ENVIRONMENTAL MONITORING REPORT

(February- 2023)

M/S. THE SANDUR MANGANESE & IRON ORES LTD.

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

Monitoring Agency

Prepared By
M S V Analytical Laboratories

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, Bellari - 583103.

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Certified by: ISO14001: 2015, ISO 22000:2018, ISO 45001:2018, ISO 9001:2015

&

Accredited By NABL ISO / IEC 17025:2005 Certificate No- TC 7207

&

Recognized By MoEF & CC under Environment Protection act 1986

Sr. No.	Description					
1.0	Ambient Air Quality Monitoring Reports For the Month of February 2023					
1.1	Ambient Air Quality Monitoring 1st Week 1 st Round at Smiore Colony	1-2				
	Ambient Air Quality Monitoring 1st Week 1 st Round at Kallahalli Village	3-4				
	Ambient Air Quality Monitoring 1st Week 1 st Round at Vysanakere Village	5-6				
	Ambient Air Quality Monitoring 1st Week 1 St Round at Gunda Village	7-8				
1.2	Ambient Air Quality Monitoring 1st Week 2 nd Round at Smiore Colony	9-10				
	Ambient Air Quality Monitoring 1st Week 2 nd Round at Kallahalli Village	11-12				
	Ambient Air Quality Monitoring 1st Week 2nd Round at Vysanakere Village	13-14				
	Ambient Air Quality Monitoring 1st Week 2 nd Round at Gunda Village	15-16				
1.3	Ambient Air Quality Monitoring 2nd Week 1 st Round at Smiore Colony	17-18				
	Ambient Air Quality Monitoring 2nd Week 1st Round at Kallahalli Village	19-20				
	Ambient Air Quality Monitoring 2nd Week 1st Round at Vysanakere Village	21-22				
	Ambient Air Quality Monitoring 2nd Week 1 St Round at Gunda Village	23-24				
1.4	Ambient Air Quality Monitoring 2nd Week 2nd Round at Smiore Colony	25-26				
	Ambient Air Quality Monitoring 2nd Week 2nd Round at Kallahalli Village	27-28				
	Ambient Air Quality Monitoring 2nd Week 2nd Round at Vysanakere Village	29-30				
	Ambient Air Quality Monitoring 2nd Week 2nd Round at Gunda Village	31-32				
1.5	Ambient Air Quality Monitoring 3 rd Week 1 St Round at Smiore Colony	33-34				
	Ambient Air Quality Monitoring 3 rd Week 1 St Round at Kallahalli Village	35-36				
,	Ambient Air Quality Monitoring 3 rd Week 1 St Round at Vysanakere Village	37-38				
	Ambient Air Quality Monitoring 3 rd Week 1 St Round at Gunda Village	39-40				
1.6	Ambient Air Quality Monitoring 3 rd Week 2 nd Round at Smiore Colony	41-42				
	Ambient Air Quality Monitoring 3 rd Week 2 nd Round at Kallahalli Village	43-44				
	Ambient Air Quality Monitoring 3 rd Week 2 nd Round at Vysanakere Village	45-46				
	Ambient Air Quality Monitoring 3 rd Week 2 nd Round at Gunda Village	47-48				
1.7	Ambient Air Quality Monitoring 4th Week 1st Round at Smiore Colony	49-50				
	Ambient Air Quality Monitoring 4th Week 1st Round at Kallahalli Village	51-52				
	Ambient Air Quality Monitoring 4th Week 1st Round at Vysanakere Village	53-54				
	Ambient Air Quality Monitoring 4th Week 1st Round at Gunda Village	55-56				
1.8	Ambient Air Quality Monitoring 4th Week 2nd Round at Smiore Colony	57-58				
130	Ambient Air Quality Monitoring 4th Week 2nd Round at Kallahalli Village	59-60				
	Ambient Air Quality Monitoring 4th Week 2nd Round at Vysanakere Village	61-62				
	Ambient Air Quality Monitoring 4th Week 2nd Round at Gunda Village	63-64				

2.0		
2.0	Stack Monitoring Reports For the Month of February 2023	
2.1	Stack Monitoring Report of Coke Screening & Store	65
2.2	Stack Monitoring Report of Coke Cutter	66
2.3	Stack Monitoring Report of Coal Crushing Area	67
2.4	Stack Monitoring Report of DG Set 750 KVA	68
2.5	Stack Monitoring Report of Ferro Alloy ARC Furnace-5	69
2.6	Stack Monitoring Report of Ferro Alloy ARC Furnace-3	70
2.7	Stack Monitoring Report of Coke Oven Battery-Pasess Through WHRB-1	71
2.8	Stack Monitoring Report of Coke Oven Battery-Pasess Through WHRB-2	72
4.0	Soil Quality Monitoring Reports For the Month of	2
4.0	February 2023	
4.1	Inside the Plant	73
4.2	Outside the plant	74
4.3	Smiore Colony	75
4.4	Kallahalli Village	76
4.5	Vysanakere Village	77
4.6	Gunda Village	78



Recognition by MoEF under Environment (Protection) Act, 1986 (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) : 08392-255169,

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MSVAL/A/F/16/03

Issue Date: 04.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/598

Name of the Project

Name of the location Sample Collected By 3.

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

Date of Sample Receipt

Sample Code 7.

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

Sample Tested as Received 10.

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

(Metal & Ferro Alloys Plant)

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

Smiore Colony

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

01.02.2023 02.02.2023

0611

02.02.2023 04.02.2023

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)	57.7	56.1	54.2	μg / m³	56.0	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	28.4	26.2	24.3	μg / m³	26.3	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	11.03	9.93	9.09	μg / m³	10.0	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.47	16.86	14.96	μg / m³	16.4	80
5	Ozone as O ₃	IS 5182(part-9)	12.4	13.8	10.4	μg / m³	12.2	100
6	Lead	IS-5182(Part22)	0.034	0.030	0.026	μg / m³	0.0	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.42	0.38	0.30	mg/m³	0.4	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	1.34	1.20	μg / m³	1.3	20

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

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

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

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

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



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MSVAL/A/F/16/03

Issue Date: 04.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/598

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

3. Sample Collected By

Particulars of the sample

Date of Sampling 5 **Date of Sample Receipt**

Sample Code 7.

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

Sample Tested as Received 10.

Smiore Colony MSV Analytical Laboratories, Bellary,

Sample collected with RDS APM460 and FDS GTI-131

01.02.2023 02.02.2023

0611

02.02.2023 04.02.2023

S.No	Parameter	Protocols	Shift wise results Protocols			Units	Result in	Tolerance	
	1		1	2	3	27	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,

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/599

Issue Date: 04.02.2023

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

Sample collected with RDS APM460 and FDS GTI-131

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

01.02.2023 02.02.2023

Sample Code 7.

0612

Analysis Starting Date 8.

02.02.2023 04.02.2023

Analysis Completion Date

Sample Tested as Received 10.

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result	Tolerance limits
		194	1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	55.1	54.6	52.5	μg / m³	53.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.9	17.2	16.3	μg / m ³	17.4	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.5	7.0	6.7	μg / m³	7.2	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.63	13.5	11.07	$\mu g / m^3$	12.8	80
5	Ozone as O ₃	IS 5182(part-9)	7.9	6.5	5.8	μg / m³	6.6	100
6	Lead	IS-5182(Part22)	0.030	0.028	0.027	μg / m³	0.028	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.32	0.26	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	1.36	1.34	1.30	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

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

Issue Date: 04.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/599

Name of the Project

2. Name of the location Sample Collected By 3. Particulars of the sample

Date of Sampling

Date of Sample Receipt 6. Sample Code

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

Sample Tested as Received

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

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

Kallahalli Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

01.02.2023

02.02.2023

0612

02.02.2023 04.02.2023

S.No	Parameter	Protocols	Sh	ift wise re	esults	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

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

Analysed by

Authorized Signatory

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/2023/600

Issue Date: 04.02.2023

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

3. Sample Collected By

4. Particulars of the sample

5. Date of Sampling

6. Date of Sample Receipt7. Sample Code

8. Analysis Starting Date

9. Analysis Completion Date

: Vysanakere Village

: MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

01.02.2023

: 02.02.2023

: 0613

: 02.02.2023

10. Sample Tested as Received

: 04.02.2023

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance limits
			1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.3	52.7	50.9	μg / m³	52.6	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.7	17.5	16.8	μg / m³	17.7	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	11.2	10.8	9.25	μg / m³	10.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.7	14.2	13.8	μg / m³	14.9	80
5	Ozone as O ₃	IS 5182(part-9)	9.5	8.1	7.5	μg / m³	8.4	100
6	Lead	IS-5182(Part22)	0.022	0.019	0.017	μg / m³	0.020	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.27	0.25	0.19	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	1.35	1.26	1.21	µg / m³	1.29	20

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory

B. Chinna Lingana Gouda Chief executive of the laboratory

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

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C.N.C Ward No 18 & C.1.C W.No.16 1.5 No. 695/A/32/B1, Block No 19 (1 & 2 Floor)

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/600

Issue Date: 04.02.2023

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

01.02.2023

6. Date of Sample Receipt

02.02.2023 0613

Sample Code
 Analysis Starting Date

: 02.02.2023

9. Analysis Completion Date

: 04.02.2023

10.	Sample	Tested	as	Received
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S.No	Parameter	Protocols	Protocols Shift wise results			Units	Result in	Tolerance limits
Sino	4		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,

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/601

Issue Date: 04.02.2023

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

Gunda 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 Date of Sample Receipt 6.

01.02.2023 02.02.2023

7. Sample Code

0614

Analysis Starting Date 8.

02.02.2023

Analysis Completion Date 9.

04.02.2023

Sample Tested as Received 10.

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance
5		1 2 3		3		in Avg.	limits	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	56.3	55.7	53.1	μg / m³	55.0	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)	9.07	8.4	7.23	μg / m³	8.2	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12.5	11.7	9.36	μg / m³	11.2	80
5	Ozone as O ₃	IS 5182(part-9)	8.8	9.2	7.2	μg / m³	8.4	100
6	Lead	IS-5182(Part22)	<0.01	<0.01	<0.01	μg / m³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.29	0.32	0.26	mg/m³	0.29	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

- We. B. Chinna Lingana Gouda Chief executive of the laboratory

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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) : 08392-255169,

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/601 Name of the Project

1.

Issue Date: 04.02.2023 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

Date of Sampling 5.

01.02.2023 02.02.2023

Date of Sample Receipt 6. Sample Code 7.

0614

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

02.02.2023 04.02.2023

Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in	Tolerance	
	90	· Erreit	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	

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

Analysed by

(Soft)

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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 07.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/758

Name of the Project

Name of the location Sample Collected By 3.

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

Date of Sample Receipt 7. Sample Code

Analysis Starting Date 8.

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

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

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

Smiore Colony

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

03.02.2023 04.02.2023 0816

04.02.2023 07.02.2023

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance
		Silver Services	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	57.2	56.4	55.4	μg / m³	57.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	19.6	18.7	17.2.	μg / m³	17.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.85	8.2	7.23	μg / m³	8.6	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.6	15.8	14.8	μg / m³	14.7	80
5	Ozone as O ₃	IS 5182(part-9)	9.2	8.5	7.8	μg / m³	8.3	100
6	Lead	IS-5182(Part22)	0.028	0.025	0.022	μg / m³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.35	0.34	0.33	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	1.18	1.17	1.16	μg / m³	1.17	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

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

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 07.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/758 Name of the Project

(Metal & Ferro Allovs Plant)

Vyasanakere, Hanumanahalli Village,

Name of the location 2

Sample Collected By 3.

Particulars of the sample 4.

Date of Sampling

Date of Sample Receipt 6.

Sample Code 7.

1.

Analysis Starting Date

Analysis Completion Date 9.

10. Sample Tested as Received M/s. The Sandur Manganese & Iron Ores Ltd.

Hospet Taluk, Bellary District, Karnataka.

Smiore Colony

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

03.02.2023

04.02.2023

0816

04.02.2023

07.02.2023

S.No	Parameter	Shift wise results Protocols				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 NAAOS 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

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) : 08392-255169,

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/759

Issue Date: 07.02.2023

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

3. Sample Collected By

: Kallahalli Village

4. Particulars of the sample

: MSV Analytical Laboratories, Bellary.

5. Date of Sampling

Sample collected with RDS APM460 and FDS GTI-131 03.02.2023

6. Date of Sample Receipt7. Sample Code

: 04.02.2023

8. Analysis Starting Date

: 0817 : 04.02.2023

9. Analysis Completion Date

07.02.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance limits
		and the second	1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	57.21	56.5	55.2	μg / m³	56.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.2	17.4	16.8	μg / m³	17.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.5	8.1	7.2	μg / m³	8.3	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.2	14.3	13.2	μg / m³	14.2	80
5	Ozone as O ₃	IS 5182(part-9)	10.7	9.5	8.5	μg / m³	9.6	100
6	Lead	IS-5182(Part22)	0.021	0.02	0.018	μg / m³	0.020	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.3	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	1.20	1.19	1.18	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

B. Channa Lingana Gouda Chief executive of the laboratory

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

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

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 07.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/759

1. Name of the Project

Name of the location
 Sample Collected By
 Particulars of the sample
 Date of Sampling

6. Date of Sample Receipt
7. Sample Code

8. Analysis Starting Date
9. Analysis Completion Date
10. Sample Tested as Received

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

: Kallahalli Village

: MSV Analytical Laboratories, Bellary.

: Sample collected with RDS APM460 and FDS GTI-131

03.02.2023 04.02.2023

: 0817 : 04.02.2023

: 07.02.2023

S.No	Parameter	Shift wise results				Units	Result in	Tolerance
		1.0000	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

Joen John Contraction of the Con

C

B.Chinga 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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E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/760

Issue Date: 07.02.2023

Name of the Project 1.

(Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village,

Name of the location

Sample Collected By

4. Particulars of the sample

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

7. Sample Code

3.

8. **Analysis Starting Date**

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

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

Hospet Taluk, Bellary District, Karnataka.

Vysanakere Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

03.02.2023 04.02.2023

0818

04.02.2023

07.02.2023

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result	Tolerance limits
			1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.1	51.4	50.6	μg / m³	51.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	14.2	13.6	12.2	μg / m³	13.3	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.2	6.1	5.3	μg / m³	6.20	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	13.8	12.4	11.3	μg / m³	12.50	80
5	Ozone as O ₃	IS 5182(part-9)	0.25	0.24	0.23	μg / m³	0.24	100
6	Lead	IS-5182(Part22)	0.026	0.024	0.022	μg / m³	0.024	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.18	0.17	0.16	mg/m³	0.17	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	1.22	1.21	1.20	μg / m³	1.21	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

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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E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/A/F/16/03

Issue Date: 07.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/760

Name of the Project

2.

Name of the location 3. Sample Collected By Particulars of the sample 4. **Date of Sampling**

Date of Sample Receipt Sample Code 7.

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

03.02.2023 04.02.2023 0818

04.02.2023 07.02.2023

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
			1	2	3	-01		
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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/761

Name of the Project

Name of the location 3. Sample Collected By 4. Particulars of the sample

Date of Sampling Date of Sample Receipt 6.

2.

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

10. Sample Tested as Received Issue Date: 07.02.2023

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

Gunda Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

03.02.2023 04.02.2023 0819

04.02.2023 07.02.2023

S.No	Parameter	Protocols	Shif	t wise resi	ılts	Units	Result	Tolerance
Direc			1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	56.2	55.3	53.5	μg / m³	55.0	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	14.5	13.5	12.7	μg / m³	13.6	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.9	6.7	5.4	μg / m³	6.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	13.6	12.1	11.5	μg / m³	12.4	80
5	Ozone as O ₃	IS 5182(part-9)	6.2	5.4	4.2	μg / m³	5.3	100
6	Lead	IS-5182(Part22)	<0.01	<0.01	<0.01	μg / m³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.26	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	<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

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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 07.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/761

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.

Gunda Village

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

Particulars of the sample **Date of Sampling**

03.02.2023 04.02.2023

Date of Sample Receipt

Sample Code

0819

Analysis Starting Date

04.02.2023 07.02.2023

9. **Analysis Completion Date**

10. Sample Tested as Received

S.No Parameter		Shift wise results		Units	Result in	Tolerance		
10-14-50 AT 10-16-16	3/4		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

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

Analysed by

B.Chinna Lingana Gouda Chief executive of the laboratory

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

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

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

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



Recognition by MoEF under Environment (Protection) Act, 1986 (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) : 08392-255169,

E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/A/F/16/03

Issue Date: 12.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1364

Name of the Project

2.

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.

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

08.02.2023 **Date of Sampling** 5. **Date of Sample Receipt** 10.02.2023 6.

Sample Code 1493 7. 8. **Analysis Starting Date** 10.02.2023 **Analysis Completion Date** 12.02.2023 9.

Sample Tested as Received 10.

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result	Tolerance limits
	2/4		1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.1	53.2	50.5	μg / m³	51.9	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	21.8	22.1	20.4	μg / m³	21.4	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.5	11.1	8.9	μg / m³	9.8	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	18.15	19.7	17.8	μg / m³	18.6	80
5	Ozone as O ₃	IS 5182(part-9)	9.2	10.1	8.9	μg / m³	9.4	100
6	Lead	IS-5182(Part22)	0.03	0.029	0.028	μg / m³	0.029	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.41	0.43	0.4	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	1.10	1.9	1.8	μg / m³	1.60	20

As per NAAQS Standards INFERENCE

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

Analysed by

B.Chinna Lingana Gouda Chief executive of the laboratory

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

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

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

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



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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1364

Issue Date: 12.02.2023

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 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling 5.

08.02.2023 10.02.2023

Date of Sample Receipt 6. Sample Code 7

1493

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

10.02.2023

10. Sample Tested as Received 12.02.2023

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits
	10		1	2	3		Avg.	IIIIIII
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

(00)

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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1365

Name of the Project

Issue Date: 12.02.2023 M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

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

2. Name of the location

Sample Collected By 3.

Kallahalli Village

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling

08.02.2023 10.02.2023

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

1494

Analysis Starting Date 8.

10.02.2023

Analysis Completion Date 9

12.02.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result	Tolerance
	- X		1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	57.4	58.7	56.2	μg / m³	57.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.2	21.8	19.4	μg / m³	20.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.1	10.7	8.9	μg / m³	9.6	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	13.3	14.8	12.6	μg / m³	13.6	80
5	Ozone as O ₃	IS 5182(part-9)	8.6	9.2	7.7	μg / m³	8.5	100
6	Lead	IS-5182(Part22)	0.032	0.033	0.031	μg / m³	0.032	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.29	0.30	0.28	mg/m³	0.29	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	1.11	1.10	1.9	μg / m³	1.37	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

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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E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/A/F/16/03

Issue Date: 12.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1365

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

Sample Collected By 3.

Particulars of the sample 4.

Date of Sampling

Date of Sample Receipt 7 Sample Code

Analysis Starting Date

Analysis Completion Date 9 10. Sample Tested as Received

Kallahalli Village MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

08.02.2023

10.02.2023

1494

10.02.2023

12.02.2023

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
		• 45.00	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

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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1366

Issue Date: 12.02.2023

1. Name of the Project (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village,

2. Name of the location

Sample Collected By 3.

Particulars of the sample 4.

Date of Sampling 5.

Date of Sample Receipt 6.

Sample Code 7.

Analysis Starting Date 8.

Analysis Completion Date 9

Sample Tested as Received

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

Hospet Taluk, Bellary District, Karnataka.

Vysanakere Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

08.02.2023 10.02.2023

1495

10.02.2023

12.02.2023

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result in Avg.	Tolerance limits
5 0	4.4	O.	1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	51.9	52.5	50.2	μg / m³	51.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	16.5	17.1	15.8	μg / m³	16.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.5	8.8	6.9	μg / m³	7.73	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12.1	13.5	11.3	μg / m³	12.3	80
5	Ozone as O ₃	IS 5182(part-9)	6.7	7.8	5.4	μg / m³	6.63	100
6	Lead	IS-5182(Part22)	0.090	0.088	0.086	μg / m³	0.09	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	1.17	1.19	1.16	μg / m³	1.17	20

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory

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

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 12.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1366

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

Sample Collected By 3.

Particulars of the sample

Date of Sampling

Date of Sample Receipt

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

Sample Code

Sample Tested as Received 10.

Vysanakere Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

08.02.2023 10.02.2023

1495

10.02.2023

12.02.2023

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 / 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

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.

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1367

Issue Date: 12.02.2023

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.

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

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

08.02.2023 10.02.2023

Sample Code 7.

1496

8. **Analysis Starting Date** 10.02.2023

Analysis Completion Date 9. Sample Tested as Received 12.02.2023

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result	Tolerance limits
			1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	58.2	57.1	56.4	μg / m³	57.2	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.2	17.8	16.4	μg / m³	17.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.5	7.5	6.6	μg / m³	7.5	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	11.2	10.7	9.9	μg / m³	10.6	80
5	Ozone as O ₃	IS 5182(part-9)	9.1	8.3	7.9	μg / m³	8.4	100
6	Lead	IS-5182(Part22)	0.018	0.017	0.016	μg / m³	0.017	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	1.24	1.23	1.22	μg / m³	1.23	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

Analysed by

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

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

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.



Recognition by MoEF under Environment (Protection) Act, 1986 (Certified by ISO-14001-2015,ISO 22000-2018, ISO 45001-2018,ISO 9001-2015)

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 12.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1367

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

3. Sample Collected By

1

: MSV Analytical Laboratories, Bellary.

4. Particulars of the sample

: Sample collected with RDS APM460 and FDS GTI-131 08.02.2023

Gunda Village

5. Date of Sampling

: 10.02.2023

6. Date of Sample Receipt7. Sample Code

: 1496

8. Analysis Starting Date

: 10.02.2023 : 12.02.2023

9. Analysis Completion Date

10. Sample Tested as Received

S.No	Parameter	Protocols	Shi	ift wise re	sults	Units	Result in	Tolerance limits	
		Y Yests,	1	2	3	·	Avg.	mints	
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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E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/A/F/16/03

Issue Date: 14.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1602

Name of the Project

Name of the location Sample Collected By 3.

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

Date of Sample Receipt

7. Sample Code

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

10. Sample Tested as Received M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

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

Smiore Colony

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

11.02.2023

12.02.2023 1756

12.02.2023

14.02.2023

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result	Tolerance limits
		With the second second	1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	58.6	59.8	57.5	μg / m³	58.6	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	23.8	24.3	22.9	μg / m³	23.7	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.8	9.85	7.45	μg / m³	8.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	18.3	19.25	17.1	μg / m³	18.2	80
5	Ozone as O ₃	IS 5182(part-9)	9.2	8.1	7.9	μg / m³	8.4	100
6	Lead	IS-5182(Part22)	0.027	0.025	0.022	μg / m³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.39	0.41	0.38	mg/m³	0.39	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	1.6	1.5	1.4	μg / m³	1.50	20

INFERENCE

As per NAAQS Standards

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

B.Chinga 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.



Recognition by MoEF under Environment (Protection) Act, 1986 (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): 08392-255169,

E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1602

Issue Date: 14.02.2023

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.

Particulars of the sample

Date of Sampling

Date of Sample Receipt 7.

10.

Analysis Starting Date 8. 9.

Sample Code **Analysis Completion Date**

Sample Tested as Received

Smiore Colony

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

11.02.2023 12.02.2023 1756

12.02.2023 14.02.2023

S.No	Parameter	1	Protocols	Sh	ift wise re	esults	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	940	CPCB Procedure	<0.01	<0.01	<0.01	μg / m³	<0.01	6

	100 M
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

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

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

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

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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Recognition by MoEF under Environment (Protection) Act, 1986
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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): 08392-255169,

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1603

Issue Date: 14.02.2023

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

11.02.2023 : 12.02.2023

7. Sample Code

1757

8. Analysis Starting Date

: 12.02.2023

9. Analysis Completion Date

14.02.2023

10. Sample Tested as Received

: 14.02.2023

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance limits
3.110	1 arameter	7700000	1	2	3	Omes	in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	55.4	56.8	54.3	μg / m³	55.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.1	21.1	19.7	μg / m³	20.3	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.5	9.8	7.8	μg / m³	8.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12.3	13.6	11.7	μg / m³	12.5	80
5	Ozone as O ₃	IS 5182(part-9)	8.2	7.5	6.8	μg / m³	7.50	100
6	Lead	IS-5182(Part22)	0.031	0.03	0.029	μg / m³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.27	0.28	0.26	mg/m³	0.27	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	1.82	1.8	1.78	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



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.



Recognition by MoEF under Environment (Protection) Act, 1986
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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (0) : 08392-255169,

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 14.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1603

1. Name of the Project

t

: 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

3. Sample Collected By

Particulars of the sample
 Date of Sampling

6. Date of Sample Receipt7. Sample Code

Analysis Starting Date
 Analysis Completion Date
 Sample Tested as Received

: Kallahalli Village

: MSV Analytical Laboratories, Bellary.

: Sample collected with RDS APM460 and FDS GTI-131

11.02.2023

: 12.02.2023 : 1757 : 12.02.2023

: 12.02.2023

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	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

Cofo

BALLARD END OF REPORT:

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.

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1604

Issue Date: 14.02.2023

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.

4. Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

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

11.02.2023 12.02.2023

7. Sample Code 1758

Analysis Starting Date

12.02.2023

Analysis Completion Date 9.

14.02.2023

Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result in Avg.	Tolerance limits
		O	1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	51.2	52.6	49.5	μg / m³	51.1	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	16.8	17.5	15.1	μg / m³	16.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.2	7.5	6.4	μg / m³	7.3	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12.21	13.25	11.15	μg / m³	12.2	80
5	Ozone as O ₃	IS 5182(part-9)	3.7	3.4	3.1	μg / m³	3.40	100
6	Lead	IS-5182(Part22)	0.084	0.083	0.082	μg / m³	0.083	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.24	0.22	0.20	mg/m³	0.22	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	1.14	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.16	1.14	1.12	μg / m³	1.16	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,

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

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



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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 14 02,2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Vysanakere Village

Test Report No: MSVAL/2023/1604

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

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

5. **Date of Sampling**

11.02.2023 12.02.2023

Date of Sample Receipt 6. Sample Code 7.

1758

8. **Analysis Starting Date**

12.02.2023 14.02.2023

9. **Analysis Completion Date**

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance limits
		V	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

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

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1605

Issue Date: 14.02.2023

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.

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 5.

11.02.2023

Date of Sample Receipt 6.

12.02.2023

Sample Code 7.

1759

8. **Analysis Starting Date Analysis Completion Date** 12.02.2023 14.02.2023

Sample Tested as Received

S.No	Shift wise results		ults	Units	Result	Tolerance		
onto	T di diffetet	7.7.00000	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	53.8	52.1	51.1	μg / m³	52.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	15.4	14.3	13.1	μg / m³	14.2	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	6.65	6.2	4.25	μg / m³	5.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	10	8.8	8.15	μg / m³	8.9	80
5	Ozone as O ₃	IS 5182(part-9)	7.1	6.9	5.1	μg / m³	6.3	100
6	Lead	IS-5182(Part22)	0.013	0.012	0.011	μg / m³	0.012	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.20	0.21	0.22	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	1.20	1.19	1.18	μg / m³	1.19	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

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

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

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

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



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

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1605

Issue Date: 14.02.2023

1. Name of the Project

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

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

11.02.2023 12.02.2023

6. Date of Sample Receipt7. Sample Code

: 1759

8. Analysis Starting Date

: 12.02.2023 : 14.02.2023

9. Analysis Completion Date10. Sample Tested as Received

: 14.02.20

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
		10000	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 Report Status: The analyzed values for above measured parameter are within the limits	INFERENCE	As per NAAQS Standards Report Status:- The analyzed values for above measured parameter are within the limits
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Analysed by

(Caren

Authorized Signatory

B.Chima 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.

1



Recognition by MoEF under Environment (Protection) Act, 1986 (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) : 08392-255169,

E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/A/F/16/03

Issue Date: 17.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1793

Name of the Project

2. Name of the location 3. Sample Collected By

Particulars of the sample **Date of Sampling**

Date of Sample Receipt Sample Code

Analysis Starting Date 8. **Analysis Completion Date** 10. Sample Tested as Received

Hospet Taluk, Bellary District, Karnataka. **Smiore Colony**

MSV Analytical Laboratories, Bellary.

(Metal & Ferro Alloys Plant) . Vyasanakere, Hanumanahalli Village,

Sample collected with RDS APM460 and FDS GTI-131 14.02.2023

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

15.02.2023 1972 15.02.2023

17.02.2023

S.No	Parameter	Protocols	Shi	ft wise resu	ılts	Units	Result	Tolerance
	2/4	200000	1	2	3	Oints	in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	59.2	58.5	57.2	μg / m³	58.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	21.3	22.2	20.2	μg / m³	21.2	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	17.0	18.0	16.9	μg / m³	17.3	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	19.6	20.8	18.7	μg / m³	19.7	80
5	Ozone as O ₃	IS 5182(part-9)	8.4	9.3	7.8	μg / m³	8.50	100
6	Lead	IS-5182(Part22)	0.032	0.036	0.029	μg / m³	0.032	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	1.26	1.28 µg	1.24	μg / m³	1.26	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.82	1.80	1.78	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 4.2 **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.



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

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 17.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1793

1. Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

2. Name of the location

Sample Collected By 3.

4. Particulars of the sample

Date of Sampling Date of Sample Receipt 6.

Sample Code

Analysis Starting Date Я

Analysis Completion Date Sample Tested as Received 10.

Hospet Taluk, Bellary District, Karnataka.

Smiore Colony

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

14.02.2023 15.02.2023

1972

15.02.2023 17.02.2023

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
		1000	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 par	ameter are within the limits
--	------------------------------

Analysed by

Chief executive of the laboratory

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

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

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

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1794

Name of the Project

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

Issue Date: 17.02.2023

(Metal & Ferro Alloys Plant)

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

Name of the location 2.

Sample Collected By

Kallahalli Village

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

Particulars of the sample **Date of Sampling**

14.02.2023

Date of Sample Receipt 6.

15.02.2023

Sample Code

1973

8. **Analysis Starting Date** 15.02.2023 17.02.2023

9. **Analysis Completion Date**

10. Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result in Avg.	Tolerance limits
Siito	The state of the s		1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.2	55.2	53.8	μg / m³	54.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.8	19.3	17.2	μg / m³	18.4	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	11.9	12.9	10.9	μg / m³	11.9	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.20	17.80	15.70	μg / m³	16.5	80
5	Ozone as O ₃	IS 5182(part-9)	8.10	9.40	7.30	μg / m³	8.2	100
6	Lead	IS-5182(Part22)	1.16	1.18	1.15	μg / m³	1.16	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.35	0.32	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	1.41	1.36	1.28	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

Authorized Signatory B. Chihna 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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 17.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1794

Name of the Project

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

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

Name of the location

3. Sample Collected By

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

Date of Sample Receipt

Sample Code

Analysis Starting Date 8.

9. Sample Tested as Received

Analysis Completion Date

Kallahalli Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

14.02.2023

15.02.2023

1973

15.02.2023

17.02.2023

S.No	Parameter	Protocols	Shi	ift wise re	esults	Units	Result in Avg.	Tolerance limits
		Samuel of the same	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

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/2023/1795

Name of the Project

Issue Date: 17.02.2023

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

Vyasanakere, Hanumanahalli Village,

Hospet Taluk, Bellary District, Karnataka.

Name of the location 2.

Sample Collected By 3.

Vysanakere Village MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling 5.

14.02.2023

Date of Sample Receipt

15.02.2023

7. Sample Code 1974

Analysis Starting Date 8.

15.02.2023

Analysis Completion Date 10. Sample Tested as Received 17.02.2023

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance limits
	402	. 30	1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	55.8	54.1	53.4	μg / m³	54.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.10	17.40	15.70	μg / m³	17.0	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.20	8.50	7.60	μg / m³	8.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.80	13.70	12.65	μg / m³	13.7	80
5	Ozone as O ₃	IS 5182(part-9)	8.70	7.50	7.90	μg / m³	8.03	100
6	Lead	IS-5182(Part22)	0.028	0.024	0.022	μg / m³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.24	0.2	mg/m³	0.24	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³		400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.3	1.28	1.26	μg / m³	1.28	20

INFERENCE

As per NAAQS Standards

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

Analysed by



- Le. 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.

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Recognition by MoEF under Environment (Protection) Act, 1986 (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): 08392-255169,

E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1795

Issue Date: 17.02.2023

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

Vysanakere Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling Date of Sample Receipt 14.02.2023 15.02.2023

7. Sample Code

1974

Analysis Starting Date 8.

15.02.2023

Analysis Completion Date

17.02.2023

Sample Tested as Received 10.

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
77.8			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.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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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No: Mob: 94498 03895, (0): 08392-255169,

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1796

Issue Date: 17.02.2023

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.

3. Sample Collected By

Particulars of the sample

Date of Sampling

Date of Sample Receipt 6. Sample Code 7.

4.

8. **Analysis Starting Date**

Analysis Completion Date 9.

Gunda Village

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

14.02.2023

15.02.2023 1975

15.02.2023

Sample Tested as Received 10.

17.02.2023

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result in Avg.	Tolerance limits
5.110	T di dinotor	, 0	1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.2	53.2	52.2	μg / m³	53.20	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	16.3	15.2	14.2	μg / m³	15.23	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.0	8.4	7.1	μg / m³	8.17	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	18.0	16.7	15.65	μg / m³	16.78	80
5	Ozone as O ₃	IS 5182(part-9)	7.8	6.2	5.8	μg / m³	6.60	100
6	Lead	IS-5182(Part22)	1.41	1.36	1.28	μg / m³	1.350	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.29	0.26	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	1.28	1.24	1.20	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 B. Chimna 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.



Recognition by MoEF under Environment (Protection) Act, 1986 (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): 08392-255169,

E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/A/F/16/03

Issue Date: 17.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1796

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 5. Date of Sampling

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

14.02.2023 15.02.2023

7. Sample Code 8. **Analysis Starting Date** 1975 15.02.2023

Analysis Completion Date

17.02.2023

Sample Tested as Received 10.

S.No	Parameter	Protocols	Sh	ift wise re	sults	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	μg / m³	<0.01	6

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

Analysed by

Authorized Signatory - Ll. 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.

110



Recognition by MoEF under Environment (Protection) Act, 1986
(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): 08392-255169,

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1928

Issue Date: 20.02.2023

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 sample5. Date of Sampling

: Sample collected with RDS APM460 and FDS GTI-131

6. Date of Sample Receipt

16.02.2023 17.02.2023

7. Sample Code

: 2141 : 17.02.2023

8. Analysis Starting Date9. Analysis Completion Date

: 20.02.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result	Tolerance limits
00			1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.4	53.5	51.3	μg / m³	52.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	22.8	23.6	21.5	μg / m³	22.6	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.8	10.9	8.4	μg / m³	9.7	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.7	18.6	16.2	$\mu g / m^3$	17.5	80
5	Ozone as O ₃	IS 5182(part-9)	10.6	11.4	10.1	μg / m³	10.7	100
6	Lead	IS-5182(Part22)	0.026	0.028	0.024	μg / m³	0.026	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.37	0.38	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	1.26	1.28	1.25 μg	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

BALLARI PA

B.Chinna Lingana Gouda
Chief executive of the laboratory

Page:1

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.



Recognition by MoEF under Environment (Protection) Act, 1986 (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) : 08392-255169,

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1928

Issue Date: 20.02.2023

< 0.01

< 0.01

1

6

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

16.02.2023 17.02.2023

6. Date of Sample Receipt7. Sample Code

2141

8. Analysis Starting Date

: 17.02.2023

9. Analysis Completion Date

: 20.02.2023

10. Sample Tested as Received

CPCB Procedure

CPCB Procedure

			Man Pa					
S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance
	16 24		1	2	3			limits
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	μg / m ³	<0.01	5

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

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

Analysed by

11

12

Benzo (α) Pyrene

(BaP)
Arsenic as As

Authorized Signatory

 $\mu g / m^3$

 $\mu g / m^3$

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.



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

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1929

Issue Date: 20.02.2023

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 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample Date of Sampling 5.

Sample collected with RDS APM460 and FDS GTI-131 16.02.2023

Date of Sample Receipt

17.02.2023

7. Sample Code

10.

2142

Analysis Starting Date 8.

17.02.2023

9. **Analysis Completion Date** Sample Tested as Received 20.02.2023

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	55.6	56.7	54.2	μg / m³	55.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	18.8	19.9	17.6	μg / m³	18.7	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	10.06	10.26	9.19	μg / m³	9.84	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.57	19.26	9.19	μg / m³	15.3	80
5	Ozone as O ₃	IS 5182(part-9)	10.7	9.4	8.4	μg / m³	9.50	100
6	Lead	IS-5182(Part22)	0.026	0.030	0.020	μg / m³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.26	0.32	0.24	mg/m³	0.27	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	1.24	1.20	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

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

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

Page:1

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1929

Issue Date: 20.02.2023

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.

Sample Collected By

Particulars of the sample 4.

Date of Sampling Date of Sample Receipt 6.

Sample Code **Analysis Starting Date** 8.

9. **Analysis Completion Date** Kallahalli Village MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

16.02.2023 17.02.2023

2142 17.02.2023 20.02.2023

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance
		-	1	2	3	18.	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

Sagar

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/2023/1929

Issue Date: 20.02.2023

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

Vysanakere Village

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

Date of Sampling

Sample collected with RDS APM460 and FDS GTI-131 16.02.2023

Date of Sample Receipt

17.02.2023

7. Sample Code 2143

Analysis Starting Date 8.

17.02.2023

Analysis Completion Date

20.02.2023

10.	Sample Tested as Received	i

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result	Tolerance limits
	2.2		1	2	3		in Avg.	
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	58.6	57.1	56.2	μg / m³	57.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	22.6	21.0	20.1	μg / m³	21.2	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.04	7.82	7.01	μg / m³	7.9	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.76	16.06	15.41	μg / m³	16.0	80
5	Ozone as O ₃	IS 5182(part-9)	8.8	9.2	7.6	μg / m³	8.5	100
6	Lead	IS-5182(Part22)	0.029	0.026	0.024	$\mu g / m^3$	0.026	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.32	0.24	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	1.27	1.29	1.25	μg / m³	1.27	20

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

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

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1930

Issue Date: 20.02.2023

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.

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling 5.

16.02.2023

Date of Sample Receipt

17.02.2023 2143

Sample Code 7. 8.

17.02.2023

Analysis Starting Date Analysis Completion Date

20.02.2023

Sample Tested as Received 10.

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits
	1		1	2	3	39	Avg.	iiiiits
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,

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E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1931

Issue Date: 20.02.2023

Name of the Project

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

(Metal & Ferro Alloys Plant)

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

Sample collected with RDS APM460 and FDS GTI-131

Name of the location

Gunda Village

Sample Collected By 3.

Particulars of the sample

MSV Analytical Laboratories, Bellary.

Date of Sampling Date of Sample Receipt 16.02.2023

Sample Code 7.

17.02.2023 2144

8. **Analysis Starting Date** 17.02.2023

9. **Analysis Completion Date** 20.02.2023

Sample Tested as Received 10.

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result	Tolerance
00	4.2	,0	1	2	3		in Avg.	100 60 80
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	59.3	58.7	57.1	μg / m³	58.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	23.4	22.5	21.2	μg / m³	22.3	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.19	8.54	7.15	μg / m³	8.2	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	16.11	14.26	14.20	μg / m³	14.8	80
5	Ozone as O ₃	IS 5182(part-9)	8.8	8.0	6.8	μg / m³	7.8	100
6	Lead	IS-5182(Part22)	0.030	0.028	0.026	μg / m³	0.028	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.34	0.30	mg/m³	0.31	2
8	Ammonia as NH₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.28	1.26	1.24	μg / m³	1.26	20

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:1

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

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 20.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/1931

1. Name of the Project

2. Name of the location Sample Collected By

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

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

8. **Analysis Starting Date Analysis Completion Date** 9. 10. Sample Tested as Received M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

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

Gunda Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

16.02.2023 17.02.2023 2144

17.02.2023 20.02.2023

S.No	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 / 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 -1-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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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/2533

Issue Date: 23.02.2023

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

3. Sample Collected By

4. Particulars of the sample

Date of Sampling

6. Date of Sample Receipt

8. Analysis Starting Date9. Analysis Completion Date

Sample Code

Analysis Completion Date
 Sample Tested as Received

Smiore Colony

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

20.02.2023 21.02.2023

: 2714 : 21.02.2023 : 23.02.2023

Shift wise results Result Tolerance S.No Parameter **Protocols** Units in Avg. limits 1 58.3 Particulate Matter PM₁₀ IS-5182(Part-23) 58.4 59.2 57.4 100 1 $\mu g / m^3$ LAB SOP 2 Particulate Matter or PM_{2.5} 21.1 22.8 20.5 21.5 60 $\mu g / m^3$ MSVAL/SOP/A/005 3 IS-5182(Part-2) 10.5 9.5 80 Sulphur Dioxide as SO₂ 11.8 $\mu g / m^3$ 10.6 Oxides of Nitrogen as NOx IS-5182(Part-6) 19.2 20.6 18.3 80 4 $\mu g / m^3$ 19.4 100 5 Ozone as O₃ IS 5182(part-9) < 0.01 < 0.01 < 0.01 $\mu g / m^3$ < 0.01 6 Lead IS-5182(Part22) 0.080 0.081 0.079 $\mu g / m^3$ 0.080 1 LAB SOP 7 Carbon Monoxide as CO 0.28 0.30 0.26 mg/m^3 0.28 2 MSVAL/SOP/A/007 LAB SOP < 0.01 < 0.01 < 0.01 400 8 Ammonia as NH₃ < 0.01 $\mu g / m^3$ MSVAL/SOP/A/006 LAB SOP 20 9 1.20 1.21 1.19 Nickel as Ni $\mu g / m^3$ 1.20 MSVAL/SOP/A/008

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

Analysed by

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

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Recognition by MoEF under Environment (Protection) Act, 1986

(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): 08392-255169,

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 23.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/2533 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.

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

20.02.2023 21.02.2023

Date of Sample Receipt 6.

2714

7. Sample Code

Analysis Starting Date 8. 9.

21.02.2023

Analysis Completion Date Sample Tested as Received 23.02.2023

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Tolerance	
			1	2	3	0 111.00	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

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

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/2534

Issue Date: 23.02.2023 M/s. The Sandur Manganese & Iron Ores Ltd.

Name of the Project

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

Hospet Taluk, Bellary District, Karnataka.

2. Name of the location Kallahalli Village

Sample Collected By 4.

MSV Analytical Laboratories, Bellary.

Particulars of the sample Date of Sampling

Sample collected with RDS APM460 and FDS GTI-131 20.02.2023

Date of Sample Receipt 6.

21.02.2023

Sample Code **Analysis Starting Date** R.

10.

2715 21.02.2023

9. **Analysis Completion Date**

Sample Tested as Received

23.02.2023

S.No	Parameter	Protocols	Shi	Shift wise results Units		Result	Tolerance	
00			1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	53.5	54.8	52.3	μg / m³	53.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	17.2	18.6	16.4	μg / m³	17.4	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.55	8.15	6.75	μg / m³	7.5	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.6	15.2	13.8	μg / m ³	14.5	80
5	Ozone as O ₃	IS 5182(part-9)	8.2	9.4	7.0	μg / m³	8.2	100
6	Lead	IS-5182(Part22)	0.030	0.031	0.029	μg / m³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.23	0.24	0.22	mg/m³	0.23	2

As per NAAQS Standards **INFERENCE**

LAR SOP

MSVAL/SOP/A/006 LAB SOP

MSVAL/SOP/A/008

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

< 0.01

1.13

< 0.01

1.10

< 0.01

1.12

Analysed by

Ammonia as NH₃

Nickel as Ni

8

9

B. Chinna Lingana Gouda Chief executive of the laboratory

 $\mu g / m^3$

 ng / m^3

< 0.01

1.12

400

20

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

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 23.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/2534

Name of the Project 1.

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

(Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village,

MSV Analytical Laboratories, Bellary.

Hospet Taluk, Bellary District, Karnataka. Kallahalli Village

Sample collected with RDS APM460 and FDS GTI-131

Name of the location

3. Sample Collected By

Particulars of the sample

Date of Sampling

Date of Sample Receipt

Sample Code 7.

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

Sample Tested as Received

2715 21.02.2023

23.02.2023

20.02.2023

21.02.2023

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units Result in		Tolerance
	10		1	2	3		Avg.	limits 5
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

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.

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Recognition by MoEF under Environment (Protection) Act, 1986
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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No: Mob: 94498 03895, (0): 08392-255169,

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/2535

Issue Date: 23.02.2023

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 sample5. Date of Sampling

Sample collected with RDS APM460 and FDS GTI-131

6. Date of Sample Receipt

20.02.2023 : 21.02.2023

7. Sample Code

2716

8. Analysis Starting Date

21.02.2023

9. Analysis Completion Date

: 23.02.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shir	ft wise res	ults	Units	Result in Avg.	Tolerance limits
		.9	1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	55.2	54.1	53.7	μg / m³	54.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	16.2	15.5	14.9	μg / m³	15.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.05	7.75	6.5	μg / m³	7.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	13.3	12.6	11.2	μg / m³	12.3	80
5	Ozone as O ₃	IS 5182(part-9)	6.2	6.0	5.9	μg / m³	6.0	100
6	Lead	IS-5182(Part22)	0.022	0.021	0.020	μg / m³	0.020	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	1.36	1.35	1.33	ng / 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 REPORT!-

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

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

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

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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

Issue Date: 23.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/2535

Name of the Project

2. Name of the location

Sample Collected By 3. Particulars of the sample **Date of Sampling**

Date of Sample Receipt 6.

Sample Code 8.

Analysis Starting Date Analysis Completion Date

Sample Tested as Received 10.

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

20.02.2023 21.02.2023

2716

21.02.2023

23.02.2023

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
	7.4	V. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	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	$\mu g / m^3$	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/2536

Issue Date: 23.02.2023

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 sample5. Date of Sampling

: Sample collected with RDS APM460 and FDS GTI-131

6. Date of Sample Receipt

20.02.2023 : 21.02.2023

7. Sample Code

: 2717 : 21.02.2023

8. Analysis Starting Date9. Analysis Completion Date

: 23.02.2023

10. Sample Tested as Received

: 23.02..

S.No	Parameter	Protocols	Shii	ft wise res	ults	Units	Result in Avg.	Tolerance limits
5			1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	54.9	55.5	53.2	μg / m³	54.5	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	20.1	21.4	19.5	μg / m³	20.3	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.5	8.7	6.5	μg / m³	7.5	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	15.85	16.4	14.8	μg / m³	15.6	80
5	Ozone as O ₃	IS 5182(part-9)	8.2	8.4	8.0	μg / m³	8.2	100
6	Lead	IS-5182(Part22)	0.020	0.021	0.022	μg / m³	0.021	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.22	0.24	0.20	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	1.20	1.21	1.22	μg / m³	1.21	20

INFERENCE

As per NAAQS Standards

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

Analysed by

BALAS P END OF REPORT Authorized Signatory
B. Chima Lingana Gouda
Chief executive of the laboratory

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

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^{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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 23.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/2536 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.

Gunda 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

20.02.2023 21.02.2023

Date of Sample Receipt

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

2717

Analysis Completion Date 9.

21.02.2023 23.02.2023

10.

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
		V Same	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	INFERENCE
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Analysed by

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

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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/00973

Issue Date: 27.02.2023

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

24.02.2023 : 25.02.2023

6. Date of Sample Receipt7. Sample Code

: 2474

8. Analysis Starting Date

: 25.02.2023

9. Analysis Completion Date

: 27.02.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shif	ft wise res	ults	Units	Result in Avg.	Tolerance limits
	20		1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	52.0	53.6	51.0	μg / m³	52.2	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	24.8	25.4	23.2	μg / m³	24.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	10.45	11.15	9.55	μg / m³	10.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	18.8	19.4	17.4	μg / m ³	18.5	80
5	Ozone as O ₃	IS 5182(part-9)	11.4	12.6	10.2	μg / m³	11.4	100
6	Lead	IS-5182(Part22)	0.025	0.026	0.024	µg / m³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.24	0.26	0.22	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

ENO OLATERORT

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.



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

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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 27.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/00973 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

24.02.2023

Date of Sample Receipt 6.

25.02.2023 2474

Sample Code

Analysis Starting Date 8.

25.02.2023

Analysis Completion Date

27.02.2023

10. Sample Tested as Received

S.No	Parameter	Sh	ift wise re	esults	Units	Result in	Tolerance limits	
	16	n 1 n	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,

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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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/00974

Issue Date: 27.02.2023

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 By4. Particulars of the sample

: MSV Analytical Laboratories, Bellary.

5. Date of Sampling

: Sample collected with RDS APM460 and FDS GTI-131

6. Date of Sample Receipt

24.02.2023 : 25.02.2023

7. Sample Code

2475

7. Sample Code

: 25.02.2023

8. Analysis Starting Date
9. Analysis Completion Date

27.02.2023

10. Sample Tested as Received

Shift wise results Result Tolerance S.No Parameter **Protocols** Units in Avg. limits 1 3 1 Particulate Matter PM₁₀ IS-5182(Part-23) 54.1 54.3 100 55.6 53.2 $\mu g / m^3$ LAB SOP 2 Particulate Matter or PM_{2.5} 17.6 18.8 16.6 $\mu g / m^3$ 17.7 60 MSVAL/SOP/A/005 3 Sulphur Dioxide as SO2 IS-5182(Part-2) 7.75 8.1 6.75 $\mu g / m^3$ 7.5 80 Oxides of Nitrogen as NO_x IS-5182(Part-6) 18.2 20.5 17.35 80 4 $\mu g / m^3$ 18.7 5 $\mu g \, / \, m^3$ 100 Ozone as O₃ IS 5182(part-9) 8.4 8.6 7.2 8.1 6 Lead IS-5182(Part22) 0.026 0.027 0.025 1 $\mu g / m^3$ 0.026 LAB SOP 7 Carbon Monoxide as CO 0.32 2 0.30 0.28 0.30 mg/m^3 MSVAL/SOP/A/007 LAB SOP 8 Ammonia as NH₃ < 0.01 < 0.01 < 0.01 $\mu g / m^3$ < 0.01 400 MSVAL/SOP/A/006 LAB SOP 9 20 Nickel as Ni 1.28 1.29 1.27 $\mu g / m^3$ 1.28 MSVAL/SOP/A/008

INFERENCE

As per NAAQS Standards

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

Analysed by

END OF REPOR

B. Chinna 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.

^{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) : 08392-255169,

E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

Issue Date: 27.02.2023

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/00974 Name of the Project

3.

4.

5.

6. 7.

8.

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

(Metal & Ferro Alloys Plant)

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

Kallahalli Village

Name of the location Sample Collected By MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

24.02.2023 25.02.2023

Date of Sample Receipt Sample Code 2475 Analysis Starting Date

25.02.2023 27.02.2023

Analysis Completion Date Sample Tested as Received 10.

Date of Sampling

Particulars of the sample

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance	
)	1	2	3	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





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

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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/00975

Issue Date: 27.02.2023

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

3. Sample Collected By MSV Analytical Laboratories, Bellary.

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

Sample collected with RDS APM460 and FDS GTI-131 24.02.2023

Date of Sample Receipt

25.02.2023

7. Sample Code 2476

8. **Analysis Starting Date Analysis Completion Date** 25.02.2023

9.

27.02.2023

10. Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result in Avg.	Tolerance limits
			1	2	3	Ė		
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	59.5	58.6	57.2	μg / m³	58.4	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	23.8	22.4	21.8	μg / m³	22.7	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.45	8.1	7.45	μg / m³	8.3	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.6	16.25	15.8	μg / m³	16.6	80
5	Ozone as O ₃	IS 5182(part-9)	8.9	8.8	8.4	μg / m³	8.7	100
6	Lead	IS-5182(Part22)	0.026	0.025	0.024	μg / m³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.24	0.23	0.22	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	1.37	1.36	1.35	μg / m³	1.36	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,

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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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/00975

Issue Date: 27.02.2023

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

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sampling Date of Sample Receipt 24.02.2023 25.02.2023

6. Sample Code

2476

Analysis Starting Date 8.

25.02.2023

Analysis Completion Date

27.02.2023

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits
	w/		1	2	-3	<u>.</u>	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

Analysed by



Authorized Signatory LP-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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^{5.} Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.



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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellarv.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/00976

Issue Date: 27.02.2023

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

3. Sample Collected By MSV Analytical Laboratories, Bellary,

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

5. **Date of Sampling** 24.02.2023 25.02.2023

Date of Sample Receipt 7.

2477

Sample Code 8.

25.02.2023

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

27.02.2023

Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀	IS-5182(Part-23)	59.2	58.6	57.2	μg / m³	58.3	100
2	Particulate Matter or PM _{2.5}	LAB SOP MSVAL/SOP/A/005	23.5	22.8	21.2	μg / m³	22.5	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.45	8.8	7.2	μg / m³	8.4	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	17.95	16.55	15.6	μg / m³	16.7	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)	0.025	0.024	0.023	μg / m³	0.024	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.30	0.26	mg/m³	0.28	2
8	Ammonia as NH 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	1.23	1.22	μg / m³	1.23	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.

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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2023/00976

Name of the Project

Name of the location 3. Sample Collected By

Particulars of the sample 4.

Date of Sampling 5. Date of Sample Receipt

Sample Code 7. 8. **Analysis Starting Date Analysis Completion Date** 9.

Sample Tested as Received

Issue Date: 27.02.2023 M/s. The Sandur Manganese & Iron Ores Ltd.

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

Gunda Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

24.02.2023 25.02.2023 2477 25.02.2023

27.02.2023

S.No	Parameter Protocols		Shift wise results			Units	Result in	Tolerance limits
)	1	2	.3		Avg.	IIIIIII
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

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

^{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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No:MSVAL/2023/2537

Report Issued Date: 23.02.2023

Name of the Industry 1.

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

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka. Coke Screening& Store

2. Stack ID

Sample Collected By 3.

MSV Analytical Laboratories, Bellary. Sample collected with VSS - 1 4. Particulars of Sample Collected

5. Date of Sample Receipt

20.02.2023 Sample Code 2718

Analysis Starting Date 7.

6.

21.02.2023 23.02.2023

Analysis Completion Date 8.

9. Sample Tested as Received

GENERAL DETAILS			
Date of Monitoring	24.02.2023		
Fuel Used			
Stack Temperature (°C)	41		
Velocity (m/s)	6.2		
Height (m)	15mtrs AGL		
Diameter (m)	0.7		
Cross sectional area (m²)	0.38465		

CENEDAL DETAILS

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm ³	30.4	50

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

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda Chief executive of the laboratory

. 1

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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/2538

Report Issued Date: 23.02.2023

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 – 120.02.2023

5. Date of Sample Receipt6. Sample Code

: 2718

7. Analysis Starting Date

: 21.02.2023

8. Analysis Completion Date

: 23.02.2023

9. Sample Tested as Received

GENERAL DETAILS

<u>GENERAL E</u>	ETTILES
Date of Monitoring	24.02.2023
Fuel Used	
Stack Temperature (°C)	41
Velocity (m/s)	4.2
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	31.2	50

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

^{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.



Recognition by MoEF under Environment (Protection) Act, 1986 (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): 08392-255169,

E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/2539

Report Issued Date: 23.02.2023

Name of the Industry

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

(Metal & Ferro Allovs Plant)

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

2. Stack ID **Coal Crushing Area**

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of Sample Collected 4.

Sample collected with VSS - 1

5. **Date of Sample Receipt** 20.02.2023

Sample Code 6.

2718

Analysis Starting Date 7.

21.02.2023

Analysis Completion Date 8. Sample Tested as Received 9.

23.02.2023

GENERAL DETAILS

<u>deneral de l'ales</u>			
20.02.2023			
30			
5.4			
15mtrs AGL			
0.75			
0.44156			
Date of Monitoring Fuel Used Stack Temperature (°C) Velocity (m/s) Height (m) Diameter (m) Cross sectional area (m²)			

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm ³	28	50

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



Recognition by MoEF under Environment (Protection) Act, 1986 (Certified by ISO-14001-2015,ISO 22000-2018, ISO 45001-2018,ISO 9001-2015)

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: TC720722000022294F

Report Issued Date: 23.02.2023

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

: DG Set 750 KVA

3. Sample Collected By

: MSV Analytical Laboratories, Bellary.

4. Particulars of Sample Collected

: Sample collected with VSS - 1

5. Date of Sample Receipt

: 20.02.2023

6. Sample Code

: 3069

7. Analysis Starting Date

: 21.02.2023

8. Analysis Completion Date

: 23.02.2023

9. Sample Tested as Received

GENERAL DETAILS

GENERALE DETRIES				
Date of Monitoring	20.02.2023			
Fuel Used	Diesel			
Stack Temperature (°C)	106			
Velocity (m/s)	6.44			
Height (m)	15mtrs AGL			
Diameter (m)	0.3			
Cross sectional area (m ²)	0.07065			

RESULTS

Parameters	Protocol	Unit	Result	KSPCB Consent Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	23.3	100
Sulphur dioxide	IS-11255(Part2) - 1985	PPM	20.6	50
Nitrogen dioxide	IS-11255(Part7) - 2005	PPM	18.4	50

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

Analysed by

Authorized Signatory

B.Chimna 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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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/2559

Name of the Industry

Report Issued Date: 27.02.2023

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

Vyasanakere, Hanumanahalli Village,

Hospet Taluk, Bellary District, Karnataka.

Ferro Alloy Arc Furnace 5

MSV Analytical Laboratories, Bellary.

Sample collected with VSS - 1

24.02.2023

2905

25.02.2023

27.02.2023

Stack ID 2.

3. Sample Collected By

Particulars of Sample Collected

Date of Sample Receipt 5.

6. Sample Code

7. **Analysis Starting Date**

Analysis Completion Date 8.

9. Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	24.02.2023
Fuel Used	
Stack Temperature (°C)	40
Velocity (m/s)	6.56
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

KEBOBIO				
Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	31.8	150
Sulphur dioxide	IS-11255(Part2) – 1985	mg/Nm³	20.2	800
Nitrogen dioxide	IS-11255(Part7) – 2005	mg/Nm³	32.5	500
Carbon Monoxide as(CO)	IS 13270	%	0.32	Max 1%
Oxygen as O2	Instrument Method	%	5.2	

INFERENCE

As per GSR 277 (E) Standards.

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

within the limits.

Analysed by

B.Chinna Lingana Gouda Chief executive of the laboratory

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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/2560

Report Issued Date: 27.02.2023

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.

Ferro Alloy Arc Furnace 3

MSV Analytical Laboratories, Bellary.

Sample collected with VSS - 1

24.02.2023

2906

25.02.2023

27.02.2023

2. Stack ID

3. Sample Collected By

Particulars of Sample Collected

Date of Sample Receipt 5.

Sample Code 6.

Analysis Starting Date 7.

Analysis Completion Date 8.

Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	24.02.2023
Fuel Used	 7
Stack Temperature (°C)	45
Velocity (m/s)	6.01
Height (m)	35 mtrs AGL
Diameter (m)	2.5
Cross sectional area (m²)	4.90625
Flow/Discharge Rate of Gas Nm³/Hr	108094.5

DECHITC

KESUL15					
Parameters	Protocol	Unit	Result	GSR 277 (E) Standards	
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm ³	32.5	150	
Sulphur dioxide	IS-11255(Part2) – 1985	mg/Nm³	22.25	800	
Nitrogen dioxide	IS-11255(Part7) – 2005	mg/Nm³	36.5	500	
Carbon Monoxide as(CO)	IS 13270	%	0.28	Max 1%	
Oxygen as O2	Instrument Method	%	5.50		

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

Report Status:- The analyzed value for above measured parameter is within the limits.

Analysed by

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

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

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Authorized Signatory

- cl.2 **B.Chinna Lingana Gouda** Chief executive of the laboratory



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

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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No:MSVAL/2023/2707

Name of the Industry

Report Issued Date: 02.03.2023

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

(Metal & Ferro Alloys Plant)

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

Coke Oven Battery - Passes Through WHRB-1

MSV Analytical Laboratories, Bellary.

Sample collected with VSS - 1

27.02.2023

3067

28.02.2023

02.03.2023

2. Stack ID

Sample Collected By 3.

Particulars of Sample Collected 4.

Date of Sample Receipt 5.

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

Analysis Completion Date 8.

Sample Tested as Received 9.

GENERAL DETAILS

Date of Monitoring	27.02.2023
Fuel Used	
Stack Temperature (°C)	120
Velocity (m/s)	6.61
Height (m)	60 mtrs AGL
Diameter (m)	4.6
Cross sectional area (m²)	16.61
Flow/Discharge Rate of Gas Nm³/Hr	275061.6

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS <mark>-1</mark> 1255(Part1) – 1985	mg/Nm³	25.0	50
Sulphur dioxide	IS-11255(Part2) – 1985	mg/Nm³	22.1	800
Nitrogen dioxide	IS-11255(Part7) – 2005	mg/Nm³	56.8	500
Carbon Monoxide as(CO)	IS 13270	%	0.24	Max 1%
Oxygen as O2	Instrument Method	%	5.20	

As per GSR 277 (E) Standards. Report Status: The analyzed value for above measured parameter is **INFERENCE** 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, ____EN 2. Water samples will destroyed after 10days, Filter papers & Tambles will be

 \overrightarrow{OF} REPORT:-destroyed smonths 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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E-mail: msv.lab01@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: MSVAL/2023/2708

1. Name of the Industry

Report Issued Date: 02.03.2023

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

(Metal & Ferro Alloys Plant)

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

: Coke Oven Battery - Passes Through WHRB-2

: MSV Analytical Laboratories, Bellary.

: Sample collected with VSS – 1

: 27.02.2023

: 3068

: 28.02.2023

: 02.03.2023

2. Stack ID

3. Sample Collected By

4. Particulars of Sample Collected

5. Date of Sample Receipt

6. Sample Code

7. Analysis Starting Date

8. Analysis Completion Date

9. Sample Tested as Received

GENERAL DETAILS

GBITER	DETTILO
Date of Monitoring	27.02.2023
Fuel Used	
Stack Temperature (°C)	150
Velocity (m/s)	7.12
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	21.8	50
Sulphur dioxide	hur dioxide IS-11255(Part2) - mg/Nm ³ 30		30.7	800
Nitrogen dioxide	IS-11255(Part7) – 2005	mg/Nm³	54.2	500
Carbon Monoxide as(CO) IS 13270		%	0.26	Max 1%
Oxygen as O2 Instrument Method % 6.2				

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

Analysed by

Authorized Signatory

B.Chimna Lingana Gouda
Chief executive of the laboratory

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

E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/S/F/01/00

REPORT OF SOIL QUALITY DATA

Test Report No: MSVAL/2023/2335

Report Issued Date:21.02.2023

1 Name of the Industry : M

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

(Metal & Ferro Alloys Plant)

Vya<mark>san</mark>akere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

2. Name of the sample :

Soil Sample-Inside The Plant

3. Sample Collected By

MSV Analytical Lab<mark>ora</mark>tories, Bellary Composite sample

4. Particulars of Sample Collected

: 10 Kg

5. Sample Quantity6. Date of Sampling

17.02.2023

7. Date of sample Receipt

17.02.2023

8. Sample Code

2377

9. Analysis Starting Date10. Analysis Completion Date

: 18.02.2023 : 20.02.2023

11. Sample tested as Received

SI. No	Parameters	protocol	Unit	Result
1	рН	IS:2720 (Part-26);1987	2	7.2
2	Moisture	1S:2720 Part -2	%	4.18
3	Conductivity	1S:14767	mS/cm	1.520
4	Sulphur	MSVAL/SOP/S-05	Kg/ha	35.6
5	Available Nitrogen	MSVAL/SOP/S-07	Kg/ha	235.2
6	Available Potassium as K	MSVAL/SOP/S-11	Kg/ha	330.6
7	Available Phosphorous as P	MSVAL/SOP/S-06	Kg/ha	18.6
8	Extractable Magnesium	MSVAL/SOP/S-09	Meq/l	20.8
9	Extractable Calcium	MSVAL/SOP/S-08	Meq/l	124
10	Organic Carbon	IS:2720 (Part-23); 1972	%	0.68
11	Available Iron	MSVAL/SOP/S-10	mg/kg	2.26
12	Available Manganese	MSVAL/SOP/S-10	mg/kg	1.32
13	Available Zinc	MSVAL/SOP/S-10	mg/kg	0.52
14	Available Copper	MSVAL/SOP/S-10	mg/kg	0.14

Analysed by

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

Authorized Signatory

B.Chimna Lingana Gouda Chief executive of the laboratory

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/S/F/01/00

REPORT OF SOIL QUALITY DATA

Test Report No: MSVAL/2023/2336

Report Issued Date: 21.02.2023

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 sample3. Sample Collected By

Soil Sample - Outside the plant
MSV Analytical Laboratories, Bellary

4. Particulars of Sample Collected

Composite sample

5. Sample Quantity6. Date of Sampling

10 Kg

7. Date of sample Receipt

17.02.2023 17.02.2023

8. Sample Code

2378

9. Analysis Starting Date

18.02.2023 20.02.2023

10. Analysis Completion Date11. Sample tested as Received

11. Sample tested as Received

Sl. No	Parameters	protocol	Unit	Result
1	рН	IS:2720 (Part-26);1987	N	6.85
2	Moisture	1S:2720 Part -2	%	4.26
3	Conductivity	1S:14767	mS/cm	1.610
4	Sulphur	MSVAL/SOP/S-05	Kg/ha	38.6
5	Available Nitrogen	MSVAL/SOP/S-07	Kg/ha	234.2
6	Available Potassium as K	MSVAL/SOP/S-11	Kg/ha	316.6
7	Available Phosphorous as P	MSVAL/SOP/S-06	Kg/ha	21.6
8	Extractable Magnesium	MSVAL/SOP/S-09	Meq/l	32.8
9	Extractable Calcium	MSVAL/SOP/S-08	Meq/l	144
10	Organic Carbon	IS:2720 (Part-23);	%	0.48
11	Available Iron	MSVAL/SOP/S-10	mg/kg	2.36
12	Available Manganese	MSVAL/SOP/S-10	mg/kg	1.22
13	Available Zinc	MSVAL/SOP/S-10	mg/kg	0.82
14	Available Copper	MSVAL/SOP/S-10	mg/kg	0.18

Analysed by

END OF REPORT:

B.Chinna Lingana Gouda
Chief executive of the laboratory

Authorized Signatory

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/S/F/01/00

REPORT OF SOIL QUALITY DATA

Test Report No: MSVAL/2023/2337

Report Issued Date: 21.02.2023

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

Soil Sample-Smiore colony

3. Sample Collected By

: MSV Analytical Laboratories, Bellary

4. Particulars of Sample Collected

Composite sample

5. Sample Quantity

10 Kg

6. Date of Sampling7. Date of sample Receipt

17.02.2023 17.02.2023

8. Sample Code

2379

9. Analysis Starting Date

18.02.2023

10. Analysis Completion Date

20.02.2023

11. Sample tested as Received

Sl. No	Parameters	protocol	Unit	Result
1	рН	IS:2720 (Part-26);1987		6.5
2	Moisture	1S:2720 Part -2	%	7.52
3	Conductivity	1S:14767	mS/cm	1.350
4	Sulphur	MSVAL/SOP/S-05	Kg/ha	32.6
5	Available Nitrogen	MSVAL/SOP/S-07	Kg/ha	252.2
6	Available Potassium as K	MSVAL/SOP/S-11	Kg/ha	382.6
7	Available Phosphorous as P	MSVAL/SOP/S-06	Kg/ha	26.6
8	Extractable Magnesium	MSVAL/SOP/S-09	Meq/l	30.8
9	Extractable Calcium	MSVAL/SOP/S-08	Meq/l	154
10	Organic Carbon	IS:2720 (Part-23); 1972	%	0.48
11	Available Iron	MSVAL/SOP/S-10	mg/kg	2.61
12	Available Manganese	MSVAL/SOP/S-10	mg/kg	1.09
13	Available Zinc	MSVAL/SOP/S-10	mg/kg	0.48
14	Available Copper	MSVAL/SOP/S-10	mg/kg	0.14

Analysed by

BALLAP END OF REPORT:-

B.Chinna Lingana Gouda
Chief executive of the laboratory

Authorized Signatory

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MSVAL/S/F/01/00

REPORT OF SOIL QUALITY DATA

Test Report No: MSVAL/2023/2338

Report Issued Date: 21.02.2023

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 :3. Sample Collected By :

Soil Sample – Kallahalli Village MSV Analytical Laboratories, Bellary

4. Particulars of Sample Collected

: Composite sample

5. Sample Quantity
6. Date of Sampling
7. Date of sample Receipt
8. Sample Code
10 Kg
17.02.2023
17.02.2023
2380

9. Analysis Starting Date: 18.02.202310. Analysis Completion Date: 20.02.2023

11. Sample tested as Received

Sl. No	Parameters	protocol	Unit	Result
1	рН	IS:2720 (Part-26);1987	F	6.10
2	Moisture	1S:2720 Part -2	%	6.56
3	Conductivity	1S:14767	mS/cm	1.325
4	Sulphur	MSVAL/SOP/S-05	Kg/ha	35.5
5	Available Nitrogen	MSVAL/SOP/S-07	Kg/ha	222.6
6	Available Potassium as K	MSVAL/SOP/S-11	Kg/ha	312.5
7	Available Phosphorous as P	MSVAL/SOP/S-06	Kg/ha	16.6
8	Extractable Magnesium	MSVAL/SOP/S-09	Meq/l	20.8
9	Extractable Calcium	MSVAL/SOP/S-08	Meq/l	132
10	Organic Carbon	IS:2720 (Part-23); 1972	%	0.58
11	Available Iron	MSVAL/SOP/S-10	mg/kg	2.45
12	Available Manganese	MSVAL/SOP/S-10	mg/kg	1.65
13	Available Zinc	MSVAL/SOP/S-10	mg/kg	0.32
14	Available Copper	MSVAL/SOP/S-10	mg/kg	0.15

Analysed by

BALLARI)

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

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com Website: www.msvalbellary.com

MSVAL/S/F/01/00

REPORT OF SOIL QUALITY DATA

Test Report No: MSVAL/2023/2339

Report Issued Date: 21.02.2023

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 sample3. Sample Collected By

Soil Sample - Vyasanakere village

4. Particulars of Sample Collected

MSV Analytical Laboratories, Bellary Composite sample

5. Sample Quantity6. Date of Sampling

10 Kg 17.02.2023

7. Date of sample Receipt

17.02.2023

8. Sample Code

2381

9. Analysis Starting Date10. Analysis Completion Date

18.02.2023 20.02.2023

11. Sample tested as Received

Sl. No	Parameters	protocol	Unit	Result
1	рН	IS:2720 (Part-26);1987		6.23
2	Moisture	1S:2720 Part -2	%	8.52
3	Conductivity	1S:14767	mS/cm	1.850
4	Sulphur	MSVAL/SOP/S-05	Kg/ha	34.6
5	Available Nitrogen	MSVAL/SOP/S-07	Kg/ha	295.2
6	Available Potassium as K	MSVAL/SOP/S-11	Kg/ha	362.6
7	Available Phosphorous as P	MSVAL/SOP/S-06	Kg/ha	19.6
8	Extractable Magnesium	MSVAL/SOP/S-09	Meq/l	22.8
9	Extractable Calcium	MSVAL/SOP/S-08	Meq/l	154
10	Organic Carbon	IS:2720 (Part-23); 1972	%	0.98
11	Available Iron	MSVAL/SOP/S-10	mg/kg	2.76
12	Available Manganese	MSVAL/SOP/S-10	mg/kg	1.62
13	Available Zinc	MSVAL/SOP/S-10	mg/kg	0.82
14	Available Copper	MSVAL/SOP/S-10	mg/kg	0.64

Analysed by

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

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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Recognition by MoEF under Environment (Protection) Act, 1986 (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): 08392-255169,

E-mail: msvalbellarv2018@gmail.com, labmsv@gmail.com Website: www.msvalbellarv.com

MSVAL/S/F/01/00

REPORT OF SOIL QUALITY DATA

Test Report No: MSVAL/2023/2340

Report Issued Date: 21.02.2023

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. Name of the sample Soil Sample - Gunda village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary

4. **Particulars of Sample Collected** Composite sample

5. Sample Quantity Date of Sampling 10 Kg 17.02.2023

6. Date of sample Receipt 7.

17.02.2023

Sample Code 8.

2382

9. **Analysis Starting Date** 18.02.2023 20.02.2023

10. **Analysis Completion Date**

Sample tested as Received

Sl. No	Parameters	protocol	Unit	Result
1	рН	IS:2720 (Part-26);1987	H	6.12
2	Moisture	1S:2720 Part -2	%	5.58
3	Conductivity	1S:14767	mS/cm	1.610
4	Sulphur	MSVAL/SOP/S-05	Kg/ha	35.5
5	Available Nitrogen	MSVAL/SOP/S-07	Kg/ha	213.2
6	Available Potassium as K	MSVAL/SOP/S-11	Kg/ha	323.6
7	Available Phosphorous as P	MSVAL/SOP/S-06	Kg/ha	19.6
8	Extractable Magnesium	MSVAL/SOP/S-09	Meq/l	26.8
9	Extractable Calcium	MSVAL/SOP/S-08	Meq/l	164
10	Organic Carbon	IS:2720 (Part-23); 1972	%	0.88
11	Available Iron	MSVAL/SOP/S-10	mg/kg	2.46
12	Available Manganese	MSVAL/SOP/S-10	mg/kg	1.22
13	Available Zinc	MSVAL/SOP/S-10	mg/kg	0.62
14	Available Copper	MSVAL/SOP/S-10	mg/kg	0.14

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda Chief executive of the laboratory

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