysis Starting Date** 14.04.2023

Analysis Completion Date

17.04.2023

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
	30		1	2	3			
10	Benzene as C ₆ H ₆	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.Chinna Lingana Gouda Chief executive of the laboratory

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.

^{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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6458

Issue Date: 17.04.2023

Name of the Project

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

(Metal & Ferro Alloys Plant)

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

Name of the location

Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample **Date of Sampling**

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt 6.

13.04.2023 14.04.2023

Sample Code

6946

8. **Analysis Starting Date** 14.04.2023

9. **Analysis Completion Date** 17.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result in Avg.	Tolerance	
	14	· ·	1	2 3			in Avg.	limits	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	56.1	57.8	55.4	μg / m³	56.4	100	
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.4	21.4	19.2	μg / m³	20.3	60	
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.9	8.9	6.9	μg / m ³	7.9	80	
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12	13.2	10.7	μg / m³	12.0	80	
5	Ozone as O ₃	IS 5182(part-9)	7.1	7.0	6.9	μg / m³	7.0	100	
6	Lead	IS-5182(Part22)	0.032	0.031	0.030	μg / m³	0.031	1	
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.33	0.31	mg/m³	0.32	2	
8	Ammonia as NH ₃	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	1.81	1.80	1.79	μg / m³	1.8	20	

INFERENCE

As per NAAOS Standards

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



Authorized Signatory - W 1 B. Chinna Lingana Gouda Chief executive of the laboratory

^{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.

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6458

Issue Date: 17.04.2023

1. Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

Hospet Taluk, Bellary District, Karnataka. Kallahalli Village

2. Name of the location

Sample Collected By

MSV Analytical Laboratories, Bellary.

4. Particulars of the sample

: Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

13.04.2023

Date of Sample Receipt

14.04.2023

Sample Code

6946

8. Analysis Starting Date

14.04.2023

9. Analysis Completion Date10. Sample Tested as Received

17.04.2023

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
5	70		1	2	3	N.		
10	Benzene as C ₆ H ₆	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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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6459

Issue Date: 17.04.2023

Name of the Project

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

(Metal & Ferro Alloys Plant)

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

Name of the location

Vysanakere Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

5. **Date of Sampling Date of Sample Receipt** 13.04.2023 14.04.2023

Sample Code

6947

14.04.2023

Analysis Starting Date Analysis Completion Date 9

Sample Tested as Received

17.04.2023

S.No	Parameter	Protocols	Shir	ft wise res	ults	Units	Result in Avg.	Tolerance
	_ <		1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	51.6	50.4	49.2	μg / m³	50.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	16.4	15.8	14.7	μg / m³	15.6	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.1	6.9	5.9	μg / m³	6.6	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12.6	11.9	11.1	μg / m³	11.9	80
5	Ozone as O ₃	IS 5182(part-9)	3.2	3.1	3.0	μg / m³	3.1	100
6	Lead	IS-5182(Part22)	0.088	0.087	0.086	μg / m³	0.087	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.25	0.26	0.24	mg/m³	0.25	2
8	Ammonia as NH ₃	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	1.16	1.15	1.14	μg / m³	1.2	20

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6459

Issue Date: 17.04.2023

1. Name of the Project M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

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

Name of the location

Vysanakere Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample Date of Sampling

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

13.04.2023 14.04.2023

Sample Code 7.

6947

Analysis Starting Date 8.

14.04.2023

Analysis Completion Date 9. Sample Tested as Received 10.

17.04.2023

S.No	Parameter	Protocols	Sh	Shift wise results		Units	Result in	Tolerance
	11		1	2	3		Avg.	limits
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
11	Benzo (α) Pyrene	CPCB Procedure	<0.01	<0.01	<0.01	μg / m ³	<0.01	1

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

< 0.01

CPCB Procedure

< 0.01

< 0.01



12

(BaP)

Arsenic as As



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

 $\mu g / m^3$

< 0.01

30

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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6460

Issue Date: 17.04.2023

1. Name of the Project

 $: \quad M/s. \ The \ Sandur \ Manganese \ \& \ Iron \ Ores \ Ltd.$

(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 sample Date of Sampling Sample collected with RDS APM460 and FDS GTI-131

6. Date of Sample Receipt

13.04.2023 : 14.04.2023

7. Sample Code

: 6948 : 14.04.202

8. Analysis Starting Date9. Analysis Completion Date

: 14.04.2023 : 17.04.2023

10. Sample Tested as Received

S.No	Parameter	Parameter Protocols Shift wise results	ults	Units	Result	Tolerance		
J10	74	V	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.6	53.2	52.4	μg / m³	53.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	15.2	14.1	13.7	μg / m³	14.3	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	5.0	5.1	3.9	μg / m³	4.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	8.3	6.5	5.9	μg / m³	6.9	80
5	Ozone as O ₃	IS 5182(part-9)	6.6	6.5	6.4	μg / m³	6.5	100
6	Lead	IS-5182(Part22)	0.014	0.013	0.012	μg / m³	0.013	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.24	0.25	0.23	mg/m³	0.24	2
8	Ammonia as NH ₃	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	1.23	1.22	1.21	μg / m³	1.2	20

INFERENCE

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

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.

^{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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6460

Issue Date: 17.04.2023

Name of the Project

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 Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling

13.04.2023 14.04.2023

Date of Sample Receipt

6948

Sample Code

Analysis Starting Date 8.

14.04.2023

9. **Analysis Completion Date** 10. Sample Tested as Received 17.04.2023

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance limits
			1	2	3	f.	Avg.	
10	Benzene as C ₆ H ₆	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
INFERENCE	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,

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.

^{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.



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

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6705

Issue Date: 20.04.2023

1. Name of the Project

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 sample

: Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

17.04.2023 : 18.04.2023

6. Date of Sample Receipt

: 7232

7. Sample Code

: 18.04.2023

8. Analysis Starting Date9. Analysis Completion Date

: 20.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result	Tolerance
			1 2		3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	58.2	59.4	57.3	μg / m³	58.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	21.6	22.7	20.8	μg / m³	21.7	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	17.4	17.3	16.1	μg / m³	16.9	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	20.9	21.6	20.4	μg / m³	21.0	80
5	Ozone as O ₃	IS 5182(part-9)	8.4	8.3	8.2	μg / m³	8.3	100
6	Lead	IS-5182(Part22)	0.034	0.033	0.032	μg / m³	0.033	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	<0.01	<0.01	<0.01	mg/m³	<0.01	2
8	Ammonia as NH ₃	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	1.81	1.80	1.79	μg / m³	1.80	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

^{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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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/A/F/16/03

Issue Date: 20.04.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6705 Name of the Project

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

(Metal & Ferro Alloys Plant)

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

Name of the location

Smiore Colony

Sample Collected By 3 Particulars of the sample MSV Analytical Laboratories, Bellary. Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling **Date of Sample Receipt** 17.04.2023 18.04.2023

Sample Code 7. 8. **Analysis Starting Date** 7232 18.04.2023

Analysis Completion Date 9.

20.04.2023

10.	Sample Tested as Received
	200

1.

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
5.110			1	2	3			
10	Benzene as C ₆ H ₆	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 - ce-2 B.Chinna Lingana Gouda Chief executive of the laboratory

^{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: labmsy@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6706

Issue Date: 20.04.2023

Name of the Project

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

(Metal & Ferro Alloys Plant)

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

Name of the location

Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

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

Date of Sampling Date of Sample Receipt 6.

17.04.2023 18.04.2023

Sample Code 7.

7233

Analysis Starting Date 8.

18.04.2023 20.04.2023

Analysis Completion Date 9. Sample Tested as Received

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result in Avg.	Tolerance limits
	T di dinette	7.00000	1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.6	53.1	52.4	μg / m³	53.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	17.2	16.2	15.8	μg / m³	16.4	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	11.8	10.2	9.9	μg / m³	10.6	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.4	14.3	12.6	μg / m³	14.1	80
5	Ozone as O ₃	IS 5182(part-9)	8.4	8.3	8.2	μg / m³	8.3	100
6	Lead	IS-5182(Part22)	1.24	1.23	1.22	μg / m³	1.23	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.35	0.33	mg/m³	0.34	2
8	Ammonia as NH ₃	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	1.36	1.35	1.34	µg / m³	1.35	20

INFERENCE

As per NAAQS Standards

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

Analysed by

END OF RE

uthorized Signatory B. Chimna Lingana Gouda Chief executive of the laboratory

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.

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6706

Issue Date: 20.04.2023

Name of the Project

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 sample 4.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling

17.04.2023 18.04.2023

Date of Sample Receipt

7233

Sample Code 7.

18.04.2023

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

20.04.2023

Sample Tested as Received

S.No	Parameter Protocols		Sh	ift wise re	sults	Units	Result in	Tolerance limits
	70		1	2	3	k	Avg.	lillits
10	Benzene as C ₆ H ₆	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
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Analysed by

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

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

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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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6707

Issue Date: 20.04.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receipt

17.04.2023 : 18.04.2023

7. Sample Code

: 7234

8. Analysis Starting Date
9. Analysis Completion Date

18.04.2023

10. Sample Tested as Received

20.04.2023

S.No	Parameter	Protocols	Shir	ft w <mark>i</mark> se resu	ılts	Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.2	53.1	52.7	μg / m³	53.3	100
2 ,	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	16.2	15.8	14.2	μg / m³	15.4	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.8	7.8	6.8	μg / m³	7.8	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	11.7	10.7	9.5	μg / m³	10.6	80
5	Ozone as O ₃	IS 5182(part-9)	8.1	8.0	7.9	μg / m³	8.0	100
6	Lead	IS-5182(Part22)	0.026	0.025	0.024	μg / m³	0.03	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.29	0.27	mg/m³	0.28	2
8	Ammonia as NH ₃	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	1.31	1.30	μg / m³	. 1.31	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,

NDOFRE

37

^{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.

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6707

Issue Date: 20.04.2023

1. Name of the Project

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 sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling

17.04.2023

6. Date of Sample Receipt

18.04.2023

7. Sample Code

q

: 7234

8. Analysis Starting Date

18.04.2023

Analysis Completion Date

20.04.2023

10. Sample Tested as Received

S.No	Parameter	Shift wise results			Units	Result in	Tolerance	
			1	2	3		Avg.	limits
10	Benzene as C ₆ H ₆	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

			-	
IN	CE	RI	EΝ	CF
114				CL

As per NAAQS Standards

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

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6708

Issue Date: 20.04.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receipt

17.04.2023 18.04.2023

7. Sample Code

: 7235

7. Sample Code

18.04.2023

8. Analysis Starting Date9. Analysis Completion Date

10.04.2023

10. Sample Tested as Received

20.04.2023

S.No	Parameter	Protocols	Shii	ft wise resu	ılts	Units	Result in Avg.	Tolerance limits
50			1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	53.2	52.1	51.7	μg / m³	52.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	14.6	13.3	12.5	μg / m³	13.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.2	8.1	6.7	μg / m³	7.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.6	14.8	14.3	μg / m³	14.9	80
5	Ozone as O ₃	IS 5182(part-9)	6.4	6.3	6.2	μg / m³	6.3	100
6	Lead	IS-5182(Part22)	1.34	1.33	1.32	µg / m³	1.33	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.33	0.31	mg/m³	0.32	2
8	Ammonia as NH ₃	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	ng/m³	1.25	20

INFERENCE

As per NAAQS Standards

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

Analysed by

-: END OF REPORT

Authorized Signatory

B. Chinna Lingana Gouda

Chief executive of the laboratory

^{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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6708

Issue Date: 20.04.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receipt

17.04.2023 18.04.2023

7. Sample Code

: 7235

8. Analysis Starting Date

: 18.04.2023

9. Analysis Completion Date

: 20.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
Silvo		V	1	2	3			
10	Benzene as C ₆ H ₆	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.Chimha 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.

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6944

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

Issue Date: 24.04.2023

Name of the Project

(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 sample 4.

Sample collected with RDS APM460 and FDS GTI-131 20.04.2023

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

21.04.2023

Sample Code 7.

7492

Analysis Starting Date 8.

21.04.2023

Analysis Completion Date

24.04.2023

10.	Sampl	e Tested	as Received

S.No	Parameter	Protocols	Shif	ft wise resi	ults	Units	Result	Tolerance
5.110	T di dineter	Trotocois	1	2	3	Ontes	in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	58.9	59.2	57.4	μg / m³	58.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	21.4	22.6	20.7	μg / m³	21.6	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	12.4	10.9	11.0	μg / m³	11.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	18.9	19.2	18.6	μg / m³	18.9	80
5	Ozone as O ₃	IS 5182(part-9)	8.42	8.41	8.40	μg / m³	8.4	100
6	Lead	IS-5182(Part22)	0.025	0.024	0.023	μg / m³	0.024	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.38	0.37	0.36	mg/m³	0.37	2
8	Ammonia as NH ₃	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	1.50	1.49	1.48	μg / m³	1.49	20

INFERENCE

As per NAAOS Standards

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

B.Chinna Lingana Gouda Chief executive of the laboratory

Page:1

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

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6944

Issue Date: 24.04.2023

1. Name of the Project

: 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 sample

: Sample collected with RDS APM460 and FDS GTI-131 20.04.2023

5. Date of Sampling6. Date of Sample Receipt

: 21.04.2023

6. Date of Sample Rec7. Sample Code

7492

8. Analysis Starting Date

: 21.04.2023

9. Analysis Completion Date

: 24.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in	Tolerance
			1	2	3		Avg.	limits
10	Benzene as C ₆ H ₆	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
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Analysed by

Authorized Signatory

B.Chinna Lingana Gouda Chief executive of the laboratory

Page:2

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.



(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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6945

Issue Date: 24.04.2023

Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

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

Name of the location

Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

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

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

20.04.2023 21.04.2023

7. Sample Code

7493

8. **Analysis Starting Date**

21.04.2023

9 **Analysis Completion Date** 24.04.2023

Sample Tested as Received

S.No	Parameter	Protocols	Shif	t wise resi	ults	Units	Result	Tolerance
		/	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	48.2	49.3	47.6	μg / m³	48.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	19.6	20.4	18.4	μg / m³	19.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	10.0	11.2	9.3	μg / m³	10.2	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	13.7	14.8	13.1	μg / m³	13.9	80
5	Ozone as O ₃	IS 5182(part-9)	8.40	8.39	8.38	μg / m³	8.4	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	0.34	0.33	0.32	mg/m³	0.33	2
8	Ammonia as NH ₃	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	1.40	1.39	1.38	μg / m³	1.39	20

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

^{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.



(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/A/F/16/03

Issue Date: 24.04.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6945

1. Name of the Project

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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

20.04.2023

6. Date of Sample Receipt

21.04.2023

7. Sample Code

7493

8. Analysis Starting Date9. Analysis Completion Date

21.04.2023

10. Sample Tested as Received

24.04.2023

S.No	Parameter	rameter Protocols Shift wise results Un	Units	Result in	Tolerance limits			
	10		1	2	3		Avg.	limits
10	Benzene as C ₆ H ₆	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

Page:2

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

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(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: labmsy@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6946

Issue Date: 24.04.2023

Name of the Project

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

(Metal & Ferro Alloys Plant)

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

Name of the location

Vysanakere Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

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

20.04.2023 21.04.2023

Sample Code 7.

7494

Analysis Starting Date 8.

21.04.2023

Analysis Completion Date

24.04.2023

9. Sample Tested as Received

10.

S.No	Parameter	Protocols	Shif	t wise resi	ults	Units	Result	Tolerance limits
Sire	774		1	2	3		in Avg.	iimits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.9	55.4	53.2	μg / m³	54.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.2	21.6	19.8	μg / m³	20.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	19.0	20.2	18.1	μg / m³	19.1	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	22.8	24.0	21.6	μg / m³	22.8	80
5	Ozone as O ₃	IS 5182(part-9)	6.2	6.1	6.0	μg / m³	6.1	100
6	Lead	IS-5182(Part22)	0.015	0.014	0.013	μg / m³	0.014	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.31	0.30	0.29	mg/m³	0.30	2
8	Ammonia as NH ₃	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	1.28	1.27	1.26	μg / m³	1.27	20

INFERENCE

As per NAAOS Standards

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

Analysed by

Authorized Signatory . Le

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

Page:1

MSVAL/A/F/16/03

Issue Date: 24.04.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6946

Name of the Project

2.

Name of the location Sample Collected By Particulars of the sample 4.

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

8. **Analysis Starting Date** 9. **Analysis Completion Date** Sample Tested as Received M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Vysanakere Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

20.04.2023 21.04.2023 7494

21.04.2023 24.04.2023

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
5			1	2	3			
10	Benzene as C ₆ H ₆	[S: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 / m ³	<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

B.Chinna Lingana Gouda Chief executive of the laboratory

Page:2

^{1.} The results listed only to the tested samples & applicable parameters,

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6947

Name of the Project

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

Issue Date: 24.04.2023

(Metal & Ferro Alloys Plant)

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

Name of the location

Sample Collected By 3.

Gunda Village

4. Particulars of the sample MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131 20.04.2023

Date of Sampling 5. Date of Sample Receipt 6.

21.04.2023

7. Sample Code 7495

Analysis Starting Date 8.

21.04.2023

9. **Analysis Completion Date** Sample Tested as Received 10.

24.04.2023

S.No	Parameter	Protocols	Shif	t wise resi	ults	Units	Result	Tolerance
3.110	ratameter	Trotocois	1	2	3	Omes	in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	48.7	49.8	47.1	μg / m³	48.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.9	19.4	17.2	μg / m³	18.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	12.1	13.2	10.8	μg / m³	12.1	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	19.0	19.2	18.0	μg / m³	18.7	80
5	Ozone as O ₃	IS 5182(part-9)	9.6	9.5	9.4	μg / m³	9.5	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	0.25	0.24	0.23	mg/m³	0.24	2
8	Ammonia as NH ₃	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

B. Chinna Lingana Gouda Chief executive of the laboratory

Authorized Signato

^{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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Page:1

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/6947

Issue Date: 24.04.2023

Name of the Project

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 sample 4.

Sample collected with RDS APM460 and FDS GTI-131 20.04.2023

Date of Sampling 5.

21.04.2023

Date of Sample Receipt 6.

7495

Sample Code 7.

21.04.2023

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

24.04.2023

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
			1	2	3		Avg.	
10	Benzene as C ₆ H ₆	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
INFERENCE	Report Status: - The analyzed values for above measured parameter are within the limits

Analysed by

Chief executive of the laboratory

Page:2

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

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

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7280

Issue Date: 27.04.2023

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

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

Name of the location

Smiore Colony

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

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

5. Date of Sampling **Date of Sample Receipt** 24.04.2023 25.04.2023

7. Sample Code 7885

Analysis Starting Date 8.

25.04.2023

9. **Analysis Completion Date** 27.04.2023

Sample Tested as Received

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result	Tolerance limits
	4.87 V	7	1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	56.7	59.2	55.6	μg / m³	57.2	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.3	22.4	21.6	μg / m³	21.4	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	10.8	11.8	9.6	μg / m³	10.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	18.3	21.9	19.4	μg / m³	19.9	80
5	Ozone as O ₃	IS 5182(part-9)	<0.01	<0.01	<0.01	μg / m³	<0.01	100
6	Lead	IS-5182(Part22)	0.083	0.080	0.082	μg / m³	0.082	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.26	0.30	0.34	mg/m³	0.30	2
8	Ammonia as NH ₃	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	1.28	1.22	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

Authorized Signatory Renukamma Quality 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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(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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7280

Issue Date: 27.04.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

24.04.2023

6. Date of Sample Receipt

25.04.2023

7. Sample Code

: 7885

8. Analysis Starting Date

: 25.04.2023

9. Analysis Completion Date

: 27.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance
	70		1	2	3		Avg.	limits
10	Benzene as C ₆ H ₆	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 / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory

Renukamma Quality Manager



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

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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.



(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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7281

Issue Date: 27.04.2023

Name of the Project

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

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sample **Date of Sampling** 5.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

24.04.2023 25.04.2023

Sample Code 7.

7886

8. **Analysis Starting Date** 25.04.2023

9. **Analysis Completion Date** 27.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise resul		ults	Units	Result	Tolerance
00	7	/	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.3	54.7	50.7	μg / m³	52.6	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	14.4	16.6	15.7	μg / m³	15.6	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.9	9.4	6.7	μg / m³	8.3	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.7	14.8	13.2	μg / m³	14.6	80
5	Ozone as O ₃	IS 5182(part-9)	8.4	9.9	7.2	μg / m³	8.5	100
6	Lead	IS-5182(Part22)	0.031	0.033	0.032	μg / m³	0.032	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.21	0.23	0.27	mg/m³	0.24	2
8	Ammonia as NH ₃	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	1.10	1.15	1.13	ng / m³	1.13	20

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory Renukamma

Carrill

Quality 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.

END OF REPORT

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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7281

Issue Date: 27.04.2023

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

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

Name of the location

Kallahalli Village

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling 5. Date of Sample Receipt 24.04.2023

6.

25.04.2023

Sample Code 7. 8.

7886

Analysis Starting Date Analysis Completion Date 9.

25.04.2023

Sample Tested as Received

27.04.2023

S.No	Parameter	Shift wise results Protocols		esults	Units	Result in	Tolerance limits	
	30		1	2	3		Avg.	illinits
10	Benzene as C ₆ H ₆	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 / m ³	<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

Quality 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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7282

Issue Date: 27.04.2023

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village,

Vyasanakere, Hanumananaili 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

24.04.2023 : 25.04.2023

6. Date of Sample Receipt7. Sample Code

: 7887

8. Analysis Starting Date

: 25.04.2023

9. Analysis Completion Date

: 27.04.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance limits
5	5.3.		1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	50.4	52.8	54.7	μg / m³	52.6	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	21.7	20.4	22.3	μg / m³	21.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.7	9.9	7.4	μg / m³	8.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.2	15.7	13.6	μg / m³	15.2	80
5	Ozone as O ₃	IS 5182(part-9)	9.9	8.7	7.2	μg / m³	8.6	100
6	Lead	IS-5182(Part22)	0.022	0.020	0.022	μg / m³	0.021	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.22	0.23	0.27	mg/m³	0.24	2
8	Ammonia as NH ₃	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	1.24	1.22	ng/m³	1.24	20

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory

Renukamma Quality Manager

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

-: END OF REPOR

^{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/A/F/16/03

Issue Date: 27.04.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7282

1 Name of the Dunion

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

(Metai & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

2. Name of the location

3. Sample Collected By

4. Particulars of the sample5. Date of Sampling

6. Date of Sample Receipt7. Sample Code

8. Analysis Starting Date9. Analysis Completion Date

10. Sample Tested as Received

: Vysanakere Village

: MSV Analytical Laboratories, Bellary.

: Sample collected with RDS APM460 and FDS GTI-131

24.04.2023 25.04.2023

: 25.04.2023 : 7887 : 25.04.2023

: 27.04.2023

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
	7.4		1	2	3			
10	Benzene as C ₆ H ₆	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
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Analysed by

Authorized Signatory

Renukamma Quality Manager

- END OF REPORT

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

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

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7283

Issue Date: 27.04.2023

Name of the Project

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 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample 5. Date of Sampling

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

24.04.2023

6.

25.04.2023

Sample Code 7.

7888

Analysis Starting Date 8. 9. **Analysis Completion Date** 25.04.2023 27.04.2023

Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result in Avg.	Tolerance limits
		1	1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.4	53.8	55.7	μg / m³	54.1	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.7	22.4	21.3	μg / m³	21.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.8	9.7	7.2	μg / m³	8.6	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.2	16.4	14.6	μg / m³	16.1	80
5	Ozone as O ₃	IS 5182(part-9)	9.4	8.3	7.7	μg / m³	8.5	100
6	Lead	IS-5182(Part22)	0.024	0.022	0.020	μg / m³	0.022	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.20	0.24	0.26	mg/m³	0.23	2
8	Ammonia as NH ₃	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	1.20	1.22	1.24	μg / m³	1.22	20

INFERENCE

As per NAAOS Standards

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

Analysed by

Authorized Signatory Renukamma **Quality Manager**

^{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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7283

Issue Date: 27.04.2023

Name of the Project

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 3.

4. Particulars of the sample

Date of Sampling

5. **Date of Sample Receipt**

7.

Sample Code **Analysis Starting Date**

8. **Analysis Completion Date** Sample Tested as Received **Gunda Village** MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

24.04.2023 25.04.2023 7888

25.04.2023 27.04.2023

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
J			1	2	3			
10	Benzene as C ₆ H ₆	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
INFERENCE	Report Status:- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory

Quality Manager

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

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

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7483

Issue Date: 02.05.2023

1. Name of the Project

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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receipt

27.04.2023

7. Sample Code

28.04.2023 8117

8. Analysis Starting Date

: 28.04.2023

9. Analysis Completion Date

02.05.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result	Tolerance limits
		2	1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	51.4	52.3	50.2	μg / m³	51.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	23.6	24.7	22.4	μg / m³	23.6	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.8	9.9	7.9	μg / m³	8.9	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.7	17.9	15.6	μg / m³	16.7	80
5	Ozone as O ₃	IS 5182(part-9)	10.2	10.1	10.0	μg / m³	10.1	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	0.26	0.28	0.24	mg/m³	0.26	2
8	Ammonia as NH ₃	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	1.31	1.30	μg / m³	1.31	20

INFERENCE

As per NAAQS Standards

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

Analysed by

100

END OF REPORT

Authorized Signatory Renukamma Quality 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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7483

Issue Date: 02.05.2023

1. Name of the Project

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 sample

: Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling

27.04.2023

6. Date of Sample Receipt

28.04.2023

7. Sample Code8. Analysis Starting Date

8117 28.04.2023

9. Analysis Completion Date

02.05.2023

10. Sample Tested as Received

10.	Sample	Tested	as Rec	eived	

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits
	70		1	2	3		Avg.	illines
10	Benzene as C ₆ H ₆	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

μg

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory

Renukamma Quality Manager

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

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7484

Issue Date: 02.05.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receipt

27.04.2023 28.04.2023

7. Sample Code

: 8119

8. Analysis Starting Date9. Analysis Completion Date

28.04.2023 02.05.2023

10. Sample Tested as Received

: 02.05

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance limits
			1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.1	53.2	51.2	μg / m³	52.2	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	16.3	17.4	15.4	μg / m³	16.4	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.2	8.7	6.7	μg / m³	7.5	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.8	16.1	16.0	μg / m³	16.3	80
5	Ozone as O ₃	IS 5182(part-9)	7.6	7.5	7.4	μg / m³	7.5	100
6	Lead	IS-5182(Part22)	0.024	0.023	0.022	μg / m³	0.023	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.33	0.31	mg/m³	0.32	2
8	Ammonia as NH ₃	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

Authorized Signatory

Renukamma Quality 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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7484

Issue Date: 02.05.2023

Name of the Project

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

(Metal & Ferro Alloys Plant)

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

Name of the location

Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling 5. 6. Date of Sample Receipt 27.04.2023

Sample Code 7.

28.04.2023 8119

Analysis Starting Date 8.

28.04.2023

Analysis Completion Date 9.

02.05.2023

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
			1	2	3			
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	μg / 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	ug/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

Quality 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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7485

Issue Date: 02.05.2023

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receipt

27.04.2023

7 Comple Code

28.04.2023

7. Sample Code8. Analysis Starting Date

: 8120 : 28.04.2023

9. Analysis Completion Date

02.05.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shir	ft wise res	ults	Units	Result	Tolerance
			1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	58.2	59.3	57.3	μg / m³	58.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	22.6	23.7	21.2	μg / m³	22.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	6.6	7.0	5.8	μg / m³	6.5	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.4	16	13.7	μg / m³	15.0	80
5	Ozone as O ₃	IS 5182(part-9)	8.4	8.3	8.1	μg / m³	8.3	100
6	Lead	IS-5182(Part22)	0.024	0.022	0.021	μg / m³	0.022	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.23	0.24	0.22	mg/m³	0.23	2
8	Ammonia as NH ₃	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	1.36	1.34	1.32	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

END OF RE

Authorized Signatory Renukamma Quality Manager

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7485

Issue Date: 02.05.2023

Name of the Project

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 sample 4.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling 5.

27.04.2023

Date of Sample Receipt 6.

28.04.2023

7. Sample Code 8120

Analysis Starting Date 8.

28.04.2023

Analysis Completion Date Q

02.05.2023

Sample Tested as Received

S.No F	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
	10		1	2	3			
10	Benzene as C ₆ H ₆	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

Quality 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/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7486

Issue Date: 02.05.2023

1. Name of the Project

: 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

MSV Analytical Laboratories, Bellary.

4. Particulars of the sample5. Date of Sampling

Sample collected with RDS APM460 and FDS GTI-131 27.04.2023

6. Date of Sample Receipt

28.04.2023

7. Sample Code

3.

8121

8. Analysis Starting Date

28.04.2023

Analysis Completion Date

02.05.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result in Avg.	Tolerance
	. <		1	1 2 3			in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	56.3	55.2	54.3	μg / m³	55.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.4	19.1	18.2	μg / m³	19.2	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.1	6.9	5.9	μg / m³	6.6	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.2	13	11.9	μg / m³	13.1	80
5	Ozone as O ₃	IS 5182(part-9)	<0.01	<0.01	<0.01	μg / m³	< 0.01	100
6	Lead	IS-5182(Part22)	7.1	7.0	6.9	μg / m³	7.1	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.21	0.22	0.20	mg/m³	0.21	2
8	Ammonia as NH ₃	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	1.31	1.30	1.29	μg / m³	1.20	20

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory

Renukamma Quality Manager

^{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, msvalbellarv2018@gmail.com, msv.lab01@gmail.com Web ID: www.msvalbellarv.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/7486

Issue Date: 02.05.2023

1. Name of the Project

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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sampling6. Date of Sample Receipt

27.04.2023 28.04.2023

7. Sample Code

8121

8. Analysis Starting Date

: 28.04.2023

9. Analysis Completion Date

: 02.05.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Sh	Shift wise results		Units	Result in	Result in Toleran	Tolerance
	10		1	2	3		iimits		
10	Benzene as C ₆ H ₆	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

Renukamma Quality 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/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/7293

Report Issued Date: 27.04.2023

Name of the Industry

M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

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

2. Stack ID

5.

Coke Screening& Store

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

4. Particulars of Sample Collected **Date of Sample Receipt**

Sample collected with VSS - 1 24.04.2023

Sample Code 6.

7902

Analysis Starting Date 7.

25.04.2023

Analysis Completion Date 8.

27.04.2023

Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	24.04.2023		
Fuel Used			
Stack Temperature (°C)	36		
Velocity (m/s)	6.0		
Height (m)	15mtrs AGL		
Diameter (m)	0.7		
Cross sectional area (m ²)	0.38465		

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	20.4	50

INFERENCE	As per GSR 277 (E) Standards. Report Status: The analyzed value for above measured parameter is
	within the limits.

Analysed by

Authorised Signatory

Quality Manager

^{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.



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

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MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/7292

Report Issued Date: 27.04.2023

1. Name of the Industry

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

(Metal & Ferro Alloys Plant)

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

2. Stack ID

: Coke Cutter

3. Sample Collected By

MSV Analytical Laboratories, Bellary.

4. Particulars of Sample Collected

Sample collected with VSS - 1

5. Date of Sample Receipt

: 24.04.2023

6. Sample Code

: 7901

7. Analysis Starting Date8. Analysis Completion Date

: 25.04.2023 : 27.04.2023

9. Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	24.04.2023
Fuel Used	-7
Stack Temperature (°C)	40
Velocity (m/s)	3.1
Height (m)	15mtrs AGL
Diameter (m)	0.7
Cross sectional area (m²)	0.38465

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	24.2	50

	As per KSPCB Standards
INFERENCE	Report Status:- The analyzed value for above measured parameter is
	within the limits.

Analysed by

Authorised Signatory

Renukamma

Quality Manager

(Som

-: END OF REPORT

^{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.

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

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/7099

Report Issued Date: 24.04.2023

1. Name of the Industry

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

(Metal & Ferro Alloys Plant)

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

2. Stack ID

: Coal Crushing Area

3. Sample Collected By

: MSV Analytical Laboratories, Bellary.

4. Particulars of Sample Collected

: Sample collected with VSS - 1

5. Date of Sample Receipt

: 21.04.2023

6. Sample Code

: 7522

7. Analysis Starting Date

: 22.04.2023

8. Analysis Completion Date

: 24.04.2023

9. Sample Tested as Received

GENERAL DETAILS

direction .			
Date of Monitoring	21.04.2023		
Fuel Used			
Stack Temperature (°C)	37		
Velocity (m/s)	6.2		
Height (m)	15mtrs AGL		
Diameter (m)	0.75		
Cross sectional area (m²)	0.44156		

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	27.2	50

	the state of the s
	As per KSPCB Standards
INFERENCE	Report Status:- The analyzed value for above measured parameter is
	within the limits.

Analysed by

Authorised Signatory

Renukam

Quality Manager

-: END OF REPORT

^{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.



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

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

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/6967

Name of the Industry

Report Issued Date: 24.04.2023

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

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

2. Stack ID

3. Sample Collected By

4. **Particulars of Sample Collected**

Date of Sample Receipt 5.

Sample Code 6.

Analysis Starting Date 7.

Analysis Completion Date 8. Sample Tested as Received

Hospet Taluk, Bellary District, Karnataka.

Ferro Alloy Arc Furnace 5

MSV Analytical Laboratories, Bellary.

Sample collected with VSS - 1

20.04.2023

7521

21.04.2023

24.04.2023

GENERAL DETAILS

Date of Monitoring	20.04.2023
Fuel Used	W/O
Stack Temperature (°C)	96
Velocity (m/s)	7.6
Height (m)	35 mtrs AGL
Diameter (m)	2.5
Cross sectional area (m²)	4.90625
Flow/Discharge Rate of Gas Nm³/Hr	120811.5

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	30.8	150
Sulphur dioxide	IS-11255(Part2) – 1985	mg/Nm³	24.2	800
Nitrogen dioxide	IS-11255(Part7) - 2005	mg/Nm³	39.2	500
Carbon Monoxide as(CO)	IS 13270	%	0.33	Max 1%
Oxygen as O2	Instrument Method	%	5.1	

As per GSR 277 (E) Standards. **INFERENCE**

Report Status:- The analyzed value for above measured parameter is

within the limits.

Analysed by

Authorised Signatory

Repul

Quality Manager

^{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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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.msvalbella

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No:

Report Issued Date: 24.04.2023

Name of the Industry

M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

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

2. Stack ID Ferro Alloy Arc Furnace 3

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of Sample Collected 4.

Sample collected with VSS - 1

5. Date of Sample Receipt

6. Sample Code

7. **Analysis Starting Date**

8.

Analysis Completion Date Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	
Fuel Used	
Stack Temperature (°C)	
Velocity (m/s)	
Height (m)	35 mtrs AGL
Diameter (m)	2.5
Cross sectional area (m²)	4.90625
Flow/Discharge Rate of Gas Nm ³ /Hr	

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	Shut down	150
Sulphur dioxide	IS-11255(Part2) – 1985	mg/Nm³		800
Nitrogen dioxide	IS-11255(Part7) – 2005	mg/Nm³		500
Carbon Monoxide as(CO)	IS 13270	%		Max 1%
Oxygen as O2	Instrument Method	%		

As per GSR 277 (E) Standards. INFERENCE Report Status:- The analyzed value for above measured parameter is within the limits.

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

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/6747

1. Name of the Industry

Report Issued Date: 20.04.2023

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

(Metal & Ferro Alloys Plant)

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

2. Stack ID : Coke Oven Battery – Passes Through WHRB-1

3. Sample Collected By : MSV Analytical Laboratories, Bellary.

4. Particulars of Sample Collected : Sample collected with VSS – 1

5. Date of Sample Receipt : 17.04.2023

6. Sample Code : 7237

7. Analysis Starting Date : 18.04.2023 8. Analysis Completion Date : 20.04.2023

9. Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	17.04.2023
Fuel Used	VANS
Stack Temperature (°C)	145
Velocity (m/s)	7.4
Height (m)	60 mtrs AGL
Diameter (m)	4.6
Cross sectional area (m²)	16.61
Flow/Discharge Rate of Gas Nm³/Hr	<mark>2</mark> 75061.6

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) – 1985	mg/Nm³	24.3	50
Sulphur dioxide	IS-11255(Part2) – 1985	mg/Nm³	21.2	800
Nitrogen dioxide	IS-11255(Part7) – 2005	mg/Nm³	56.4	500
Carbon Monoxide as(CO)	IS 13270	%	0.24	Max 1%
Oxygen as O2	Instrument Method	%	5.1	

		_
INFERENCE	As per GSR 277 (E) Standards. Report Status:- The analyzed value for above measured parameter is	
	within the limits.	

Analysed by

Authorised Signatory

Renukamama

Quality Manager



^{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/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/6748

Name of the Industry

Report Issued Date: 20.04.2023

(Metal & Ferro Alloys Plant)

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

2. Stack ID

3. Sample Collected By

Particulars of Sample Collected 4.

Date of Sample Receipt 5.

Sample Code 6.

Analysis Starting Date 7.

Analysis Completion Date 8. Sample Tested as Received M/s. The Sandur Manganese & Iron Ores Ltd.

MSV Analytical Laboratories, Bellary.

Sample collected with VSS - 1

17.04.2023

7238

18.04.2023

20.04.2023

GENERAL DETAILS

GENERALE	Z L T T T L T T T T T T T T T T T T T T
Date of Monitoring	17.04.2023
Fuel Used	
Stack Temperature (°C)	139
Velocity (m/s)	7.3
Height (m)	60 mtrs AGL
Diameter (m)	4.6
Cross sectional area (m²)	16.61
Flow/Discharge Rate of Gas Nm³/Hr	425747.52

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) – 1985	mg/Nm³	21.3	50
Sulphur dioxide	IS-11255(Part2) – 1985	mg/Nm³	30.2	800
Nitrogen dioxide	IS-11255(Part7) – 2005	mg/Nm³	53.2	500
Carbon Monoxide as(CO)	I <mark>S 13270</mark>	%	0.26	Max 1%
Oxygen as O2	Instrument Method	%	5.1	

	As per GSR 277 (E) Standards.
INFERENCE	Report Status :- The analyzed value for above measured parameter is
	within the limits.

Analysed by

Authorised Signatory

Quality Manager

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No: MSVAL/2023/6396

Report Issued Date: 17.04.2023

1.	Name of the Industry		M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
2.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.
3.	Name of the Location	:	Near ARC Furnace
4.	Particulars of the sample collected	:	Sample collected with High Volume Sampler
5.	Date of Sample Receipt	:	12.04.2023
6.	Sample Code		6920
7.	Analysis Starting Date		13.04.2023
8.	Analysis Completion Date	-	17.04.2023
9.	Sample Tested as Received		

S.No	Parameter	Protocols	Shift	t wise res	sults	Units	Result	Standards Max Limit
	70		1	2	3		m Avg.	GSR277 (E)
1	Suspended Particulate Matter	IS-5182(Part-4) -2017	758.2	753.2	748.2	μg / m³	753.2	3000
2	Sulphur Dioxide as SO ₂	CPCB Procedure	14.6	12.3	13.7	μg / m³	13.5	150
3	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	17.8	16.2	13.7	μg / m³	15.9	120
4	Lead as Pb	IS-5182 (Part22) – 2004	0.046	0.045	0.037	μg / m ³	0.043	2
5	Carbon Monoxide as	MSVAL/SOP/A/ 007	540.2	532.1	510.7	μg / m³	527.7	5000

INFERENCE	Standards as per GSR277 (E)
	Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by

Authorised Signatory

Renukamma

Quality Manager

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

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^{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/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No: MSVAL/2023/6397 Report Issued Date: 17.04.2023

1 03	Report No. MSVAL/2025/0557		Atoport abbada zato 12.10 11=0=0					
1.	Name of the Industry	:	M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.					
2.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.					
3.	Name of the Location	:	Near Power Plant					
4.	Particulars of the sample collected	:	Sample collected with High Volume Sampler					
5.	Date of Sample Receipt	:	12.04.2023					
6.	Sample Code	:	6929					
7.	Analysis Starting Date		13.04.2023					
8.	Analysis Completion Date		17.04.2023					
9.	Sample Tested as Received	1 5 %						

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Standards Max Limit
	70		1	2	3		m Avg.	GSR277 (E)
1	Suspended Particulate Matter	IS-5182(Part-4) -2017	570.2	565.2	560.2	μg / m³	565.2	3000
2	Sulphur Dioxide as SO ₂	CPCB Procedure	12.9	11.1	10.7	μg / m³	11.6	150
3	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	17.6	16.4	12.8	μg / m³	15.6	120
4	Lead as Pb	IS-5182 (Part22) – 2004	0.040	0.036	0.041	μg / m³	0.039	2
5	Carbon Monoxide as	MSVAL/SOP/A/ 007	524.3	506.7	521.2	μg / m³	517.4	5000

INFERENCE	Standards as per GSR277 (E)
	Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by

Authorised Signatory

Renukamma

Quality 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.

END OF REPORT:

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No: MSVAL/2023/6398

Report Issued Date: 17.04.2023

1.	Name of the Industry	:	M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
2.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.
3.	Name of the Location	:	Near Coal Shed Area
4.	Particulars of the sample collected	:	Sample collected with High Volume Sampler
5.	Date of Sample Receipt		12.04.2023
6.	Sample Code		6931
7.	Analysis Starting Date		13.04.2023
8.	Analysis Completion Date	:	17.04.2023
9.	Sample Tested as Received	H FW.	

S.No	Parameter	Protocols	Shift	wise res	sults	Units	Result in Avg.	Standards Max Limit
	/C	1	1	2	3		m Avg.	GSR277 (E)
1	Suspended Particulate Matter	IS-5182(Part-4) -2017	852.6	847.6	842.6	μg / m³	847.6	3000
2	Sulphur Dioxide as SO ₂	CPCB Procedure	14.3	12.4	11.1	μg / m³	12.6	150
3	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	17.6	16.8	15.6	μg / m³	16.7	120
4	Lead as Pb	IS-5182 (Part22) – 2004	0.051	0.053	0.050	μg / m³	0.051	. 2
5	Carbon Monoxide as	MSVAL/SOP/A/ 007	542.1	532.3	518.7	μg / m³	531.0	5000
6	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	2

INFERENCE Standards as per GSR277 (E)
Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by

Authorised Signatory

Renukamma

Quality Manager

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^{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/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Report Issued Date: 20.04.2023 Test Report No: MSVAL/2023/6399

1.	Name of the Industry	:	M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
2.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.
3.	Name of the Location		Near Coke Oven Plant
4.	Particulars of the sample collected	:	Sample collected with High Volume Sampler
5.	Date of Sample Receipt	:	15.04.2023
6.	Sample Code		6931
7.	Analysis Starting Date		17.04.2023
8.	Analysis Completion Date	144.0	20.04.2023
9.	Sample Tested as Received		R 10-37

S.No	Parameter	Protocols	Shif	t wise res	sults	Units	Result in Avg.	Standards Max Limit
	10	,	1	2	3		mary.	GSR277 (E)
1	Suspended Particulate Matter	IS-5182(Part-4) -2017	658.4	653.4	648.4	μg / m³	653.4	3000
2	Sulphur Dioxide as SO ₂	CPCB Procedure	13.4	12.1	11.8	μg / m³	12.4	150
3	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	16.3	17.2	11.4	μg / m³	15.0	120
4	Lead as Pb	IS-5182 (Part22) – 2004	0.045	0.047	0.036	μg / m³	0.043	2
5	Carbon Monoxide as	MSVAL/SOP/A/ 007	594.1	524.2	515.7	μg / m³	544.7	5000
6	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	2

INFERENCE Standards as per GSR277 (E) Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by

Authorised Signatory

Quality Manager

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

1. I he results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed amonths 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/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No: MSVAL/2023/6400

Report Issued Date: 20.04.2023

1.	Name of the Industry		M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.					
2.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.					
3.	Name of the Location	:	Near Main Gate					
4.	Particulars of the sample collected	7	Sample collected with High Volume Sampler					
5.	Date of Sample Receipt		15.04.2023					
6.	Sample Code	-	6932					
7.	Analysis Starting Date	:	17.04.2023					
8.	Analysis Completion Date	1	20.04.2023					
9.	Sample Tested as Received	10	A MANUAL TO THE PARTY OF THE PA					

S.No	Parameter	Protocols	Shift	wise res	ults	Units	Result in Avg.	Standards Max Limit
	Q		1	2	3			GSR277 (E)
1	Suspended Particulate Matter	IS-5182(Part-4) -2017	362.6	357.6	352.6	μg / m³	357.6	3000
2	Sulphur Dioxide as SO ₂	CPCB Procedure	8.2	7.8	6.5	μg / m³	7.5	150
3	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	9.8	8.6	9.3	μg / m³	9.2	120
4	Lead as Pb	IS-5182 (Part22) – 2004	0.031	0.028	0.022	μg / m³	0.027	2
5	Carbon Monoxide as	MSVAL/SOP/A/ 007	324.1	315.4	298.7	μg / m³	312.7	5000

INFERENCE Standards as per GSR277 (E) Report Status: - The analyzed values for above measured parameter are within the limits.

Renukamma

Quality Manager

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

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^{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/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No: MSVAL/2023/6401

Report Issued Date: 20.04.2023

1.	Name of the Industry	•	M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
2.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.
3.	Name of the Location	:	Near iron Ore Beneficiation Plant
4.	Particulars of the sample collected	:	Sample collected with High Volume Sampler
5.	Date of Sample Receipt	9	15.04.2023
6.	Sample Code		6933
7.	Analysis Starting Date	-	17.04.2023
8.	Analysis Completion Date		20.04.2023
9.	Sample Tested as Received		TENT

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Standards Max Limit
			1	2	3			GSR277 (E)
1	Suspended Particulate Matter	IS-5182(Part-4) -2017	764.2	759.2	754.2	μg / m³	759.2	3000
2	Sulphur Dioxide as SO ₂	CPCB Procedure	14.5	13.2	10.2	μg / m³	12.6	150
3	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	17.8	16.1	13.4	μg / m³	15.8	120
4	Lead as Pb	IS-5182 (Part22) – 2004	0.057	0.052	0.053	μg / m³	0.054	2
5	Carbon Monoxide as	MSVAL/SOP/A/ 007	532.4	516.2	518.3	μg / m³	522.3	5000

INFERENCE	Standards as per GSR277 (E)
	Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by

Authorised Signatory

Renukamma

Quality 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/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6737

1. Name of the Industry

Report Issued Date: 22.04.2023

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

(Metal & Ferro Alloys Plant)

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

: R.O. Water at SMIORE Plant Premises

: MSV Analytical Laboratories, Bellary

: 2 Liters

: Good/satisfactory

: 17.04.2023

: 18.04.2023

: 22.04.2023

2. Name of the sample location

3. Sample Collected By

4. Sample Quantity

5. Sample Description/condition

6. Date of sample Collection

7. Analysis Starting Date8. Analysis completion Date

9. Sample Tested as Received

		400			IS 10500-2012		
S.No	Parameters	Protocol	Unit	Result	Acceptable limit	Permissible limit	
		Physical pa	rameters	5			
1	Color	IS: 3025(part-4)	\$ 1-1-1	Colorless	5	15	
2	Odor	IS: 3025(part-5)	- 17	Agreeable	Agreeable	Agreeable	
3	pH	IS: 3025(part-11)		7.48	6.5-8.5	No Relaxation	
4	Turbidity	IS: 3025(part-10)	NTU	0.34	1	5	
	A	Chemical p	arameter	S			
5	Alkalinity	IS: 3025(part-23)	mg/l	68	200	600	
6	Total Dissolved Solids	IS : 3025(part-16)	mg/l	540	500	2000	
7	Total Hardness as CaCO ₃	IS : 3025(part-21)	mg/l	86.6	200	600	
8	Calcium as Ca	IS: 3025(part-40)	mg/l	26.2	75	200	
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	5.12	30	100	
10	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	16.6	200	400	
11	Chloride as Cl	IS: 3025(part-32)	mg/l	38.9	250	1000	
12	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	0.50	45	No Relaxation	
13	Iron as Fe	IS: 3025(part-34)	mg/l	BDL(0.004)	0.3	No Relaxation	
14	Fluoride as F	IS: 3025(part-60)	mg/l	0.14	1.0	1.5	
15	Sodium as Na	IS 3025(part 45):1993	mg/l	5.5			
16	Potassium as K	Is 3025(part 45):1993	mg/l	4.3			

INFERENCE	IS 10500 - 2012 Standards
	BDL – Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the Acceptable
	limits.

Analysed by

BALLARI PA

Authorised Signatory

Renukamma

Quality Manager

-: END OF REPORT:-

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

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

MSVAL/W/F/13/03

Report Issued Date: 22.04.2023

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

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

R.O. Water at SMIORE Plant Premises

(Metal & Ferro Alloys Plant)

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6737

Name of the Industry

Sample Collected By 3. 4. Sample Quantity

Sample Description/condition 5. Date of sample Collection

Analysis Starting Date 7. **Analysis completion Date** 8. Sample Tested as Received

2. Name of the sample location

MSV Analytical Laboratories, Bellary Good/satisfactory

17.04.2023 18.04.2023 22.04.2023

					IS 10500-2012	
S.No	Parameters	Protocol	Unit	Result	Acceptable limit	Permissible limit
		Chemical para	meters			
17	Copper	IS: 3025(part-42)	mg/l	0.004	0.05	1.5
18	Manganese	IS: 3025(part-59)	mg/l	0.002	0.1	0.3
19	Mercury	IS:3025(part- 48)/mercury analyser	mg/l	0.003	0.001	No Relaxation
20	Cadmium	IS: 3025(part-41)	mg/l	0.003	0.01	No Relaxation
21	Lead	IS: 3025(part-47)	mg/l	0.001	0.05	No Relaxation
22	Chromium	IS: 3025(part-52)	mg/l	0.005	0.05	No Relaxation
23	Selenium	IS: 3025(part-56)	mg/l	BDL	0.01	No Relaxation
24	Zinc	IS: 3025(part-49)	mg/l	BDL	5	15

INFERENCE	IS 10500 – 2012 Standards
	BDL - Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the
	Acceptable limits.

Analysed by

9.

Authorised Signatory

Renukamma

Quality Manager

-: END OF REPOR

^{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/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2023/6738

1. Name of the Industry

(Metal & Ferro Alloys Plant)

Sample Type

Sample Collected By

4. Sample Quantity

5. Sample description/condition 6. Date of sample Receipt

7. Analysis Starting Date

8. Analysis Completion Date

9. Sample tested as Received

Report Issued Date: 22.04.2023

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

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

R.O. Water at SMIORE Plant Premises

MSV Analytical Laboratories, Bellary.

250 ml (Sterilized Bottle)

Good/satisfactory

17.04.2023

18.04.2023

22.04.2023

RESULTS

Parameters	Protocol	Unit	Result	IS 10500:2018 Specification
Total Coliform Bacteria	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml
Escherichia Coli	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml

INFERENCE IS - 10500 -2018 Standards Report Status: - The above parameters are within The limits.

Verified by

Authorized Signature

Sr.Microbiologist

Eswari

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

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MSVAL/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6739

Name of the Industry

2.

3.

4.

Report Issued Date: 22.04.2023

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

(Metal & Ferro Alloys Plant)

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

Name of the sample location

Sample Collected By MSV Analytical Laboratories, Bellary

Sample Quantity 2 Liters

Sample Description/condition 5.

Date of sample Collection 6. 7. **Analysis Starting Date**

8. **Analysis completion Date**

Sample Tested as Received

Bore Well Water at Rajapura Village

Good/satisfactory

17.04.2023 18.04.2023

22.04.2023

					IS 10500-2012		
S.No	Parameters	Protocol	Unit	Result	Acceptable limit	Permissible limit	
		Physical pa	rameters	s			
1	Color	IS: 3025(part-4)	7	Colorless	5	15	
2	Odor	IS: 3025(part-5)		Agreeable	Agreeable	Agreeable	
3	рН	IS: 3025(part-11)	- <u> </u>	7.58	6.5-8.5	No Relaxation	
4	Turbidity	IS: 3025(part-10)	NTU	0.54	1	5	
	44.	Chemical p	arameter	'S			
5	Alkalinity	IS: 3025(part-23)	mg/l	210	200	600	
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	1024	500	2000	
7	Total Hardness as CaCO ₃	IS: 3025(part-21)	mg/l	348.7	200	600	
8	Calcium as Ca	IS: 3025(part-40)	mg/l	76.6	75	200	
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	38.19	30	100	
10	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	52.2	200	400	
11	Chloride as Cl	IS: 3025(part-32)	mg/l	180.9	250	1000	
12	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	1.16	45	No Relaxation	
13	Iron as Fe	IS: 3025(part-34)	mg/l	BDL(0.004)	0.3	No Relaxation	
14	Fluoride as F	IS: 3025(part-60)	mg/l	0.44	1.0	1.5	
15	Sodium as Na	IS 3025(part 45):1993	mg/l	20.8			
16	Potassium as K	Is 3025(part 45):1993	mg/l	11.6			

INFERENCE	IS 10500 - 2012 Standards
	BDL – Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the Permissible
	limits.

Analysed by

Authorised Signatory

Renukamma

Quality Manager

^{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/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6739

Report Issued Date: 22.04.2023

1. Name of the Industry

M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village,

Hospet Taluk, Bellary District, Karnataka.

Name of the sample location
 Sample Collected By

Bore Well Water at Rajapura VillageMSV Analytical Laboratories, Bellary

4. Sample Quantity

: 2 Liters

5. Sample Description/condition

: Good/satisfactory

6. Date of sample Collection7. Analysis Starting Date

: 17.04.2023

7. Analysis Starting Date8. Analysis completion Date

: 18.04.2023 : 22.04.2023

Sample Tested as Received

		Parameters Protocol			The same	IS 105	00-2012
S.No	Parameters			Unit	Result	Acceptable limit	Permissible limit
		1	Chemical para	meters			
17	Copper	1	IS: 3025(part-42)	mg/l	0.006	0.05	1.5
18	Manganese		IS: 3025(part-59)	mg/l	0.004	0.1	0.3
19	Mercury	1	IS:3025(part- 48)/mercury analyser	mg/l	0.002	0.001	No Relaxation
20	Cadmium		IS: 3025(part-41)	mg/l	0.002	0.01	No Relaxation
21	Lead		IS: 3025(part-47)	mg/l	0.002	0.05	No Relaxation
22	Chromium		IS: 3025(part-52)	mg/l	0.003	0.05	No Relaxation
23	Selenium		IS: 3025(part-56)	mg/l	BDL	0.01	No Relaxation

INFERENCE	IS 10500 - 2012 Standards
	BDL - Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the
	Permissible limits.

IS: 3025(part-49)

Analysed by

24 Zinc

Authorised Signatory

Renukamma

BDL

Quality Manager

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MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2023/6740

Report Issued Date: 22.04.2023

1. Name of the Industry

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

Vy<mark>a</mark>sanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

2. Sample Type

3. Sample Collected By

Bore Well Water at Rajapura Village
MSV Analytical Laboratories, Bellary.

4. Sample Quantity

250 ml (Sterilized Bottle)

5. Sample description/condition

: Good/satisfactory

6. Date of sample Receipt7. Analysis Starting Date

: 17.04.2023

8. Analysis Completion Date

18.04.2023 22.04.2023

9. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	IS 10500:2018 Specification
Total Coliform Bacteria	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml
Escherichia Coli	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml

INFERENCE	IS - 10500 -2018 Standards
	Report Status: - The above parameters are within The limits.

Verified by

Quali

Sr.Microbiologist Eswari

Authorized Signature

**End of the Report

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/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6741

Name of the Industry

Report Issued Date: 22.04.2023

(Metal & Ferro Alloys Plant)

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

2. Name of the sample location

Sample Collected By 3.

Sample Quantity 4.

Sample Description/condition 5.

Date of sample Collection 6.

Analysis Starting Date 7. 8. **Analysis completion Date**

Sample Tested as Received

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

Bore Well Water at Hanumanhalli Village

MSV Analytical Laboratories, Bellary

2 Liters

Good/satisfactory

17.04.2023

18.04.2023

22.04.2023

					IS 10	500-2012
S.No Parameters		Protocol	Unit	Result	Acceptable limit	Permissible limit
		Physical pa	rameters	3		
1	Color	IS: 3025(part-4)		Colorless	5	15
2	Odor	IS: 3025(part-5)		Agreeable	Agreeable	Agreeable
3	рН	IS: 3025(part-11)		6.84	6.5-8.5	No Relaxation
4	Turbidity	IS: 3025(part-10)	NTU	0.40	1	5
4	PLI	Chemical p	arameter	S		
5	Alkalinity	IS: 3025(part-23)	mg/l	160	200	600
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	636	500	2000
7	Total Hardness as CaCO ₃	IS: 3025(part-21)	mg/l	284.4	200	600
8	Calcium as Ca	IS: 3025(part-40)	mg/l	54.2	75	200
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	36.18	30	100
10	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	58.7	200	400
11	Chloride as Cl	IS: 3025(part-32)	mg/l	160.6	250	1000
12	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	2.32	45	No Relaxation
13	Iron as Fe	IS: 3025(part-34)	mg/l	BDL(0.004)	0.3	No Relaxation
14	Fluoride as F	IS: 3025(part-60)	mg/l	0.40	1.0	1.5
15	Sodium as Na	IS 3025(part 45):1993	mg/l	12.8		_ ====
16	Potassium as K	Is 3025(part 45):1993	mg/l	7.5		

INFERENCE	IS 10500 - 2012 Standards
	BDL - Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the Permissible
	limits.

Analysed by

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

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-: END OF REPOR

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Authorised Signatory

Quality Manager



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

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MSVAL/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6741

Name of the Industry

Report Issued Date: 22.04.2023

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

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

Name of the sample location 2

Sample Collected By 3.

Sample Quantity 4.

Sample Description/condition 5.

Date of sample Collection 6. **Analysis Starting Date** 7.

Analysis completion Date 8.

Sample Tested as Received

(Metal & Ferro Alloys Plant)

Bore Well Water at Hanumanhalli Village

MSV Analytical Laboratories, Bellary

2 Liters

Good/satisfactory

17.04.2023

18.04.2023

22.04.2023

		10 / TE/F			IS 10500-2012	
S.No	Parameters	Parameters Protocol	Unit	Result	Acceptable limit	Permissible limit
		Chemical para	meters	-		
17	Copper	IS: 3025(part-42)	mg/l	0.003	0.05	1.5
18	Manganese	IS: 3025(part-59)	mg/l	0.004	0.1	0.3
19	Mercury	IS:3025(part- 48)/mercury analyser	mg/l	0.002	0.001	No Relaxation
20	Cadmium	IS: 3025(part-41)	mg/l	0.004	0.01	No Relaxation
21	Lead	IS: 3025(part-47)	mg/l	0.002	0.05	No Relaxation
22	Chromium	IS: 3025(part-52)	mg/l	0.004	0.05	No Relaxation
23	Selenium	IS: 3025(part-56)	mg/l	BDL	0.01	No Relaxation
24	Zinc	IS: 3025(part-49)	mg/l	BDL	5	15

INFERENCE	IS 10500 – 2012 Standards
	BDL – Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the
	Permissible limits.

Analysed by

Authorised Signatory

Quality Manager

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

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

MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2023/6742

Report Issued Date: 22.04.2023

1. Name of the Industry

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

(Metal & Ferro Alloys Plant)

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

Sample Type

Bore Well Water at Hanumanhalli Village

Sample Collected By 3.

Sample Quantity

MSV Analytical Laboratories, Bellary. 250 ml (Sterilized Bottle)

5. Sample description/condition

Good/satisfactory

6. Date of sample Receipt

17.04.2023

7. Analysis Starting Date

18.04.2023

8. Analysis Completion Date

22.04.2023

9. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	IS 10500:2018 Specification
Total Coliform Bacteria	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml
Escherichia Coli	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml

INFERENCE IS - 10500 -2018 Standards Report Status: - The above parameters are within The limits.

**End of the

Verified by

Authorized Signature

Council Microbiologist

Eswari

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

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

MSVAL/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6743

Name of the sample location

Sample Description/condition

Date of sample Collection

1. Name of the Industry

2.

3.

4.

5.

6. 7. Report Issued Date: 22.04.2023

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

(Metal & Ferro Alloys Plant)

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

: Bore Well Water at Munirabad Village

: MSV Analytical Laboratories, Bellary

: 2 Liters

: Good/satisfactory

: 17.04.2023

: 18.04.2023

Analysis Starting Date

: 22.04.2023

8. Analysis completion Date9. Sample Tested as Received

Sample Collected By

Sample Quantity

IS 10500-2012 **Protocol** Unit Acceptable S.No **Parameters** Result Permissible limit limit Physical parameters 15 Color IS: 3025(part-4) Colorless 5 1 IS: 3025(part-5) 2 Odor Agreeable Agreeable Agreeable pН IS: 3025(part-11) 3 8.12 6.5-8.5 No Relaxation 4 Turbidity IS: 3025(part-10) NTU 0.40 5 **Chemical parameters** Alkalinity IS: 3025(part-23) 200 600 5 mg/l 160 Total Dissolved 6 IS: 3025(part-16) 774 500 2000 mg/l Solids Total Hardness as IS: 3025(part-21) 7 mg/l 294.5 200 600 CaCO₃ IS: 3025(part-40) 8 Calcium as Ca 68.7 75 200 mg/l 9 Magnesium as Mg IS: 3025(part-46) mg/l 29.82 30 100 Sulphate as SO₄ IS: 3025(part-24) 87.6 400 10 mg/l 200 Chloride as Cl IS: 3025(part-32) 1000 11 mg/l 162.9 250 Nitrate as NO₃ IS: 3025(part-34) 2.50 No Relaxation 12 mg/l 45 IS: 3025(part-34) BDL(0.004) 13 Iron as Fe mg/l 0.3 No Relaxation 14 Fluoride as F IS: 3025(part-60) 0.44 1.0 1.5 mg/l 15 Sodium as Na IS 3025(part 45):1993 mg/l 16.6 ---Is 3025(part 45):1993 12.3 16 Potassium as K mg/l ---

INFERENCE | IS 10500 - 2012 Standards

BDL - Below Detectable Limit

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

Analysed by

Authorised Signatory

Renukamma Quality Manager

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

ŔEPORT:-

^{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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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/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6743

Report Issued Date: 22.04.2023

1. Name of the Industry

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

(Metal & Ferro Alloys Plant)

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

2. Name of the sample location

: Bore Well Water at Munirabad Village

3. Sample Collected By

: MSV Analytical Laboratories, Bellary

4. Sample Quantity

: 2 Liters

5. Sample Description/condition

: Good/satisfactory : 17.04.2023

6. Date of sample Collection7. Analysis Starting Date

18.04.2023

8. Analysis completion Date

18.04.2023

9. Sample Tested as Received

					IS 10500-2012		
S.No	Parameters	Protocol	Unit	Result	Acceptable limit	Permissible limit	
	Chemical parameters						
17	Copper	IS: 3025(part-42)	mg/l	0.002	0.05	1.5	
18	Manganese	IS: 3025(part-59)	mg/l	0.001	0.1	0.3	
19	Mercury	IS:3025(part- 48)/mercury analyser	mg/l	0.002	0.001	No Relaxation	
20	Cadmium	IS: 3025(part-41)	mg/l	0.004	0.01	No Relaxation	
21	Lead	IS: 3025(part-47)	mg/l	0.001	0.05	No Relaxation	
22	Chromium	IS: 3025(part-52)	mg/l	0.002	0.05	No Relaxation	
23	Selenium	IS: 3025(part-56)	mg/l	BDL	0.01	No Relaxation	
24	Zinc	IS: 3025(part-49)	mg/l	BDL	5	15	

INFERENCE	IS 10500 - 2012 Standards
	BDL - Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the
	Permissible limits.

Analysed by

Authorised Signatory

Renukamma Quality Manager

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/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2023/6744

Report Issued Date: 22.04.2023

1. Name of the Industry

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

(Metal & Ferro Alloys Plant)

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

2. Sample Type

Bore Well Water at Munirabad Village

3. Sample Collected By

: MSV Analytical Laboratories, Bellary.

4. Sample Quantity

: 250 ml (Sterilized Bottle)

5. Sample description/condition

: Good/satisfactory

6. Date of sample Receipt

: 17.04.2023

7. Analysis Starting Date

: 18.04.2023

8. Analysis Completion Date

: 22.04.2023

9. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	IS 10500:2018 Specification
Total Coliform Bacteria	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml
Escherichia Coli	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml

INFERENCE IS – 10500 -2018 Standards
Report Status: - The above parameters are within The limits.

Verified by

Authorized Signature

Sr.Microbiologist Eswari

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.



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

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

MSVAL/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6745

Name of the sample location

Sample Description/condition

Date of sample Collection

1. Name of the Industry

2.

3.

4.

5.

6.

Report Issued Date: 22.04.2023 M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village,

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

: Bore Well Water at Vysanakere Village

: MSV Analytical Laboratories, Bellary

: 2 Liters

: Good/satisfactory

: 17.04.2023

: 18.04.2023 : 22.04.2023

7. Analysis Starting Date

Sample Quantity

8. Analysis completion Date

Sample Collected By

9. Sample Tested as Received

			S DAG		IS 10500-2012		
S.No	Parameters	Parameters Protocol Unit Result		Result	Acceptable limit	Permissible limit	
		Physical pa	rameters	3			
1	Color	IS: 3025(part-4)		Colorless	5	15	
2	Odor	IS: 3025(part-5)		Agreeable	Agreeable	Agreeable	
3	рН	IS: 3025(part-11)		7.48	6.5-8.5	No Relaxation	
4	Turbidity	IS: 3025(part-10)	NTU	0.54	1	5	
		Chemical p	arameter	s			
5	Alkalinity	IS: 3025(part-23)	mg/l	140	200	600	
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	960	500	2000	
7	Total Hardness as CaCO ₃	IS: 3025(part-21)	mg/l	314.8	200	600	
8	Calcium as Ca	IS: 3025(part-40)	mg/l	68.4	75	200	
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	34.94	30	100	
10	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	88.7	200	400	
11	Chloride as Cl	IS: 3025(part-32)	mg/l	124.9	250	1000	
12	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	1.18	45	No Relaxation	
13	Iron as Fe	IS: 3025(part-34)	mg/l	BDL(0.004)	0.3	No Relaxation	
14	Fluoride as F	IS: 3025(part-60)	mg/l	0.44	1.0	1.5	
15	Sodium as Na	IS 3025(part 45):1993	mg/l	16.6			
16	Potassium as K	Is 3025(part 45):1993	mg/l	8.9			

INFERENCE	IS 10500 - 2012 Standards
	BDL - Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the Permissible
	limits.

Analysed by

Authorised Signatory

Renukamma Quality Manager

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

END OF REPOR

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

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

MSVAL/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6745

Report Issued Date: 22.04.2023

1. Name of the Industry

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

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

2. Name of the sample location

Bore Well Water at Vysanakere Village

3. Sample Collected By

MSV Analytical Laboratories, Bellary

4. Sample Quantity

2 Liters

5. Sample Description/condition

: Good/satisfactory

6. Date of sample Collection

: 17.04.2023 : 18.04.2023

7. Analysis Starting Date8. Analysis completion Date

: 22.04.2023

9. Sample Tested as Received

: 22.04.20

	4	4	_	14	IS 10500-2012	
S.No	Parameters	Protocol	Unit	Result	Acceptable limit	Permissible limit
		Chemical para	ameters			
17	Copper	IS: 3025(part-42)	mg/l	0.004	0.05	1.5
18	Manganese	IS: 3025(part-59)	mg/l	0.003	0.1	0.3
19	Mercury	IS:3025(part- 48)/mercury analyser	mg/l	0.002	0.001	No Relaxation
20	Cadmium	IS: 3025(part-41)	mg/l	0.002	0.01	No Relaxation
21	Lead	IS: 3025(part-47)	mg/l	0.004	0.05	No Relaxation
22	Chromium	IS: 3025(part-52)	mg/l	0.002	0.05	No Relaxation
23	Selenium	IS: 3025(part-56)	mg/l	BDL	0.01	No Relaxation
24	Zinc	IS: 3025(part-49)	mg/l	BDL	5	15

INFERENCE	IS 10500 - 2012 Standards
	BDL - Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the
	Permissible limits.

Analysed by

Authorised Signatory

Renukamma Quality Manager

^{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/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2023/6746

Report Issued Date: 22.04.2023

1. Name of the Industry

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

2. Sample Type

: Bore Well Water at Vysanakere Village: MSV Analytical Laboratories, Bellary.

3. Sample Collected By4. Sample Quantity

MSV Analytical Laboratories, Bel250 ml (Sterilized Bottle)

5. Sample description/condition

: Good/satisfactory

6. Date of sample Receipt7. Analysis Starting Date

: 17.04.2023

8. Analysis Completion Date

: 18.04.2023 : 22.04.2023

9. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	IS 10500:2018 Specification
Total Coliform Bacteria	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml
Escherichia Coli	IS: <mark>1</mark> 5185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml

INFERENCE IS – 10500 -2018 Standards
Report Status: - The above parameters are within The limits.

Verified by

Authorized Signature

Sr.Microbiologist Eswari

*End of the Report**

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

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

3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.

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



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

MSVAL/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6747

Name of the Industry

Report Issued Date: 22.04.2023 M/s. The Sandur Manganese & Iron Ores Ltd.

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

Name of the sample location

Sample Collected By 3.

4. Sample Quantity

Sample Description/condition 5.

Date of sample Collection 6. **Analysis Starting Date** 7.

Analysis completion Date 8.

Sample Tested as Received

(Metal & Ferro Alloys Plant)

Bore Well Water at Venkatagiri Village

MSV Analytical Laboratories, Bellary

2 Liters

Good/satisfactory

17.04.2023

18.04.2023 22.04.2023

					IS 10500-2012	
S.No	Parameters	Protocol	Unit	Result	Acceptable limit	Permissible limit
		Physical pa	rameters	Tage Wellage		
1	Color	IS: 3025(part-4)	#	Colorless	5	15
2	Odor	IS: 3025(part-5)		Agreeable	Agreeable	Agreeable
3	рН	IS: 3025(part-11)		6.89	6.5-8.5	No Relaxation
4	Turbidity	IS: 3025(part-10)	NTU	0.42	1	5
	in in	Chemical p	arameter	S		
5	Alkalinity	IS: 3025(part-23)	mg/l	160	200	600
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	812	500	2000
7	Total Hardness as CaCO ₃	IS: 3025(part-21)	mg/l	284.4	200	600
8	Calcium as Ca	IS: 3025(part-40)	mg/l	64.4	75	200
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	29.98	30	100
10	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	92.3	200	400
11	Chloride as Cl	IS: 3025(part-32)	mg/l	160.9	250	1000
12	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	3.14	45	No Relaxation
13	Iron as Fe	IS: 3025(part-34)	mg/l	BDL(0.004)	0.3	No Relaxation
14	Fluoride as F	IS: 3025(part-60)	mg/l	0.40	1.0	1.5
15	Sodium as Na	IS 3025(part 45):1993	mg/l	16.1		
16	Potassium as K	Is 3025(part 45):1993	mg/l	10.3		

INFERENCE

IS 10500 - 2012 Standards

BDL - Below Detectable Limit

Report Status: - The analyzed values for above measured parameters are within the Permissible

Analysed by

Authorised Signatory

Quality Manager

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

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/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6747

Report Issued Date: 22.04.2023

Name of the Industry 1.

M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Allovs Plant)

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

2. Name of the sample location Bore Well Water at Venkatagiri Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary

Sample Quantity

Good/satisfactory

Sample Description/condition **Date of sample Collection**

17.04.2023

Analysis Starting Date 7. 8. **Analysis completion Date** 18.04.2023

22.04.2023

9. Sar	nple'	Fested as	Received

		-77		IS 10500-2012		
S.No	Parameters Protocol		Unit	Result	Acceptable limit	Permissible limit
		Chemical para	meters	7		
17	Copper	IS: 3025(part-42)	mg/l	0.004	0.05	1.5
18	Manganese	IS: 3025(part-59)	mg/l	0.002	0.1	0.3
19	Mercury	IS:3025(part- 48)/mercury analyser	mg/l	0.002	0.001	No Relaxation
20	Cadmium	IS: 3025(part-41)	mg/l	0.001	0.01	No Relaxation
21	Lead	IS: 3025(part-47)	mg/l	0.002	0.05	No Relaxation
22	Chromium	IS: 3025(part-52)	mg/l	0.002	0.05	No Relaxation
23	Selenium	IS: 30 <mark>25(part-56)</mark>	mg/l	BDL	0.01	No Relaxation
24	Zinc	IS: 3025(part-49)	mg/l	BDL	5	15

INFERENCE	IS 10500 - 2012 Standards	
	BDL - Below Detectable Limit	
,	Report Status: - The analyzed values for above measured parameters are within the	
	Permissible limits.	j

Analysed by

Authorised Signatory

Quality Manager

^{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/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2023/6748

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

Report Issued Date: 22.04.2023

1. Name of the Industry

(Metal & Ferro Alloys Plant)

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

2. Sample Type

Bore Well Water at Venkatagiri Village

3. Sample Collected By

: MSV Analytical Laboratories, Bellary.

4. Sample Quantity

: 250 ml (Sterilized Bottle)

5. Sample description/condition

: Good/satisfactory

6. Date of sample Receipt
7. Analysis Starting Date

17.04.2023

7. Analysis Starting Date8. Analysis Completion Date

: 18.04.2023 : 22.04.2023

9. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	IS 10500:2018 Specification
Total Coliform Bacteria	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml
Escherichia Coli	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml

INFERENCE IS - 10500 -2018 Standards
Report Status: - The above parameters are within The limits.

End of the Repo

Verified by

Authorized Signature

Sr.Microbiologist Eswari

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

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

MSVAL/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6749

Name of the Industry

Report Issued Date: 22.04.2023 M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Name of the sample location

3. Sample Collected By

4. **Sample Quantity**

5. Sample Description/condition

6. Date of sample Collection

7. **Analysis Starting Date** 8. **Analysis completion Date**

Sample Tested as Received 9.

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

Bore Well Water at Hosapete

MSV Analytical Laboratories, Bellary

2 Liters

Good/satisfactory

17.04.2023 18.04.2023

22.04.2023

		- Table 1	985		IS 10500-2012	
S.No	Parameters	Protocol	Unit	Result	Acceptable limit	Permissible limit
		Physical pa	rameters			
1	Color	IS: 3025(part-4)	[Colorless	5	15
2	Odor	IS: 3025(part-5)		Agreeable	Agreeable	Agreeable
3	рН	IS: 3025(part-11)		7.32	6.5-8.5	No Relaxation
4	Turbidity	IS: 3025(part-10)	NTU	0.54	1	5
	1975	Chemical p	arameter	s		
5	Alkalinity	IS: 3025(part-23)	mg/l	150	200	600
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	648	500	2000
7	Total Hardness as CaCO ₃	IS: 3025(part-21)	mg/l	210.6	200	600
8	Calcium as Ca	IS: 3025(part-40)	mg/l	36.6	75	200
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	28.94	30	100
10	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	84.7	200	400
11	Chloride as Cl	IS: 3025(part-32)	mg/l	160.9	250	1000
12	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	2.62	45	No Relaxation
13	Iron as Fe	IS: 3025(part-34)	mg/l	BDL(0.004)	0.3	No Relaxation
14	Fluoride as F	IS: 3025(part-60)	mg/l	0.44	1.0	1.5
15	Sodium as Na	IS 3025(part 45):1993	mg/l	20.3		
16	Potassium as K	Is 3025(part 45):1993	mg/l	10.1		###.

INFERENCE	IS 10500 - 2012 Standards
	BDL – Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the Permissible
	limits.

Analysed by

Authorised Signatory

Quality Manager

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

MSVAL/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6749

Report Issued Date: 22.04.2023

1. Name of the Industry

 M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)
 Vyasanakere, Hanumanahalli Village,
 Hospet Taluk, Bellary District, Karnataka.

2. Name of the sample location

: Bore Well Water at Hosapete

3. Sample Collected By

: MSV Analytical Laboratories, Bellary

4. Sample Quantity

: 2 Liters

5. Sample Description/condition6. Date of sample Collection

: Good/satisfactory

7. Analysis Starting Date

: 17.04.2023 : 18.04.2023

8. Analysis completion Date

: 22.04.2023

9. Sample Tested as Received

			74700		IS 10500-2012	
S.No	Parameters	Protocol	tocol Unit		Acceptable limit	Permissible limit
		Chemical para	meters	(1 0	•	
17	Copper	IS: 3025(part-42)	mg/l	0.004	0.05	1.5
18	Manganese	IS: 3025(part-59)	mg/l	0.002	0.1	0.3
19	Mercury	IS:3025(part- 48)/mercury analyser	mg/l	0.003	0.001	No Relaxation
20	Cadmium	IS: 3025(part-41)	mg/l	0.002	0.01	No Relaxation
21	Lead	IS: 3025(part-47)	mg/l	0.003	0.05	No Relaxation
22	Chromium	IS: 3025(part-52)	mg/l	0.004	0.05	No Relaxation
23	Selenium	IS: 3025(part-56)	mg/l	BDL	0.01	No Relaxation
24	Zinc	IS: 3025(part-49)	mg/l	BDL	5	15

INFERENCE	IS 10500 - 2012 Standards
	BDL - Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the
	Permissible limits.

Analysed by

Authorised Signatory

Renukamma Quality Manager

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

MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2023/6750

Report Issued Date: 22.04.2023

1. Name of the Industry

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

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

2. Sample Type

3. Sample Collected By

4. Sample Quantity

5. Sample description/condition

6. Date of sample Receipt

7. Analysis Starting Date

8. Analysis Completion Date 9. Sample tested as Received

Bore Well Water at Hosapete

MSV Analytical Laboratories, Bellary.

250 ml (Sterilized Bottle)

Good/satisfactory

17.04.2023

18.04.2023

22.04.2023

Parameters	Protocol	Unit	Result	IS 10500:2018 Specification
Total Coliform Bacteria	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml
Escherichia Coli	IS: <mark>15</mark> 185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml

INFERENCE IS - 10500 -2018 Standards Report Status: - The above parameters are within The limits.

Authorized Signature

Sr.Microbiologist Eswari

End of the Report**

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

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

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MSVAL/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6751

1. Name of the Industry

Report Issued Date: 22.04.2023
M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)

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

: Bore Well Water at Ramgad Reservoir

: MSV Analytical Laboratories, Bellary

: 2 Liters

: Good/satisfactory

: 17.04.2023 : 18.04.2023

: 22.04.2023

2. Name of the sample location

3. Sample Collected By

4. Sample Quantity

8.

5. Sample Description/condition

Analysis completion Date

6. Date of sample Collection

7. Analysis Starting Date

9. Sample Tested as Received

					IS 10500-2012	
S.No	Parameters	Protocol	Unit	Result	Acceptable limit	Permissible limit
		Physical pa	arameters	3		
1	Color	IS: 3025(part-4)	"	Colorless	5	15
2	Odor	IS: 3025(part-5)		Agreeable	Agreeable	Agreeable
3	рН	IS: 3025(part-11)		7.80	6.5-8.5	No Relaxation
4	Turbidity	IS: 3025(part-10)	NTU	0.58	1	5
	in the second	Chemical p	arameter	S	•	
5	Alkalinity	IS: 3025(part-23)	mg/l	140	200	600
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	1024	500	2000
7	Total Hardness as CaCO ₃	IS: 3025(part-21)	mg/l	328.7	200	600
8	Calcium as Ca	IS: 3025(part-40)	mg/l	82.8	75	200
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	29.57	30	100
10	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	64.4	200	400
11	Chloride as Cl	IS: 3025(part-32)	mg/l	130.9	250	1000
12	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	2.12	45	No Relaxation
13	Iron as Fe	IS: 3025(part-34)	mg/l	BDL(0.004)	0.3	No Relaxation
14	Fluoride as F	IS: 3025(part-60)	mg/l	0.40	1.0	1.5
15	Sodium as Na	IS 3025(part 45):1993	mg/l	12.2		
16	Potassium as K	Is 3025(part 45):1993	mg/l	6.2		

INFERENCE	IS 10500 - 2012 Standards
	BDL - Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the Permissible
	limits.

Analysed by

Authorised Signatory

Renukamma Quality Manager

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MSVAL/W/F/13/03

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2023/6751

*-

Report Issued Date: 22.04.2023

1. Name of the Industry

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

Hospet Taluk, Bellary District, Karnataka.

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

2. Name of the sample location

Sample Description/condition

Bore Well Water at Ramgad Reservoir

3. Sample Collected By

: MSV Analytical Laboratories, Bellary

4. Sample Quantity

5.

2 LitersGood/satisfactory

6. Date of sample Collection

: 17.04.2023

7. Analysis Starting Date

: 18.04.2023

8. Analysis completion Date

: 22.04.2023

9. Sample Tested as Received

			Let'		IS 10500-2012		
S.No	Parameters Protocol		Unit	Result	Acceptable limit	Permissible limit	
Chemical parameters							
17	Copper	IS: 3025(part-42)	mg/l	0.004	0.05	1.5	
18	Manganese	IS: 3025(part-59)	mg/l	0.002	0.1	0.3	
19	Mercury	IS:3025(part- 48)/mercury analyser	mg/l	0.003	0.001	No Relaxation	
20	Cadmium	IS: 3025(part-41)	mg/l	0.003	0.01	No Relaxation	
21	Lead	IS: 3025(part-47)	mg/l	0.001	0.05	No Relaxation	
22	Chromium	IS: 3025(part-52)	mg/l	0.005	0.05	No Relaxation	
23	Selenium	IS: 3025(part-56)	mg/l	BDL	0.01	No Relaxation	
24	Zinc	IS: 3025(part-49)	mg/l	BDL	5	15	

INFERENCE	IS 10500 - 2012 Standards
	BDL - Below Detectable Limit
	Report Status: - The analyzed values for above measured parameters are within the
	Permissible limits.

Analysed by

Authorised Signatory

Renukamma Quality Manager

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

-: END OF REPOR'

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MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2023/6752

Report Issued Date: 22.04.2023

1. Name of the Industry

M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

2. Sample Type

Hospet Taluk, Bellary District, Karnataka.

3. Sample Collected By

Bore Well Water at Ramgad ReservoirMSV Analytical Laboratories, Bellary.

4. Sample Quantity

: 250 ml (Sterilized Bottle)

5. Sample Quantity

: Good/satisfactory

6. Date of sample Receipt7. Analysis Starting Date

: 17.04.2023

8. Analysis Completion Date

: 18.04.2023 : 22.04.2023

9. Sample tested as Received

. 22.04.2023

RESULTS

Parameters	Protocol	Unit	Result	IS 10500:2018 Specification
Total Coliform Bacteria	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml
Escherichia Coli	IS:15185:2016	Cfu/ 100ml	Absent	Shall not be detectable in 100 ml

INFERENCE IS - 10500 -2018 Standards

Report Status: - The above parameters are within The limits.

Verified by

Authorized Signature

Sr.Microbiologist

Eswari

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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