

## **PREFACE**

As per the conditions stipulated in the Consent for Establishment (CFE) and Consent for Operation (CFO), industries are required to monitor environmental parameters at specified frequencies and designated locations. The monitoring data must be submitted monthly to the respective State Pollution Control Board.

In line with this requirement, and as part of its commitment to environmental compliance and the health and safety of its employees and surrounding communities, **M/s. The Sandur Manganese & Iron Ores Ltd.** has engaged **M/s. Global Environment & Mining Services LLP, Hosapete**, to carry out comprehensive environmental monitoring. The scope of monitoring includes:

- Ambient Air Quality (AAQ) Monitoring
- Noise Level Monitoring
- Water Quality Analysis
- Stack Emissions Monitoring

All monitoring activities were carried out using standard sampling methodologies prescribed by the Central Pollution Control Board (CPCB) and in accordance with the frequencies and parameters outlined in the CFO conditions. The monitoring reports have been compiled accordingly and are being submitted to the Pollution Control Board as per compliance requirements.

We extend our sincere thanks to the officials of **M/s. The Sandur Manganese & Iron Ores Ltd.** for their valuable coordination and support during the sampling and reporting process.

**for GLOBAL Environment & Mining Services LLP**

**Place: Hosapete**  
**Date: 03.09.2025**

  
**K. Ramakrishna Reddy**  
**(Technical Manager)**





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

**ENVIRONMENTAL MONITORING REPORT**



**Vyasanakere, Hanumanahalli Post, M.M.Halli  
Hosapete-583222, Vijayanagara District,  
Karnataka.**

**AUGUST-2025**

**Prepared by**



**GLOBAL ENVIRONMENT & MINING SERVICES LLP**

**NABL & MOEFCC Recognized Laboratory**

(Consulting Engineers, Mine Designers, Geologists & Surveyors)

3<sup>rd</sup> main road, Basaveswara Badavane

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# **GLOBAL ENVIRONMENT & MINING SERVICES LLP**

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TC-16180

**ANNEXURE-01**  
**GEMS-LD/TF/11/01**

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

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

Customer Reference : Workorder No.4200011817 Dated:20.08.2025

Sample collected by : Global Environment & Mining Services LLP

Discipline : Chemical

Group : Atmospheric Pollution

Sample Type : Ambient Air Quality Monitoring

Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler

Month : **AUGUST-2025**

Location : **A1-Near Existing AAQMS 01 (SMIORE School)**

Report Issued Date : **03.09.2025**

Report Number : **ULR-TC1618025000001906F**

### **RESULTS**

| Parameters   |                         |             | PM <sub>10</sub><br>[µg/m <sup>3</sup> ] | PM <sub>2.5</sub><br>[µg/m <sup>3</sup> ]  | SO <sub>2</sub><br>[µg/m <sup>3</sup> ]    | NO <sub>2</sub><br>[µg/m <sup>3</sup> ]   | Ozone*<br>(O <sub>3</sub> ),<br>µg/m <sup>3</sup> | Ammonia<br>(NH <sub>3</sub> )<br>µg/m <sup>3</sup> |
|--|-------------------------|-------------|--|--|--|---|---|--|
| Reference Method   |                         |             | IS:5182: 2006<br>(Part-23)<br>(RF-2017)  | IS 5182<br>(Part 24):<br>2019<br>(RF-2024) | IS:5182:<br>2001<br>(Part-2)<br>Sec 1:2023 | IS:5182:<br>(Part-6)<br>2006<br>(RF-2017) | IS 5182<br>(Part 9): 1974                         | IS 5182<br>(Part 25)<br>2018                       |
| Date of Sampling   | Date of Sample Received | Sample Code | Result                                   | Result                                     | Result                                     | Result                                    | Result  | Result   |
| 08.08.2025   | 09.08.2025              | 3661        | 39.51                                    | 10.39                                      | 8.89                                       | 9.36                                      | 0.00  | <20.0  |
| 09.08.2025   | 10.08.2025              | 3729        | 31.88                                    | 8.53                                       | 9.82                                       | 13.30                                     | 0.00  | <20.0  |
| 11.08.2025   | 12.08.2025              | 3781        | 46.26                                    | 10.84                                      | 7.06                                       | 8.04                                      | 0.00  | <20.0  |
| 12.08.2025   | 13.08.2025              | 3815        | 35.91                                    | 12.15                                      | 6.92                                       | 10.32                                     | 0.00  | <20.0  |
| 22.08.2025   | 23.08.2025              | 4223        | 50.83                                    | 17.48                                      | 9.36                                       | 11.32                                     | 0.00  | <20.0  |
| 23.08.2025   | 24.08.2025              | 4267        | 56.07                                    | 12.20                                      | 9.25                                       | 13.52                                     | 0.00  | <20.0  |
| 25.08.2025   | 26.08.2025              | 4308        | 69.14                                    | 16.25                                      | 9.53                                       | 10.84                                     | 0.00  | <20.0  |
| 26.08.2025   | 27.08.2025              | 4330        | 58.56                                    | 13.49                                      | 6.78                                       | 8.39                                      | 0.00  | <20.0  |
| Average  |                         |             | 48.52                                    | 12.67                                      | 8.45                                       | 10.64                                     | 0.00  | <20.0  |
| Limits for Industrial,<br>Residential, Rural and other Areas |                         |             | 100                                      | 60   | 80   | 80  | 180   | 400  |
|  |                         |             | 24hrs                                    | 24hrs                                      | 24hrs                                      | 24hrs                                     | 1hrs*   | 24hrs  |

Note : \* Parameters monitored for period of 1 hrs.

|           |  |
|-----------|--|
| INFERENCE | As per NAAQMS Standards (2009),<br>Report Status: - Measured Values for the above parameters are within the limit. |
|-----------|--|

**\*\*End of the Report\*\***

*B. S. B.*  
Analysed By  
Brunda.B  
Chemist

*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager

#### **Note:**

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 7days, Waste Water After Analysis Discard the Samples, Minerals 3 Months, Filter papers & Thimbles After analysis Discard 7 days.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
- Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hospapete jurisdiction only.
- Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
- Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



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ANNEXURE-01  
GEMS-LD/TF/11/01

### ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

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

Customer Reference : Workorder No.4200011817 Dated:20.08.2025

Sample collected by : Global Environment & Mining Services LLP

Discipline : Chemical

Group : Atmospheric Pollution

Sample Type : Ambient Air Quality Monitoring

Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler

Month : **AUGUST-2025**

Location : **A1-Near Existing AAQMS 01 (SMIORE School)**

Report Issued Date : **03.09.2025**

Report Number : **GEMS/SMIORE/2025-26/1906**

| Parameters   |                  |             | Lead (Pb),<br>µg/m <sup>3</sup>  | Nickel (Ni),<br>ng/m <sup>3</sup> | Arsenic (As),<br>ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP),<br>ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ),<br>µg/m <sup>3</sup> |
|--|------------------|-------------|----------------------------------|-----------------------------------|------------------------------------|---|--|--|
| Reference Method   |                  |             | IS 5182 (Part 22): 2004(RA 2014) | IS 5182 (Part 26): 2020           | GEMS /SOP/87                       | IS 5182 (Part XII) 2006(RA 2017)            | GEMS/SOP/86                              | IS 5182 (Part XI) 2006(RA 2017)                                |
| Date of Sampling   | Date of Sampling | Sample Code | Result                           | Result                            | Result                             | Result                                      | Result                                   | Result   |
| 08.08.2025   | 09.08.2025       | 3661        | 0.12                             | <0.1                              | <0.5                               | <0.5  | 0.10                                     | <1.0   |
| 09.08.2025   | 10.08.2025       | 3729        | 0.10                             | <0.1                              | <0.5                               | <0.5  | 0.12                                     | <1.0   |
| 11.08.2025   | 12.08.2025       | 3781        | 0.16                             | <0.1                              | <0.5                               | <0.5  | 0.10                                     | <1.0   |
| 12.08.2025   | 13.08.2025       | 3815        | 0.18                             | <0.1                              | <0.5                               | <0.5  | 0.12                                     | <1.0   |
| 22.08.2025   | 23.08.2025       | 4223        | 0.12                             | <0.1                              | <0.5                               | <0.5  | 0.14                                     | <1.0   |
| 23.08.2025   | 24.08.2025       | 4267        | 0.12                             | <0.1                              | <0.5                               | <0.5  | 0.12                                     | <1.0   |
| 25.08.2025   | 26.08.2025       | 4308        | 0.16                             | <0.1                              | <0.5                               | <0.5  | 0.14                                     | <1.0   |
| 26.08.2025   | 27.08.2025       | 4330        | 0.14                             | <0.1                              | <0.5                               | <0.5  | 0.12                                     | <1.0   |
| Average  |                  |             | 0.14                             | <0.1                              | <0.5                               | <0.5  | 0.12                                     | <1.0   |
| Limits for Industrial , Residential, Rural and other Areas |                  |             | 1.0                              | 20                                | 6                                  | 1   | 4  | 5  |
|  |                  |             | 24 Hrs                           | Annual                            | Annual                             | Annual                                      | 1 Hr                                     | Annual   |

Note : \* Parameters monitored for period of 1 Hrs

INFERENCE As per NAAQMS Standards (2009),  
Report Status: - Measured Values for the above parameters are within the limit.

**\*\*End of the Report\*\***

*Brunda.B*  
Analysed By  
Brunda.B  
Chemist

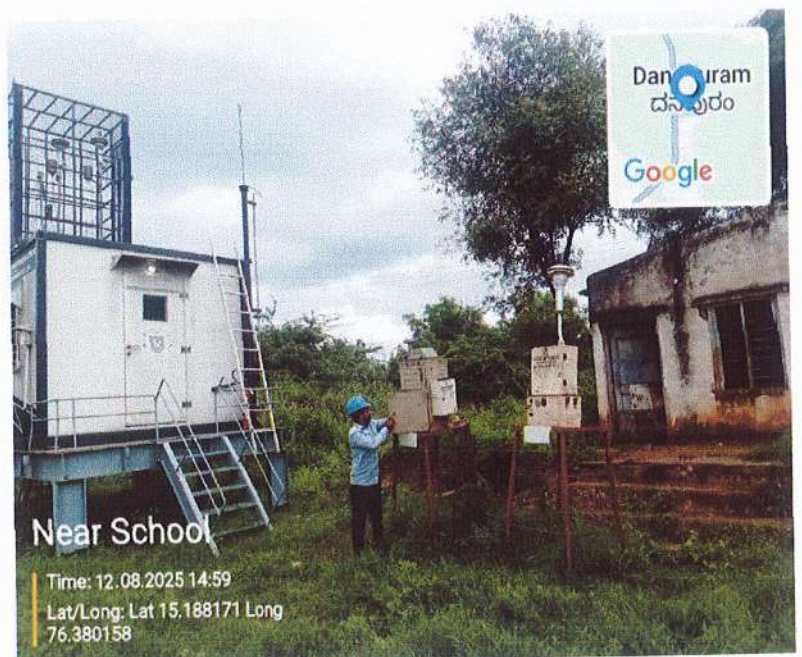
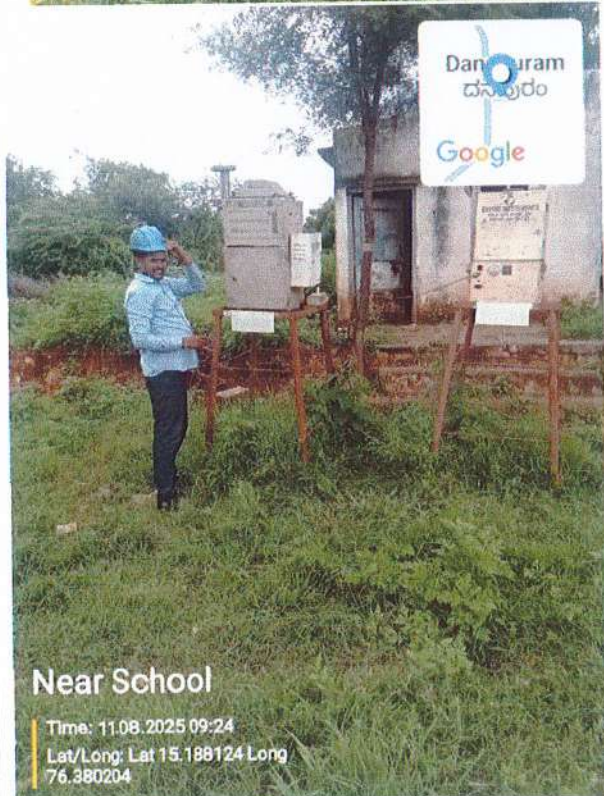
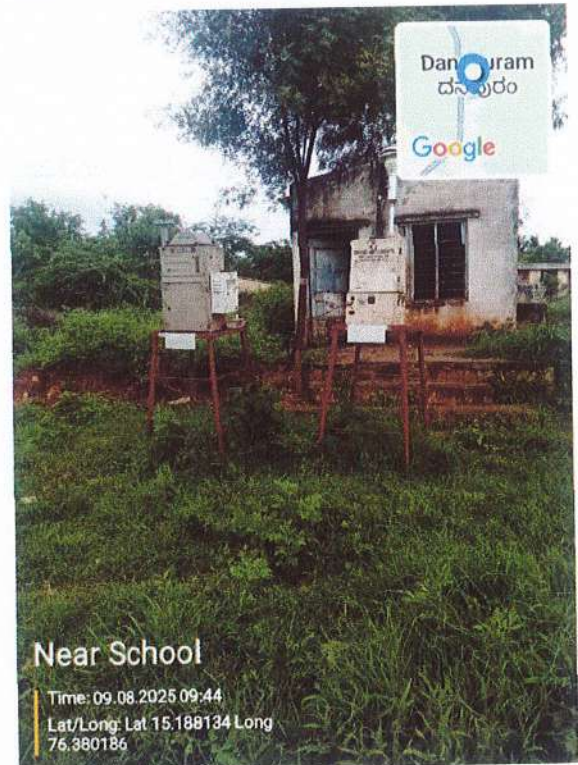
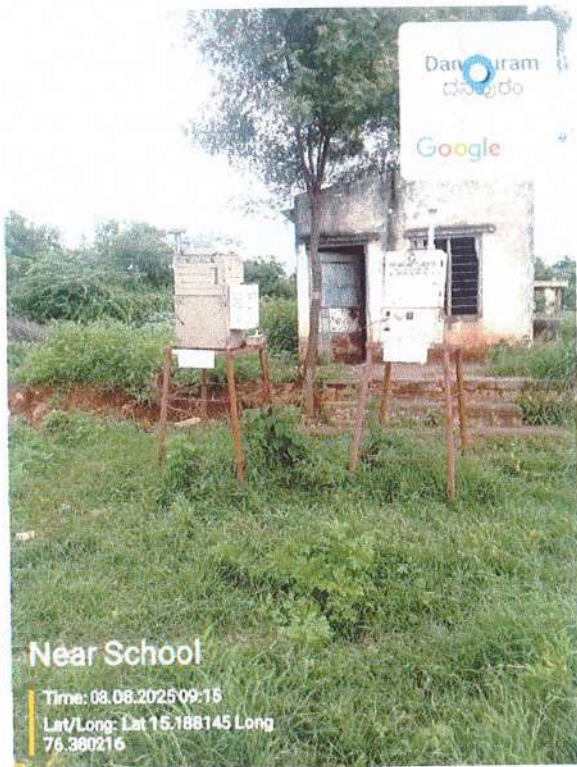
*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



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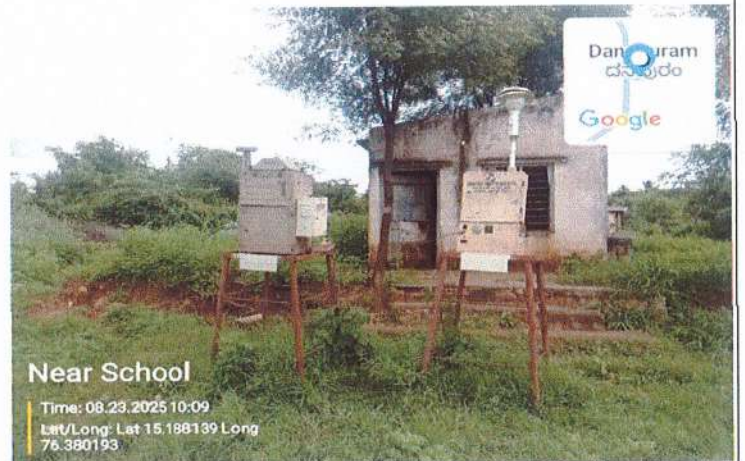
## AMBIENT AIR QUALITY MONITORING STATION

Location : A1-Near Existing AAQMS 01 (SMIORE School)



## AMBIENT AIR QUALITY MONITORING STATION

Location : A1-Near Existing AAQMS 01 (SMIORE School)





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TC-16180

ANNEXURE-02  
GEMS-LD/TF/11/01

### ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

|                                 |   |
|---------------------------------|---|
| Name of the Industry            | M/s. The Sandur Manganese & Iron Ores Ltd.<br>(Metal & Ferro Alloys Plant),<br>Vyasanakere, Hanumanahalli Village,<br>Hospet Taluk, Vijayanagara Dist , |
| Customer Reference              | : Workorder No.4200011817 Dated:20.08.2025  |
| Sample collected by             | : Global Environment & Mining Services LLP  |
| Discipline                      | : Chemical  |
| Group                           | : Atmospheric Pollution   |
| Sample Type                     | : Ambient Air Quality Monitoring  |
| Particulars of Sample Collected | : Respirable Dust Sampler, FPS Sampler  |
| Month                           | : AUGUST-2025   |
| Location                        | : A2 - Existing Water Reservoir (Near WTP Plant)  |
| Duration of Monitoring          | : 24 Hour   |
| Report Issued Date              | : 03.09.2025  |
| Report Number                   | : ULR-TC1618025000001907F   |

#### RESULTS

| Parameters  |                         |             | PM <sub>10</sub><br>[µg/m <sup>3</sup> ] | PM <sub>2.5</sub><br>[µg/m <sup>3</sup> ]  | SO <sub>2</sub><br>[µg/m <sup>3</sup> ]    | NO <sub>2</sub><br>[µg/m <sup>3</sup> ]    | Ozone*<br>(O <sub>3</sub> ),<br>µg/m <sup>3</sup> | Ammonia<br>(NH <sub>3</sub> )<br>µg/m <sup>3</sup> |
|---|-------------------------|-------------|--|--|--|--|---|--|
| Reference Method  |                         |             | IS:5182: 2006<br>(Part-23)<br>(RF-2017)  | IS 5182<br>(Part 24):<br>2019<br>(RF-2024) | IS:5182:<br>2001<br>(Part-2)<br>Sec 1:2023 | IS :5182:<br>(Part-6)<br>2006<br>(RF-2017) | IS 5182<br>(Part 9): 1974                         | IS 5182<br>(Part 25)<br>2018                       |
| Date of Sampling  | Date of Sample Received | Sample Code | Result                                   | Result                                     | Result                                     | Result                                     | Result  | Result   |
| 08.08.2025  | 09.08.2025              | 3662        | 42.31                                    | 9.74                                       | 8.45                                       | 11.12                                      | 10.12   | <20.0  |
| 09.08.2025  | 10.08.2025              | 3730        | 28.33                                    | 8.83                                       | 8.63                                       | 10.15                                      | 8.36  | <20.0  |
| 11.08.2025  | 12.08.2025              | 3782        | 39.29                                    | 9.54                                       | 7.75                                       | 9.36                                       | 12.24   | <20.0  |
| 12.08.2025  | 13.08.2025              | 3816        | 31.63                                    | 10.19                                      | 8.85                                       | 10.97                                      | 10.82   | <20.0  |
| 22.08.2025  | 23.08.2025              | 4224        | 47.24                                    | 15.97                                      | 8.51                                       | 12.84                                      | 16.20   | <20.0  |
| 23.08.2025  | 24.08.2025              | 4268        | 51.93                                    | 12.47                                      | 7.56                                       | 9.13                                       | 18.82   | <20.0  |
| 25.08.2025  | 26.08.2025              | 4309        | 57.06                                    | 15.67                                      | 8.30                                       | 12.28                                      | 21.34   | <20.0  |
| 26.08.2025  | 27.08.2025              | 4331        | 53.09                                    | 12.11                                      | 9.76                                       | 10.60                                      | 16.74   | <20.0  |
| Average   |                         |             | 43.86                                    | 11.82                                      | 8.48                                       | 10.80                                      | 14.33   | <20.0  |
| Limits for Industrial,<br>Residential, Rural, and other Areas |                         |             | 100                                      | 60   | 80   | 80   | 180   | 400  |
|   |                         |             | 24hrs                                    | 24hrs                                      | 24hrs                                      | 24hrs                                      | 1hrs*   | 24hrs  |

Note: \* Parameters monitored for period of 1 hrs,

|           |  |
|-----------|--|
| INFERENCE | As per NAAQMS Standards (2009),<br>Report Status: - Measured Values for the above parameters are within the limit. |
|-----------|--|

**\*\*End of the Report\*\***

*B. B.*  
Analysed By  
Brunda.B  
Chemist

*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



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- Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hospet jurisdiction only.
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ANNEXURE-02  
GEMS-LD/TF/11/01

### ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

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

Customer Reference : Workorder No.4200011817 Dated:20.08.2025

Sample collected by : Global Environment & Mining Services LLP

Discipline : Chemical

Group : Atmospheric Pollution

Sample Type : Ambient Air Quality Monitoring

Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler

Month : **AUGUST-2025**

Location : **A2 - Existing Water Reservoir (Near WTP Plant)**

Report Issued Date : **03.09.2025**

Report Number : **GEMS/SMIORE/2025-26/1907**

| Parameters  |                  |             | Lead (Pb),<br>µg/m <sup>3</sup>  | Nickel (Ni),<br>ng/m <sup>3</sup> | Arsenic (As),<br>ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP),<br>ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ),<br>µg/m <sup>3</sup> |
|---|------------------|-------------|----------------------------------|-----------------------------------|------------------------------------|---|--|--|
| Reference Method  |                  |             | IS 5182 (Part 22): 2004(RA 2014) | IS 5182 (Part 26): 2020           | GEMS /SOP/87                       | IS 5182 (Part XII) 2006(RA 2017)            | GEMS/SOP/86                              | IS 5182 (Part XI) 2006(RA 2017)                                |
| Date of Sampling  | Date of Sampling | Sample Code | Result                           | Result                            | Result                             | Result                                      | Result                                   | Result   |
| 08.08.2025  | 09.08.2025       | 3662        | 0.16                             | <0.1                              | <0.5                               | <0.5  | 0.32                                     | <1.0   |
| 09.08.2025  | 10.08.2025       | 3730        | 0.12                             | <0.1                              | <0.5                               | <0.5  | 0.26                                     | <1.0   |
| 11.08.2025  | 12.08.2025       | 3782        | 0.18                             | <0.1                              | <0.5                               | <0.5  | 0.18                                     | <1.0   |
| 12.08.2025  | 13.08.2025       | 3816        | 0.14                             | <0.1                              | <0.5                               | <0.5  | 0.22                                     | <1.0   |
| 22.08.2025  | 23.08.2025       | 4224        | 0.12                             | <0.1                              | <0.5                               | <0.5  | 0.16                                     | <1.0   |
| 23.08.2025  | 24.08.2025       | 4268        | 0.16                             | <0.1                              | <0.5                               | <0.5  | 0.34                                     | <1.0   |
| 25.08.2025  | 26.08.2025       | 4309        | 0.18                             | <0.1                              | <0.5                               | <0.5  | 0.28                                     | <1.0   |
| 26.08.2025  | 27.08.2025       | 4331        | 0.14                             | <0.1                              | <0.5                               | <0.5  | 0.32                                     | <1.0   |
| Average   |                  |             | 0.15                             | <0.1                              | <0.5                               | <0.5  | 0.26                                     | <1.0   |
| Limits for Industrial, Residential, Rural and other Areas |                  |             | 1.0                              | 20                                | 6                                  | 1   | 4  | 5  |
|   |                  |             | 24 Hrs                           | Annual                            | Annual                             | Annual                                      | 1 Hr                                     | Annual   |


Note : \* Parameters monitored for period of 1 Hrs

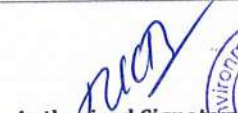
#### INFERENCE

As per NAAQMS Standards (2009),

Report Status: - Measured Values for the above parameters are within the limit.

**\*\*End of the Report\*\***

  
Analysed By  
Brunda.B  
Chemist

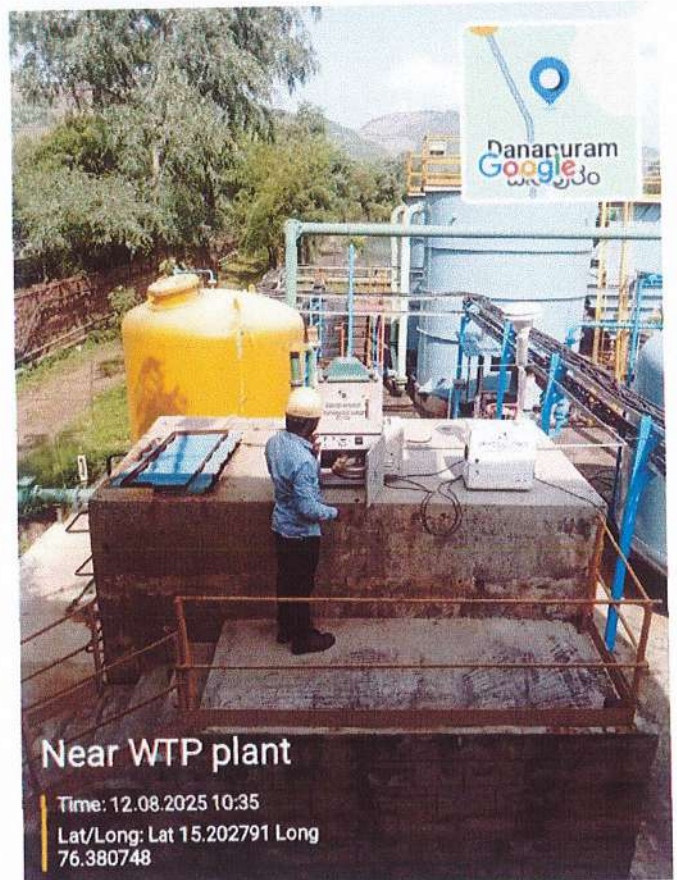
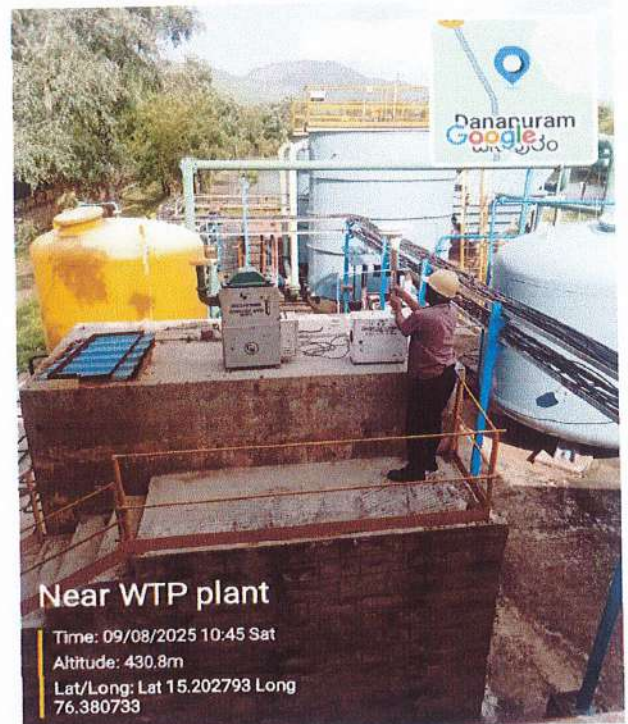
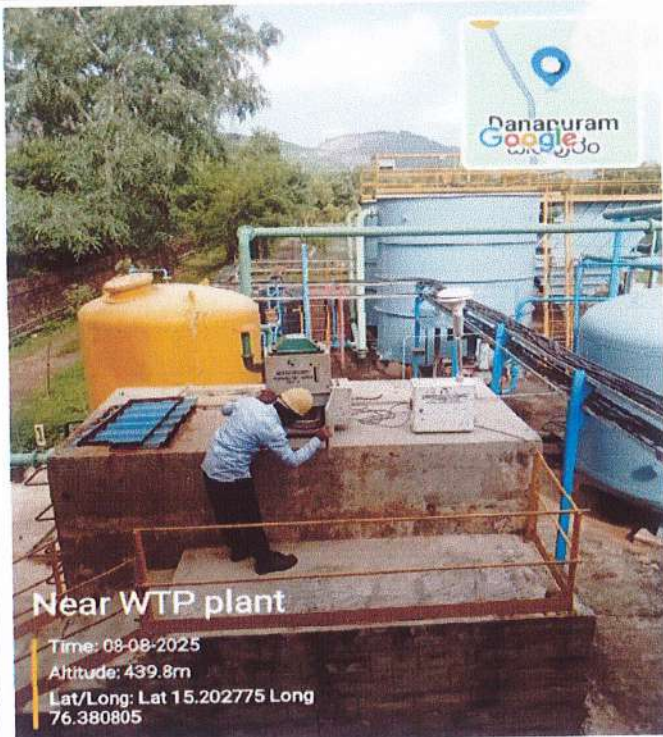
  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



- Recognized by Ministry of Environment, Forest and Climate Change for Laboratory
- Recognized by Government of Karnataka, Maharashtra, Goa for DGPS survey

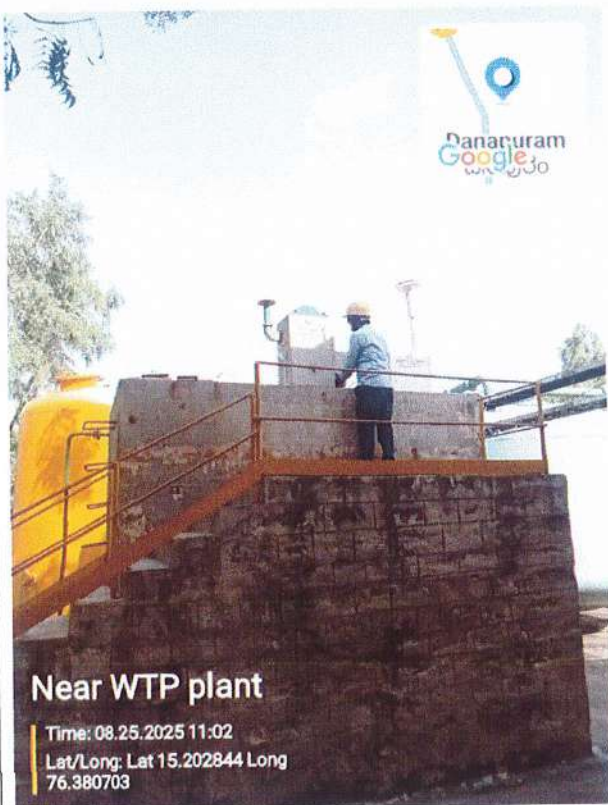
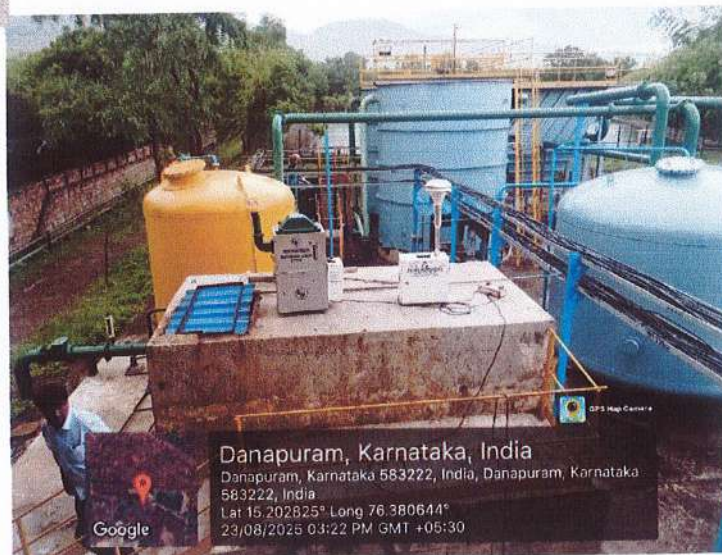
## AMBIENT AIR QUALITY MONITORING STATION

Location: A2 - Existing Water Reservoir (Near WTP Plant)



## AMBIENT AIR QUALITY MONITORING STATION

Location: A2 - Existing Water Reservoir (Near WTP Plant)





# GLOBAL ENVIRONMENT & MINING SERVICES LLP

(Consulting Engineers, Mine designers, Geologist & Surveyors)

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TC-16180

**ANNEXURE-03**  
**GEMS-LD/TF/11/01**

## ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

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

Customer Reference : Workorder No.4200011817 Dated:20.08.2025

Sample collected by : Global Environment & Mining Services LLP

Discipline : Chemical

Group : Atmospheric Pollution

Sample Type : Ambient Air Quality Monitoring

Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler

Month : **AUGUST-2025**

Location : **A3-Galemmanagudi Village**

Duration of Monitoring : 24 Hour

Report Issue Date : **03.09.2025**

Report Number : **ULR-TC1618025000001759F**

### **RESULTS**

| Parameters   |                         |             | PM <sub>10</sub><br>[µg/m <sup>3</sup> ] | PM <sub>2.5</sub><br>[µg/m <sup>3</sup> ]  | SO <sub>2</sub><br>[µg/m <sup>3</sup> ]    | NO <sub>2</sub><br>[µg/m <sup>3</sup> ]    | Ozone*<br>(O <sub>3</sub> ),<br>µg/m <sup>3</sup> | Ammonia<br>(NH <sub>3</sub> )<br>µg/m <sup>3</sup> |
|--|-------------------------|-------------|--|--|--|--|---|--|
| Reference Method   |                         |             | IS:5182: 2006<br>(Part-23)<br>(RF-2017)  | IS 5182<br>(Part 24):<br>2019<br>(RF-2024) | IS:5182:<br>2001<br>(Part-2)<br>Sec 1:2023 | IS :5182:<br>(Part-6)<br>2006<br>(RF-2017) | IS 5182<br>(Part 9): 1974                         | IS 5182<br>(Part 25)<br>2018                       |
| Date of Sampling   | Date of Sample Received | Sample Code | Result                                   | Result                                     | Result                                     | Result                                     | Result  | Result   |
| 04.08.2025   | 05.08.2025              | 3441        | 49.59                                    | 9.47                                       | 10.68                                      | 12.00                                      | 16.34   | <20.0  |
| 05.08.2025   | 06.08.2025              | 3524        | 37.59                                    | 8.46                                       | 14.02                                      | 16.45                                      | 0.00  | <20.0  |
| 11.08.2025   | 12.08.2025              | 3754        | 41.03                                    | 10.19                                      | 12.10                                      | 14.39                                      | 10.32   | <20.0  |
| 12.08.2025   | 13.08.2025              | 3808        | 34.71                                    | 8.81                                       | 13.50                                      | 16.51                                      | 18.06   | <20.0  |
| 18.08.2025   | 19.08.2025              | 4009        | 40.60                                    | 9.17                                       | 11.77                                      | 13.62                                      | 12.24   | <20.0  |
| 19.08.2025   | 20.08.2025              | 4068        | 41.06                                    | 10.69                                      | 07.89                                      | 16.94                                      | 0.00  | <20.0  |
| 28.08.2025   | 29.08.2025              | 4405        | 28.35                                    | 5.51                                       | 10.14                                      | 11.06                                      | 0.00  | <20.0  |
| 29.08.2025   | 30.08.2025              | 4426        | 33.40                                    | 6.17                                       | 9.16                                       | 11.10                                      | 15.12   | <20.0  |
| Average  |                         |             | 38.29                                    | 8.56                                       | 11.16                                      | 14.01                                      | 9.01  | <20.0  |
| Limits for Industrial, Residential, Rural, and other Areas |                         |             | 100                                      | 60   | 80   | 80   | 180   | 400  |
|  |                         |             | 24hrs                                    | 24hrs                                      | 24hrs                                      | 24hrs                                      | 1hrs*   | 24hrs  |

Note: \* Parameters monitored for period of 1 hrs.

|           |  |
|-----------|--|
| INFERENCE | As per NAAQMS Standards (2009),<br>Report Status: - Measured Values for the above parameters are within the limit. |
|-----------|--|

**\*\*End of the Report\*\***

*B. Q. B.*  
Analysed By  
Brunda.B  
Chemist

*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



### Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 7Days, Waste Water After Analysis Discard the Samples, Minerals 3 Months, Filter papers & Thimbles After analysis Discard 7 days.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
- Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
- Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
- Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



## GLOBAL ENVIRONMENT & MINING SERVICES LLP

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ANNEXURE-03  
GEMS-LD/TF/11/01

### ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

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

Customer Reference : Workorder No.4200011817 Dated:20.08.2025

Sample collected by : Global Environment & Mining Services LLP

Discipline : Chemical

Group : Atmospheric Pollution

Sample Type : Ambient Air Quality Monitoring

Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler

Month : **AUGUST-2025**

Location : **A3-Galemmanagudi Village**

Report Issued Date : **03.09.2025**

Report Number : **GEMS/SMIORE/2025-26/1759**

| Parameters  |                  |             | Lead (Pb),<br>µg/m <sup>3</sup>  | Nickel (Ni),<br>ng/m <sup>3</sup> | Arsenic (As),<br>ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP),<br>ng/m <sup>3</sup> | Carbon Monoxide*<br>(CO), mg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ),<br>µg/m <sup>3</sup> |
|---|------------------|-------------|----------------------------------|-----------------------------------|------------------------------------|---|---|--|
| Reference Method  |                  |             | IS 5182 (Part 22): 2004(RA 2014) | IS 5182 (Part 26): 2020           | GEMS /SOP/87                       | IS 5182 (Part XII) 2006(RA 2017)            | GEMS/SOP/86                                 | IS 5182 (Part XI) 2006(RA 2017)                                |
| Date of Sampling  | Date of Sampling | Sample Code | Result                           | Result                            | Result                             | Result                                      | Result                                      | Result   |
| 04.08.2025  | 05.08.2025       | 3441        | 0.16                             | <0.1                              | <0.5                               | <0.5  | 0.14  | <1.0   |
| 05.08.2025  | 06.08.2025       | 3524        | 0.20                             | <0.1                              | <0.5                               | <0.5  | 0.10  | <1.0   |
| 11.08.2025  | 12.08.2025       | 3754        | 0.14                             | <0.1                              | <0.5                               | <0.5  | 0.12  | <1.0   |
| 12.08.2025  | 13.08.2025       | 3808        | 0.12                             | <0.1                              | <0.5                               | <0.5  | <0.01                                       | <1.0   |
| 18.08.2025  | 19.08.2025       | 4009        | 0.16                             | <0.1                              | <0.5                               | <0.5  | 0.10  | <1.0   |
| 19.08.2025  | 20.08.2025       | 4068        | 0.10                             | <0.1                              | <0.5                               | <0.5  | <0.01                                       | <1.0   |
| 28.08.2025  | 29.08.2025       | 4405        | 0.10                             | <0.1                              | <0.5                               | <0.5  | 0.12  | <1.0   |
| 29.08.2025  | 30.08.2025       | 4426        | 0.14                             | <0.1                              | <0.5                               | <0.5  | <0.01                                       | <1.0   |
| Average   |                  |             | 0.14                             | <0.1                              | <0.5                               | <0.5  | 0.12  | <1.0   |
| Limits for Industrial , Residential, Rural, and other Areas |                  |             | 1.0                              | 20                                | 6                                  | 1   | 4   | 5  |
|   |                  |             | 24 Hrs                           | Annual                            | Annual                             | Annual                                      | 1 Hr  | Annual   |

Note: \* Parameters monitored for period of 1 Hrs

#### INFERENCE

As per NAAQMS Standards (2009),

Report Status: - Measured Values for the above parameters are within the limit.

**\*\*End of the Report\*\***

*Brunda.B*  
Analysed By  
Brunda.B  
Chemist

*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



- Recognized by Ministry of Environment, Forest and Climate Change for Laboratory
- Recognized by Government of Karnataka, Maharashtra, Goa for DGPS survey

## AMBIENT AIR QUALITY MONITORING STATION

Location: A3-Galemmanagudi

Address: CD Yellappa S/o Dasappa Galemmanagudi Village near welcome board Hanumanahalli post  
Tq: Hospet Di: Vijayanagara



## AMBIENT AIR QUALITY MONITORING STATION

**Location:** Galemmanagudi

**Address:** CD Yellappa S/o Dasappa Galemmanagudi Village near welcome board Hanumahalli post

**Tq:** Hospet Di: Vijayanagara





## GLOBAL ENVIRONMENT & MINING SERVICES LLP

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TC-16180

ANNEXURE-04  
GEMS-LD/TF/11/01

### ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

|                                 |  |
|---------------------------------|--|
| Name of the Industry            | M/s. The Sandur Manganese & Iron Ores Ltd. |
| Customer Reference              | (Metal & Ferro Alloys Plant),              |
| Sample collected by             | Vyasanakere, Hanumanahalli Village,        |
| Discipline                      | Hospet Taluk, Vijayanagara Dist ,          |
| Group                           | Workorder No.4200011817 Dated:20.08.2025   |
| Sample Type                     | Global Environment & Mining Services LLP   |
| Particulars of Sample Collected | Chemical                                   |
| Month                           | Atmospheric Pollution                      |
| Location                        | Ambient Air Quality Monitoring             |
| Duration of Monitoring          | Respirable Dust Sampler, FPS Sampler       |
| Report Issue Date               | AUGUST-2025                                |
| Report Number                   | A4 - Near Plant Railway Siding             |
|                                 | 24 Hour                                    |
|                                 | 03.09.2025                                 |
|                                 | ULR-TC1618025000001909F                    |

#### RESULTS

| Parameters  |                         |             | PM <sub>10</sub><br>[µg/m <sup>3</sup> ] | PM <sub>2.5</sub><br>[µg/m <sup>3</sup> ]  | SO <sub>2</sub><br>[µg/m <sup>3</sup> ]    | NO <sub>2</sub><br>[µg/m <sup>3</sup> ]    | Ozone*<br>(O <sub>3</sub> ),<br>µg/m <sup>3</sup> | Ammonia<br>(NH <sub>3</sub> )<br>µg/m <sup>3</sup> |
|---|-------------------------|-------------|--|--|--|--|---|--|
| Reference Method  |                         |             | IS:5182: 2006<br>(Part-23)<br>(RF-2017)  | IS 5182<br>(Part 24):<br>2019<br>(RF-2024) | IS:5182:<br>2001<br>(Part-2)<br>Sec 1:2023 | IS :5182:<br>(Part-6)<br>2006<br>(RF-2017) | IS 5182<br>(Part 9): 1974                         | IS 5182<br>(Part 25)<br>2018                       |
| Date of Sampling  | Date of Sample Received | Sample Code | Result                                   | Result                                     | Result                                     | Result                                     | Result  | Result   |
| 08.08.2025  | 09.08.2025              | 3664        | 38.96                                    | 7.57                                       | 8.61                                       | 10.36                                      | 13.52   | <20.0  |
| 09.08.2025  | 10.08.2025              | 3732        | 30.33                                    | 6.91                                       | 10.33                                      | 11.24                                      | 10.68   | <20.0  |
| 11.08.2025  | 12.08.2025              | 3784        | 43.33                                    | 9.50                                       | 8.75                                       | 10.72                                      | 18.12   | <20.0  |
| 12.08.2025  | 13.08.2025              | 3818        | 41.55                                    | 14.00                                      | 10.10                                      | 13.20                                      | 23.64   | <20.0  |
| 22.08.2025  | 23.08.2025              | 4226        | 43.03                                    | 12.64                                      | 7.69                                       | 10.86                                      | 21.12   | <20.0  |
| 23.08.2025  | 24.08.2025              | 4270        | 59.31                                    | 16.02                                      | 11.51                                      | 11.65                                      | 20.38   | <20.0  |
| 25.08.2025  | 26.08.2025              | 4311        | 50.45                                    | 18.48                                      | 9.18                                       | 10.03                                      | 16.28   | <20.0  |
| 26.08.2025  | 27.08.2025              | 4333        | 55.98                                    | 17.43                                      | 9.96                                       | 11.21                                      | 13.16   | <20.0  |
| Average   |                         |             | 45.37                                    | 12.82                                      | 9.52                                       | 11.16                                      | 17.11   | <20.0  |
| Limits for Industrial,<br>Residential, Rural, and other Areas |                         |             | 100                                      | 60   | 80   | 80   | 180   | 400  |
|   |                         |             | 24hrs                                    | 24hrs                                      | 24hrs                                      | 24hrs                                      | 1hrs*   | 24hrs  |

Note: \* Parameters monitored for period of 1 hrs

|           |  |
|-----------|--|
| INFERENCE | As per NAAQMS Standards (2009),<br>Report Status: - Measured Values for the above parameters are within the limit. |
|-----------|--|

**\*\*End of the Report\*\***

*B. S. B.*  
Analysed By  
Brunda.B  
Chemist

*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



#### Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 7 days, Waste Water After Analysis Discard the Samples, Minerals 3 Months, Filter papers & Thimbles After analysis Discard 7 days.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
- Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
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## GLOBAL ENVIRONMENT & MINING SERVICES LLP

(Consulting Engineers, Mine designers, Geologist & Surveyors)

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ANNEXURE-04  
GEMS-LD/TF/11/01

### ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

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

Customer Reference : Workorder No.4200011817 Dated:20.08.2025

Sample collected by : Global Environment & Mining Services LLP

Discipline : Chemical

Group : Atmospheric Pollution

Sample Type : Ambient Air Quality Monitoring

Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler

Month : **AUGUST-2025**

Location : **A4 - Near Plant Railway Siding**

Report Issued Date : **03.09.2025**

Report Number : **GEMS/SMIORE/2025-26/1909**

| Parameters  |                     |                | Lead (Pb),<br>µg/m <sup>3</sup>           | Nickel (Ni),<br>ng/m <sup>3</sup> | Arsenic<br>(As),<br>ng/m <sup>3</sup> | Benzo(a)<br>Pyrene<br>(BaP),<br>ng/m <sup>3</sup> | Carbon<br>Monoxide*<br>(CO), mg/m <sup>3</sup> | Benzene<br>(C <sub>6</sub> H <sub>6</sub> ),<br>µg/m <sup>3</sup> |
|---|---------------------|----------------|---|-----------------------------------|---------------------------------------|---|--|---|
| Reference Method  |                     |                | IS 5182<br>(Part 22):<br>2004(RA<br>2014) | IS 5182<br>(Part 26):<br>2020     | GEMS<br>/SOP/87                       | IS 5182<br>(Part XII)<br>2006(RA<br>2017)         | GEMS/SOP/86                                    | IS 5182<br>(Part XI)<br>2006(RA<br>2017)                          |
| Date of<br>Sampling   | Date of<br>Sampling | Sample<br>Code | Result                                    | Result                            | Result                                | Result  | Result   | Result  |
| 08.08.2025  | 09.08.2025          | 3664           | 0.28                                      | <0.1                              | <0.5                                  | <0.5  | 0.22   | <1.0  |
| 09.08.2025  | 10.08.2025          | 3732           | 0.16                                      | <0.1                              | <0.5                                  | <0.5  | 0.34   | <1.0  |
| 11.08.2025  | 12.08.2025          | 3784           | 0.20                                      | <0.1                              | <0.5                                  | <0.5  | 0.28   | <1.0  |
| 12.08.2025  | 13.08.2025          | 3818           | 0.14                                      | <0.1                              | <0.5                                  | <0.5  | 0.26   | <1.0  |
| 22.08.2025  | 23.08.2025          | 4226           | 0.22                                      | <0.1                              | <0.5                                  | <0.5  | 0.30   | <1.0  |
| 23.08.2025  | 24.08.2025          | 4270           | 0.16                                      | <0.1                              | <0.5                                  | <0.5  | 0.32   | <1.0  |
| 25.08.2025  | 26.08.2025          | 4311           | 0.26                                      | <0.1                              | <0.5                                  | <0.5  | 0.24   | <1.0  |
| 26.08.2025  | 27.08.2025          | 4333           | 0.20                                      | <0.1                              | <0.5                                  | <0.5  | 0.18   | <1.0  |
| Average   |                     |                | 0.20                                      | <0.1                              | <0.5                                  | <0.5  | 0.27   | <1.0  |
| Limits for Industrial ,<br>Residential, Rural and other Areas |                     |                | 1.0                                       | 20                                | 6                                     | 1   | 4  | 5   |
|   |                     |                | 24 Hrs                                    | Annual                            | Annual                                | Annual  | 1 Hr   | Annual  |

Note : \* Parameters monitored for period of 1 Hrs

INFERENCE

As per NAAQMS Standards (2009),

Report Status: - Measured Values for the above parameters are within the limit.

**\*\*End of the Report\*\***

*Brunda.B*  
Analysed By  
Brunda.B  
Chemist

*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



- Recognized by Ministry of Environment, Forest and Climate Change for Laboratory
- Recognized by Government of Karnataka, Maharashtra, Goa for DGPS survey

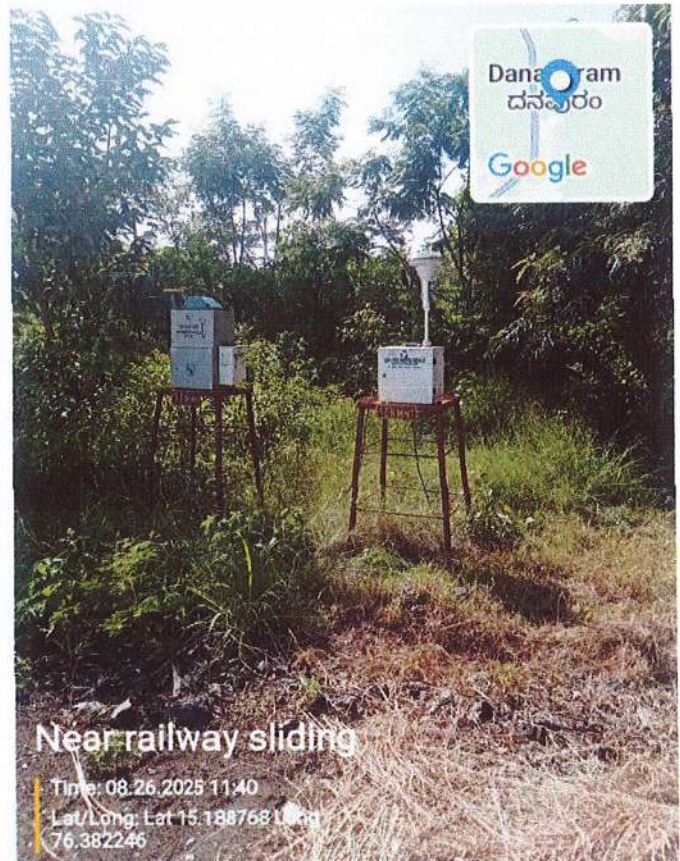
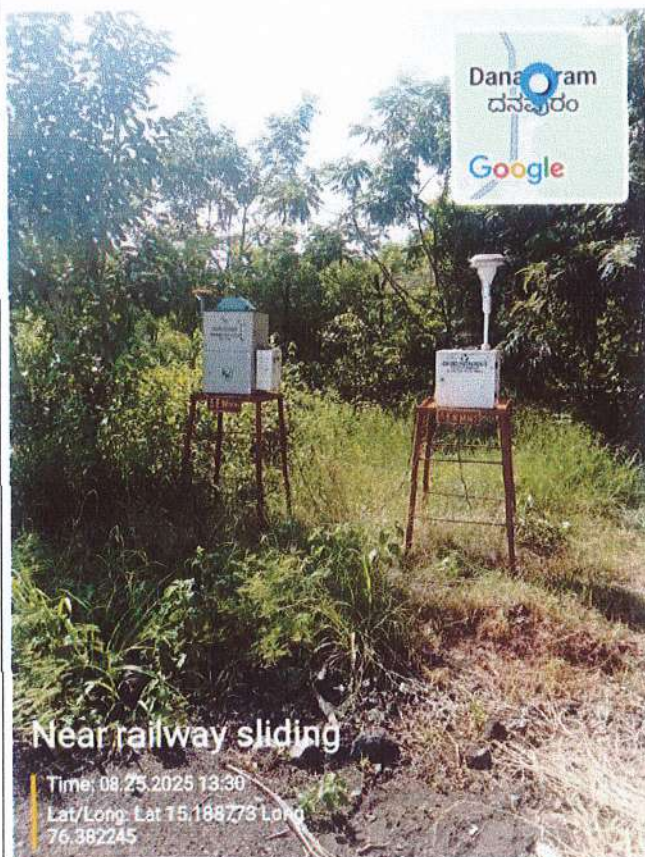
## AMBIENT AIR QUALITY MONITORING STATION

Location: A4 - Near Plant Railway Siding



## AMBIENT AIR QUALITY MONITORING STATION

Location: Location: A4 - Near Plant Railway Siding





GEMS



NABET

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(Consulting Engineers, Mine designers, Geologist &amp; Surveyors)

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TC-16180

**ANNEXURE-5  
GEMS-LD/TF/10/01****Analysis Report of Stack Emission**

|    |                                    |   |
|----|------------------------------------|---|
| 1  | Name of the Industry               | : M/s. The Sandur Manganese & Iron Ores Ltd.<br>(Metal & Ferro Alloys Plant),<br>Vyasnakere, Hanumanahalli Village,<br>Hospet Taluk, Vijayanagara Dist, |
| 2  | Customer Reference                 | : Workorder No.4200011817 Dated:20.08.2025  |
| 3  | Sample collected by                | : Global Environment & Mining Services LLP, Hosapete  |
| 4  | Particulars of sample collected    | : Stack Kit (Greentech Instruments)<br>Sl. No: Stack Monitoring Kit/ 114-DTG-2016   |
| 5  | Instrument Details                 | : Calibration Date: 25.04.2025<br>Calibration Due Date: 24.04.2026  |
| 6  | Discipline                         | : Chemical  |
| 7  | Group                              | : Atmospheric Pollution   |
| 8  | Sample Type                        | : Stack Monitoring  |
| 9  | Sampling Location                  | : <b>Stack Attached to Furnace - 3</b>  |
| 10 | Month of Sampling                  | : <b>AUGUST-2025</b>  |
| 11 | Date of Monitoring                 | : <b>28.08.2025</b>   |
| 12 | Date of Sample Received            | : 28.08.2025  |
| 13 | Sample Code                        | : 4379  |
| 14 | Date of Sample Analysis            | : 30.08.2025  |
| 15 | Date of Sample Analysis completion | : 30.08.2025  |
| 16 | Report Number                      | : <b>ULR-TC1618025000002247F</b>  |
| 17 | Report Issued Date                 | : <b>03.09.2025</b>   |

**Stack Details**

|   |   |       |
|---|---|-------|
| 1 | Fuel Used                                 | -     |
| 2 | Stack Height (mtr)                        | 35    |
| 3 | Stack Diameter (mtr)                      | 2.5   |
| 4 | Cross Sectional Area in meter square (m2) | 4.909 |

**Emission Details**

| Sl. No. | Parameters                       | Method                              | Unit                | Result | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|--------|-------------------|
| 1       | Ambient Temperature              | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 28     | -                 |
| 2       | Stack Temperature                | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 112    | -                 |
| 3       | Velocity of Fuel Gas             | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec               | 9.73   | -                 |
| 4       | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014)         | m <sup>3</sup> /hr  | 167424 | -                 |
| 5       | Gas flow rate at NTP             | IS-11255(Part 03) (RA 2014)         | Nm <sup>3</sup> /hr | 129215 | -                 |
| 6       | Particulate Matter               | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm <sup>3</sup>  | 86.00  | 150               |
| 7       | Sulphur Dioxide                  | IS: 11255 (Part 2): (RA 2014)       | mg/Nm <sup>3</sup>  | 24.86  | -                 |
| 8       | Nitrogen Dioxide                 | IS:11255 (Part7): 2005 (RA 2017)    | mg/Nm <sup>3</sup>  | 32.12  | -                 |
| 9       | Carbon Monoxide                  | GEMS/SOP/69                         | %                   | 0.12   | -                 |
| 10      | Oxygen (O <sub>2</sub> )         | GEMS/SOP/70                         | %                   | 12.72  | -                 |

Note: NS- Not Specified, RA: Reaffirmed, **INFERENCE:** The Measured Values are within the limits.**\*\*End of the Report\*\***

*Brunda.B*  
Analysed By  
Brunda.B  
Chemist

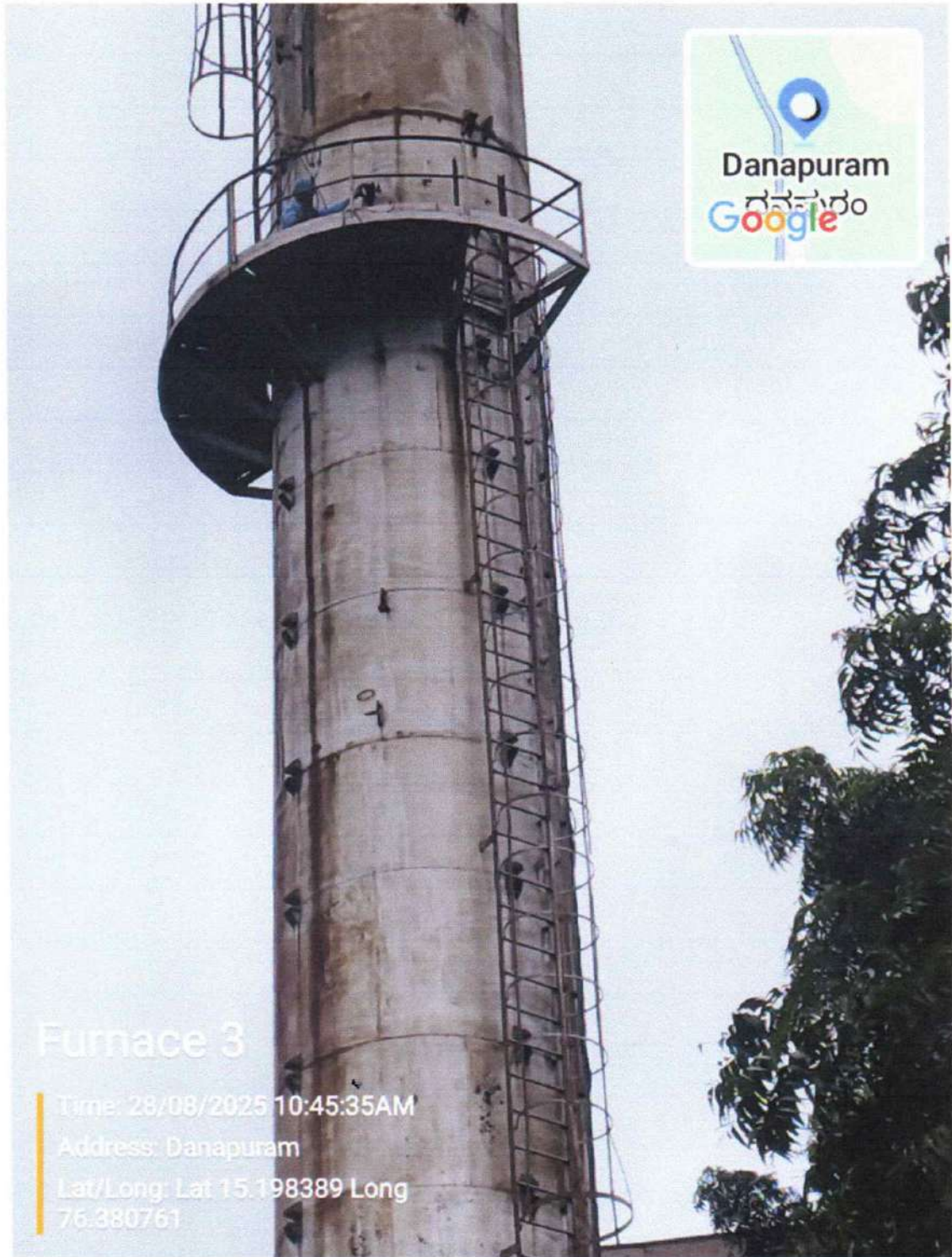
*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager

**Note:**

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## STACK EMISSION

Location: Location: Stack Attached to Furnace - 3



Furnace 3

Time: 28/08/2025 10:45:35AM

Address: Danapuram

Lat/Long: Lat 15.198389 Long  
76.380761



# GLOBAL ENVIRONMENT & MINING SERVICES LLP

(Consulting Engineers, Mine designers, Geologist & Surveyors)

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TC-16180

ANNEXURE-6  
GEMS-LD/TF/10/01

## Analysis Report of Stack Emission

|    |                                    |  |
|----|------------------------------------|--|
| 1  | Name of the Industry               | : M/s. The Sandur Manganese & Iron Ores Ltd.<br>(Metal & Ferro Alloys Plant),<br>Vyasnakere, Hanumanahalli Village,<br>Hospet Taluk, Vijayanagara Dist , |
| 2  | Customer Reference                 | : Workorder No.4200011817 Dated:20.08.2025   |
| 3  | Sample collected by                | : Global Environment & Mining Services LLP, Hosapete   |
| 4  | Particulars of sample collected    | : Stack Kit (Greentech Instruments)<br>Sl. No: Stack Monitoring Kit/ 114-DTG-2016  |
| 5  | Instrument Details                 | : Calibration Date: 25.04.2025<br>Calibration Due Date: 24.04.2026   |
| 6  | Discipline                         | : Chemical   |
| 7  | Group                              | : Atmospheric Pollution  |
| 8  | Sample Type                        | : Stack Monitoring   |
| 9  | Sampling Location                  | : Stack Attached to Furnace - 5  |
| 10 | Month of Sampling                  | : AUGUST-2025  |
| 11 | Date of Monitoring                 | : 28.08.2025   |
| 12 | Date of Sample Received            | : 28.08.2025   |
| 13 | Sample Code                        | : 4380   |
| 14 | Date of Sample Analysis            | : 30.08.2025   |
| 15 | Date of Sample Analysis completion | : 30.08.2025   |
| 16 | Report Number                      | : ULR-TC1618025000002248F  |
| 17 | Report Issued Date                 | : 03.09.2025   |

### Stack Details

|   |   |       |
|---|---|-------|
| 1 | Fuel Used                                 | -     |
| 2 | Stack Height (mtr)                        | 35    |
| 3 | Stack Diameter (mtr)                      | 3.0   |
| 4 | Cross Sectional Area in meter square (m2) | 7.071 |

### Emission Details

| Sl. No. | Parameters                       | Method                              | Unit                | Result | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|--------|-------------------|
| 1       | Ambient Temperature              | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 27     | -                 |
| 2       | Stack Temperature                | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 109    | -                 |
| 3       | Velocity of Fuel Gas             | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec               | 9.89   | -                 |
| 4       | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014)         | m <sup>3</sup> /hr  | 251807 | -                 |
| 5       | Gas flow rate at NTP             | IS-11255(Part 03) (RA 2014)         | Nm <sup>3</sup> /hr | 195971 | -                 |
| 6       | Particulate Matter               | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm <sup>3</sup>  | 90.52  | 150               |
| 7       | Sulphur Dioxide                  | IS: 11255 (Part 2): (RA 2014)       | mg/Nm <sup>3</sup>  | 20.62  | -                 |
| 8       | Nitrogen Dioxide                 | IS:11255 (Part7): 2005 (RA 2017)    | mg/Nm <sup>3</sup>  | 26.74  | -                 |
| 9       | Carbon Monoxide                  | GEMS/SOP/69                         | %                   | 0.24   | -                 |
| 10      | Oxygen (O <sub>2</sub> )         | GEMS/SOP/70                         | %                   | 16.72  | -                 |

Note: NS- Not Specified, RA: Reaffirmed, INFERENCE: The Measured Values are within the limits.

\*\*End of the Report\*\*

Analysed By  
Brunda.B  
Chemist

Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



#### Note:

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## STACK EMISSION

Location: Location: Stack Attached to Furnace - 5





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Website : www.gemslip.in



TC-16180

ANNEXURE-7  
GEMS-LD/TF/10/01

## Analysis Report of Stack Emission

|    |                                    |  |
|----|------------------------------------|--|
| 1  | Name of the Industry               | : M/s. The Sandur Manganese & Iron Ores Ltd.<br>(Metal & Ferro Alloys Plant),<br>Vyasanakere, Hanumanahalli Village,<br>Hospet Taluk, Vijayanagara Dist, |
| 2  | Customer Reference                 | : Workorder No.4200011817 Dated:20.08.2025   |
| 3  | Sample collected by                | : Global Environment & Mining Services LLP, Hosapete   |
| 4  | Particulars of sample collected    | : Stack Kit (Greentech Instruments)<br>Sl. No: Stack Monitoring Kit/ 114-DTG-2016  |
| 5  | Instrument Details                 | : Calibration Date: 25.04.2025<br>Calibration Due Date: 24.04.2026   |
| 6  | Discipline                         | : Chemical   |
| 7  | Group                              | : Atmospheric Pollution  |
| 8  | Sample Type                        | : Stack Monitoring   |
| 9  | Sampling Location                  | : Stack Attached to WHRB-01  |
| 10 | Month of Sampling                  | : AUGUST-2025  |
| 11 | Date of Monitoring                 | : 28.08.2025   |
| 12 | Date of Sample Received            | : 28.08.2025   |
| 13 | Sample Code                        | : 4378   |
| 14 | Date of Sample Analysis            | : 30.08.2025   |
| 15 | Date of Sample Analysis completion | : 30.08.2025   |
| 16 | Report Number                      | : ULR-TC1618025000002246F  |
| 17 | Report Issued Date                 | : 03.09.2025   |

### Stack Details

|   |   |       |
|---|---|-------|
| 1 | Fuel Used                                 | -     |
| 2 | Stack Height (mtr)                        | 60    |
| 3 | Stack Diameter (mtr)                      | 4.6   |
| 4 | Cross Sectional Area in meter square (m2) | 16.62 |

### Emission Details

| Sl. No. | Parameters                       | Method                              | Unit                | Result | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|--------|-------------------|
| 1       | Ambient Temperature              | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 28     | -                 |
| 2       | Stack Temperature                | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 158    | -                 |
| 3       | Velocity of Fuel Gas             | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec               | 6.63   | -                 |
| 4       | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014)         | m <sup>3</sup> /hr  | 204245 | -                 |
| 5       | Gas flow rate at NTP             | IS-11255(Part 03) (RA 2014)         | Nm <sup>3</sup> /hr | 140307 | -                 |
| 6       | Particulate Matter               | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm <sup>3</sup>  | 35.59  | 50                |
| 7       | Sulphur Dioxide                  | IS: 11255 (Part 2): (RA 2014)       | mg/Nm <sup>3</sup>  | 338.28 | 800               |
| 8       | Nitrogen Dioxide                 | IS:11255 (Part7): 2005 (RA 2017)    | mg/Nm <sup>3</sup>  | 148.12 | 500               |
| 9       | Carbon Monoxide                  | GEMS/SOP/69                         | %                   | 0.28   | Max1%             |
| 10      | Oxygen (O <sub>2</sub> )         | GEMS/SOP/70                         | %                   | 7.86   | -                 |

Note: NS- Not Specified, RA: Reaffirmed, INFERENCE: The Measured Values are within the limits.

\*\*End of the Report\*\*

Analysed By  
Brunda.B  
Chemist

Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager

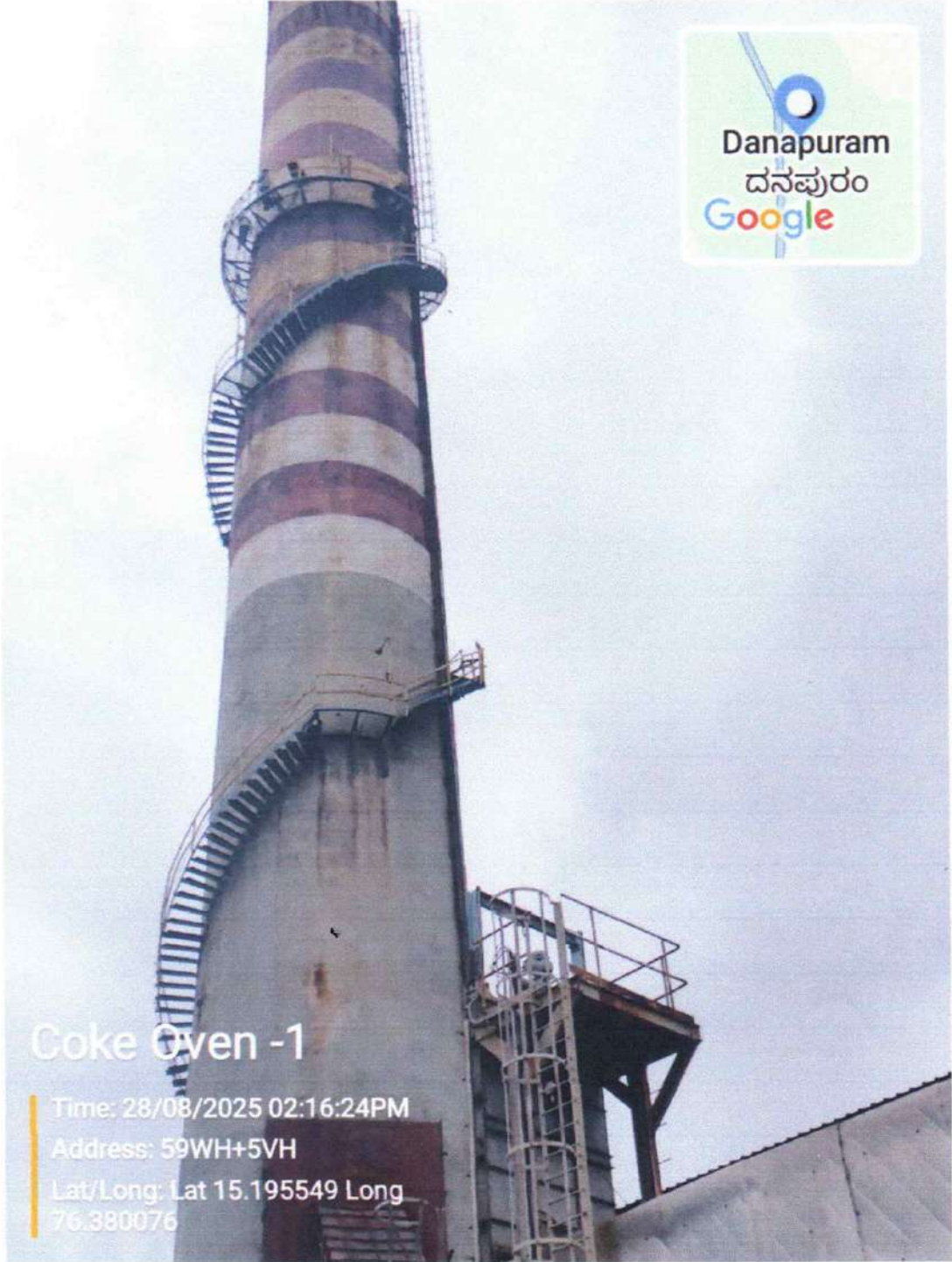


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## STACK EMISSION

Location: Location: Stack Attached to WHRB-01 (Coke Oven-1)





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e-mail : gems\_hpt@yahoo.com

Website : www.gemslip.in



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**ANNEXURE-8**  
**GEMS-LD/TF/10/01****Analysis Report of Stack Emission**

|    |                                    |  |
|----|------------------------------------|--|
| 1  | Name of the Industry               | : M/s. The Sandur Manganese & Iron Ores Ltd.<br>(Metal & Ferro Alloys Plant),<br>Vyasnakere, Hanumanahalli Village,<br>Hospet Taluk, Vijayanagara Dist , |
| 2  | Customer Reference                 | : Workorder No.4200011817 Dated:20.08.2025   |
| 3  | Sample collected by                | : Global Environment & Mining Services LLP, Hosapete   |
| 4  | Particulars of sample collected    | : Stack Kit (Greentech Instruments)<br>Sl. No: Stack Monitoring Kit/ 114-DTG-2016  |
| 5  | Instrument Details                 | : Calibration Date: 25.04.2025<br>Calibration Due Date: 24.04.2026   |
| 6  | Discipline                         | : Chemical   |
| 7  | Group                              | : Atmospheric Pollution  |
| 8  | Sample Type                        | : Stack Monitoring   |
| 9  | Sampling Location                  | : <b>Stack Attached to WHRB-02</b>   |
| 10 | Month of Sampling                  | : <b>AUGUST-2025</b>   |
| 11 | Date of Monitoring                 | : <b>28.08.2025</b>  |
| 12 | Date of Sample Received            | : -  |
| 13 | Sample Code                        | : -  |
| 14 | Date of Sample Analysis            | : -  |
| 15 | Date of Sample Analysis completion | : -  |
| 16 | Report Number                      | : -  |
| 17 | Report Issued Date                 | : <b>03.09.2025</b>  |

**Stack Details**

|   |   |       |
|---|---|-------|
| 1 | Fuel Used                                 | -     |
| 2 | Stack Height (mtr)                        | 60    |
| 3 | Stack Diameter (mtr)                      | 4.6   |
| 4 | Cross Sectional Area in meter square (m2) | 16.62 |

**Emission Details**

| Sl. No. | Parameters                       | Method                              | Unit                | Result   | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|----------|-------------------|
| 1       | Ambient Temperature              | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | Shutdown | -                 |
| 2       | Stack Temperature                | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  |          | -                 |
| 3       | Velocity of Fuel Gas             | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec               |          | -                 |
| 4       | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014)         | m <sup>3</sup> /hr  |          | -                 |
| 5       | Gas flow rate at NTP             | IS-11255(Part 03) (RA 2014)         | Nm <sup>3</sup> /hr |          | -                 |
| 6       | Particulate Matter               | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm <sup>3</sup>  |          | 50                |
| 7       | Sulphur Dioxide                  | IS: 11255 (Part 2): (RA 2014)       | mg/Nm <sup>3</sup>  |          | 800               |
| 8       | Nitrogen Dioxide                 | IS:11255 (Part7): 2005 (RA 2017)    | mg/Nm <sup>3</sup>  |          | 500               |
| 9       | Carbon Monoxide                  | GEMS/SOP/69                         | %                   |          | Max1%             |
| 10      | Oxygen (O <sub>2</sub> )         | GEMS/SOP/70                         | %                   |          | -                 |

Note: NS- Not Specified, RA: Reaffirmed, **INFERENCE:****\*\*End of the Report\*\***

*K. Ramakrishna Reddy*  
**Authorised Signatory**  
**K. Ramakrishna Reddy**  
**Technical Manager**

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TC-16180

**ANNEXURE-09**  
**GEMS-LD/TF/10/01****Analysis Report of Stack Emission**

- 1 Name of the Industry : **M/s. The Sandur Manganese & Iron Ores Ltd.**  
(Metal & Ferro Alloys Plant),  
Vyasnakere, Hanumanahalli Village,  
Hospet Taluk, Vijayanagara Dist,
- 2 Customer Reference : Workorder No.4200011817 Dated:20.08.2025
- 3 Sample collected by : Global Environment & Mining Services LLP, Hosapete
- 4 Particulars of sample collected : Stack Kit (Greentech Instruments)  
Sl. No: Stack Monitoring Kit/ **114-DTG-2016**
- 5 Instrument Details : Calibration Date: 25.04.2025  
Calibration Due Date: 24.04.2026
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Sampling Location : **Stack Attached to Coal Crushing**
- 10 Month of Sampling : **AUGUST-2025**
- 11 Date of Monitoring : 25.08.2025
- 12 Date of Sample Received : 25.08.2025
- 13 Sample Code : 4313
- 14 Date of Sample Analysis : 27.08.2025
- 15 Date of Sample Analysis completion : 27.08.2025
- 16 Report Number : **ULR-TC1618025000002216F**
- 17 Report Issued Date : **03.09.2025**

**Stack Details**

- 1 Fuel Used -
- 2 Stack Height (mtr) 15
- 3 Stack Diameter (mtr) 0.7
4. Cross Sectional Area in meter square (m2) 0.3850

**Emission Details**

| Sl. No. | Parameters                       | Method                              | Unit                | Result | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|--------|-------------------|
| 1       | Ambient Temperature              | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 30     | -                 |
| 2       | Stack Temperature                | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 34     | -                 |
| 3       | Velocity of Fuel Gas             | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec               | 7.33   | -                 |
| 4       | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014)         | m <sup>3</sup> /hr  | 10158  | -                 |
| 5       | Gas flow rate at NTP             | IS-11255(Part 03) (RA 2014)         | Nm <sup>3</sup> /hr | 9807   | -                 |
| 6       | Particulate Matter               | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm <sup>3</sup>  | 39.56  | 50                |

Note: NS- Not Specified, RA: Reaffirmed, **INFERENCE:** The Measured Values are within the limits.**\*\*End of the Report\*\***

**Analysed By**  
Brunda.B  
Chemist

**Authorised Signatory**  
K. Ramakrishna Reddy  
Technical Manager

**Note:**

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**STACK EMISSION**  
**Location: Stack Attached to Coal Crushing**





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TC-16180

ANNEXURE-10  
GEMS-LD/TF/10/01

## Analysis Report of Stack Emission

- 1 Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.  
(Metal & Ferro Alloys Plant),  
Vyasanakere, Hanumanahalli Village,  
Hospet Taluk, Vijayanagara Dist ,
- 2 Customer Reference : Workorder No.4200011817 Dated:20.08.2025
- 3 Sample collected by : Global Environment & Mining Services LLP, Hosapete
- 4 Particulars of sample collected : Stack Kit (Greentech Instruments)  
Sl. No: Stack Monitoring Kit/ 114-DTG-2016
- 5 Instrument Details : Calibration Date: 25.04.2025  
Calibration Due Date: 24.04.2026
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Sampling Location : Stack Attached to Coke Cutter
- 10 Month of Sampling : AUGUST-2025
- 11 Date of Monitoring : 25.08.2025
- 12 Date of Sample Received : 25.08.2025
- 13 Sample Code : 4312
- 14 Date of Sample Analysis : 27.08.2025
- 15 Date of Sample Analysis completion : 27.08.2025
- 16 Report Number : ULR-TC1618025000002215F
- 17 Report Issued Date : 03.09.2025

### Stack Details

- 1 Fuel Used -
- 2 Stack Height (mtr) 15
- 3 Stack Diameter (mtr) 0.7
4. Cross Sectional Area in meter square (m2) 0.3850

### Emission Details

| Sl. No. | Parameters                       | Method                              | Unit                | Result | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|--------|-------------------|
| 1       | Ambient Temperature              | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 29     | -                 |
| 2       | Stack Temperature                | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 32     | -                 |
| 3       | Velocity of Fuel Gas             | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec               | 6.88   | -                 |
| 4       | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014)         | m <sup>3</sup> /hr  | 9529   | -                 |
| 5       | Gas flow rate at NTP             | IS-11255(Part 03) (RA 2014)         | Nm <sup>3</sup> /hr | 9286   | -                 |
| 6       | Particulate Matter               | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm <sup>3</sup>  | 34.51  | 50                |

Note: NS- Not Specified, RA: Reaffirmed, INFERENCE: The Measured Values are within the limits.

**\*\*End of the Report\*\***

*Brunda B*  
Analysed By  
Brunda.B  
Chemist

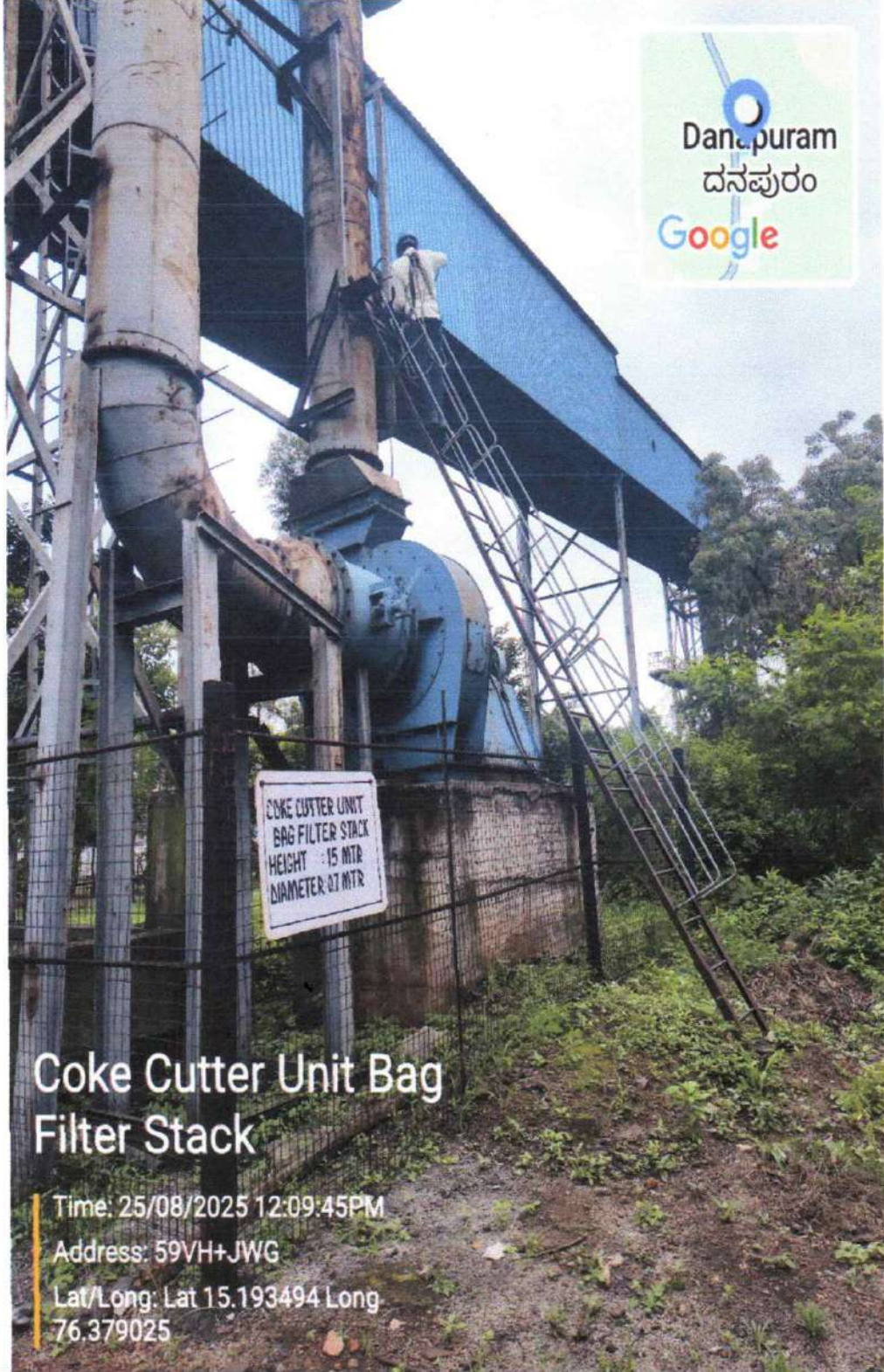
*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



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**STACK EMISSION**  
**Location: Stack Attached to Coke Cutter**





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Website : www.gemslip.in



TC-16180

**ANNEXURE-11**  
**GEMS-LD/TF/10/01**

## Analysis Report of Stack Emission

|    |                                    |   |
|----|------------------------------------|---|
| 1  | Name of the Industry               | : M/s. The Sandur Manganese & Iron Ores Ltd.<br>(Metal & Ferro Alloys Plant),<br>Vyasanakere, Hanumanahalli Village,<br>Hospet Taluk, Vijayanagara Dist , |
| 2  | Customer Reference                 | : Workorder No.4200011817 Dated:20.08.2025  |
| 3  | Sample collected by                | : Global Environment & Mining Services LLP, Hosapete  |
| 4  | Particulars of sample collected    | : Stack Kit (Greentech Instruments)<br>Sl. No: Stack Monitoring Kit/ <b>114-DTG-2016</b>  |
| 5  | Instrument Details                 | : Calibration Date: 25.04.2025<br>Calibration Due Date: 24.04.2026  |
| 6  | Discipline                         | : Chemical  |
| 7  | Group                              | : Atmospheric Pollution   |
| 8  | Sample Type                        | : Stack Monitoring  |
| 9  | Sampling Location                  | : <b>Stack Attached to Coke Screening &amp; Store</b>   |
| 10 | Month of Sampling                  | : <b>AUGUST-2025</b>  |
| 11 | Date of Monitoring                 | : 25.08.2025  |
| 12 | Date of Sample Received            | : 25.08.2025  |
| 13 | Sample Code                        | : 4314  |
| 14 | Date of Sample Analysis            | : 27.08.2025  |
| 15 | Date of Sample Analysis completion | : 27.08.2025  |
| 16 | Report Number                      | : <b>ULR-TC1618025000002217F</b>  |
| 17 | Report Issued Date                 | : 03.09.2025  |

### Stack Details

|   |   |        |
|---|---|--------|
| 1 | Fuel Used                                 | -      |
| 2 | Stack Height (mtr)                        | 15     |
| 3 | Stack Diameter (mtr)                      | 0.7    |
| 4 | Cross Sectional Area in meter square (m2) | 0.3850 |

### Emission Details

| Sl. No. | Parameters                       | Method                              | Unit                | Result | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|--------|-------------------|
| 1       | Ambient Temperature              | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 29     | -                 |
| 2       | Stack Temperature                | IS: 11255 (Part 1) - 1985 (RA 2014) | °C                  | 35     | -                 |
| 3       | Velocity of Fuel Gas             | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec               | 6.54   | -                 |
| 4       | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014)         | m <sup>3</sup> /hr  | 9065   | -                 |
| 5       | Gas flow rate at NTP             | IS-11255(Part 03) (RA 2014)         | Nm <sup>3</sup> /hr | 8748   | -                 |
| 6       | Particulate Matter               | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm <sup>3</sup>  | 33.37  | 50                |

Note: NS- Not Specified, RA: Reaffirmed, INFERENCE: The Measured Values are within the limits.

**\*\*End of the Report\*\***

*B. Q.B.*  
Analysed By  
Brunda.B  
Chemist

*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager

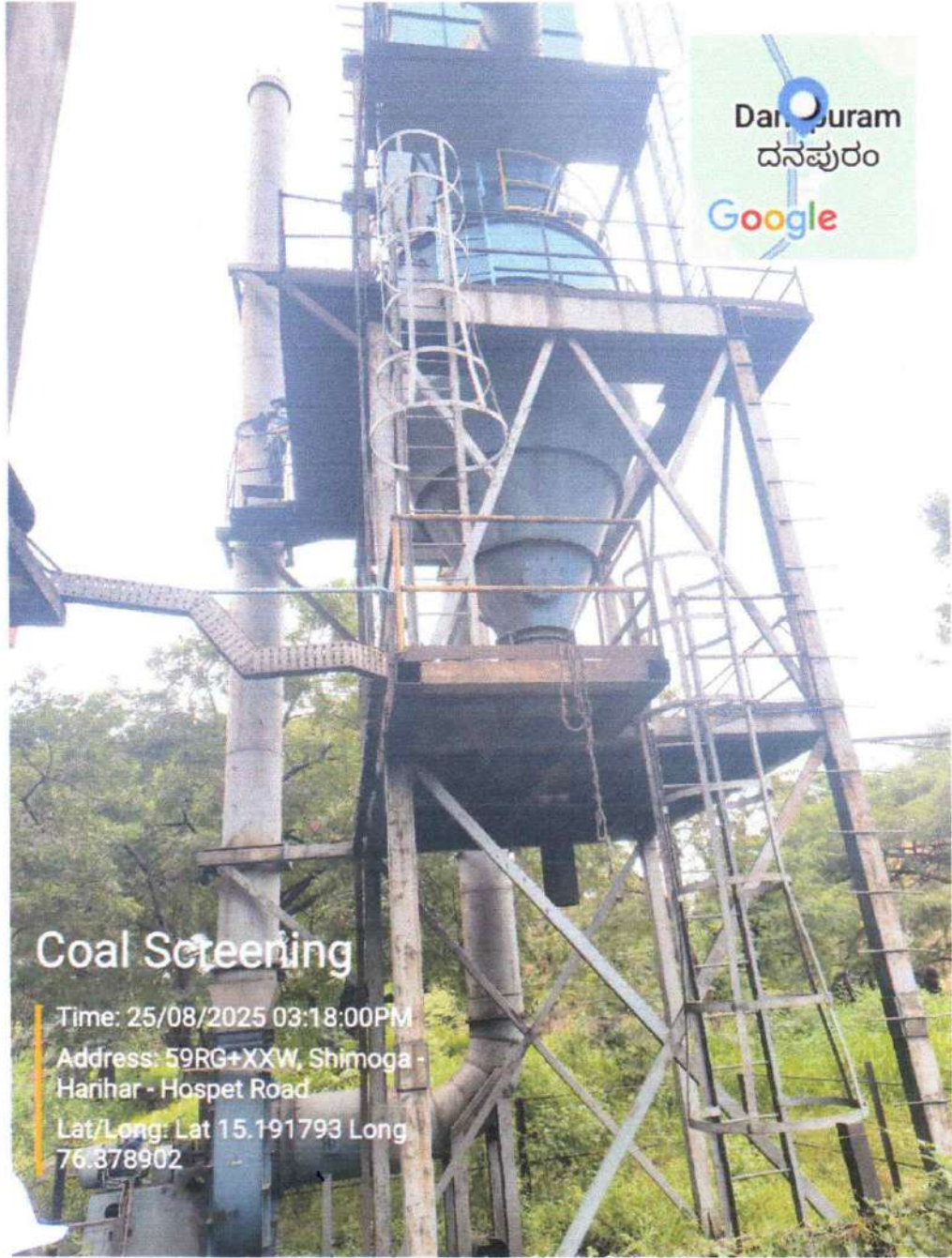


#### Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 7Days, Waste Water After Analysis Discard the Samples, Minerals 3 Months, Filter papers & Thimbles After analysis Discard 7 days.
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- Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
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- Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey

## STACK EMISSION

Location: Stack Attached to Coke Screening & Store





# **GLOBAL ENVIRONMENT & MINING SERVICES LLP**

(Consulting Engineers, Mine designers, Geologist & Surveyors)  
3rd Main Road, Basaveswara Badavane,  
**HOSAPETE - 583201**, Dist., Vijayanagara (Karnataka)  
Ph : 08394 355369  
e-mail : gems\_hpt@yahoo.com  
Website : www.gemslp.in



**ANNEXURE-12**  
**GEMS-LD/TF/08/01**

## **AMBIENT NOISE LEVEL MONITORING REPORT**

Name of the Industry : **M/s. The Sandur Manganese & Iron Ores Ltd.**  
(Metal & Ferro Alloys Plant),  
Vyasanakere, Hanumanahalli Village,  
Hospet Taluk, Vijayanagara Dist,  
Customer Reference : Workorder No.4200011817 Dated:20.08.2025  
Sample collected by : Global Environment & Mining Services LLP  
Discipline : Chemical  
Group : Atmospheric Pollution  
Sample Type : Noise Level Monitoring  
Particulars of Sample Collected : Lutron: SL- 4023SD  
Sl. No: Q679953  
Instrument Details : Date of Calibration:16.12.2024  
Calibration Due Date:15.12.2025  
Month : **AUGUST-2025**  
Duration of the Monitoring : 24 Hrs.  
Report Issue Date : **03.09.2025**  
Method Adopted : IS 9989-1981 Reaffirmed 2014  
Report No : **ULR-TC1618025000001742F**

| Sl. No           | Location                                   | Date of Monitoring | Noise Level dB (A)                 |      |       |          |                                      |      |       |          |
|------------------|--|--------------------|------------------------------------|------|-------|----------|--------------------------------------|------|-------|----------|
|                  |  |                    | Day Time<br>(06.00 Am to 10.00 Pm) |      |       | Standard | Night Time<br>(10.00 Pm to 06.00 Am) |      |       | Standard |
|                  |  |                    | Min                                | Max  | Avg   |          |                                      | Min  | Max   |          |
| Industrial Area  |  |                    |                                    |      |       |          |                                      |      |       |          |
| N1               | Near Existing AAQMS 01<br>(SMIORE Schools) | 08.08.2025         | 40.1                               | 61.2 | 56.24 | 75       | 35.2                                 | 46.2 | 44.28 | 70       |
| N2               | Near Water Reservoir<br>(WTP Plant)        | 09.08.2025         | 43.5                               | 63.6 | 54.45 |          | 38.6                                 | 58.1 | 51.12 |          |
| Residential Area |  |                    |                                    |      |       |          |                                      |      |       |          |
| N3               | Galemmanagudi                              | 05.08.2025         | 54.8                               | 57.2 | 54.66 | 55       | 37.3                                 | 42.5 | 39.72 | 45       |
| N4               | Vyasanakere Village                        | 12.08.2025         | 39.2                               | 56.1 | 53.42 |          | 35.0                                 | 46.1 | 43.66 |          |
| N5               | Hanumana Halli                             | 02.08.2025         | 54.4                               | 56.4 | 53.72 |          | 37.2                                 | 40.4 | 38.81 |          |

**INFERENCE** As per CPCB Standards,  
Report Status: - Measured Values for the above parameters are within the limit.  
\*\*End of the Report\*\*

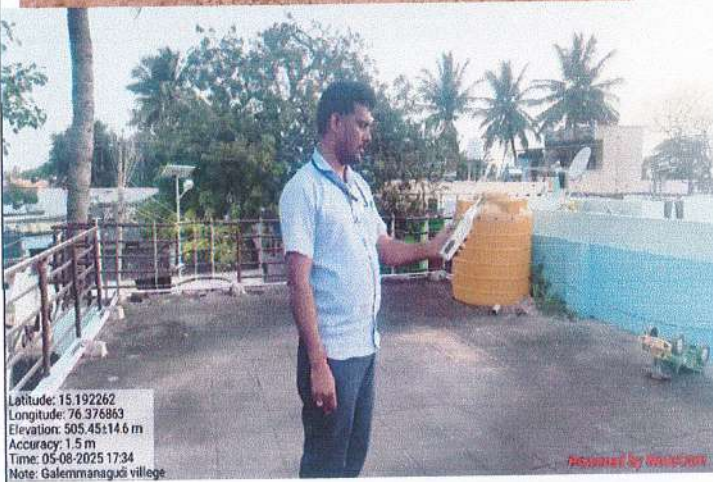
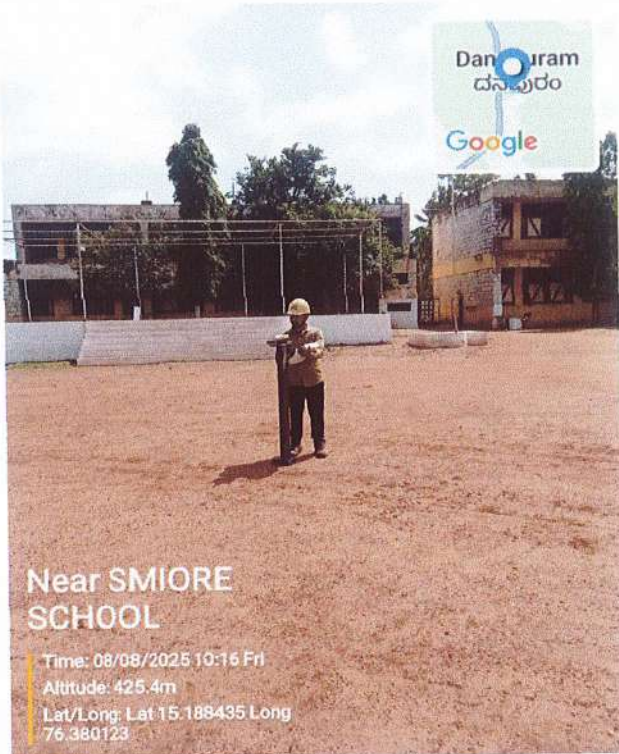
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager

### **NOISE: (AMBIENT STANDARDS)**

| Area code | Category of Area | Limit in dB(A) Leq |            |
|-----------|------------------|--------------------|------------|
|           |                  | Day Time           | Night Time |
| A         | Industrial Area  | 75                 | 70         |
| B         | Commercial Area  | 65                 | 55         |
| C         | Residential Area | 55                 | 45         |
| D         | Silence Area     | 50                 | 40         |

- Note:**
- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
  - Water Samples will be destroyed after 7Days, Waste Water After Analysis Discard the Samples, Minerals 3 Months, Filter papers & Thimbles After analysis Discard 7 days.
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  - Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
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## AMBIENT AIR NOISE LEVEL MONITORING



# The Sandur Manganese & Iron Ores Limited

(An ISO 9001:2015; ISO 14001:2015 and 45001:2018 certified company)

CIN: L85110KA1954PLC000759; Website: www.sandurgroup.com

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



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

Ref No: SMIORE/PLANT/ENV/MR/2025-26/040-

8th September 2025

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

**Subject:** Submission of Environmental Monitoring Report - August 2025---

**Reference:**

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

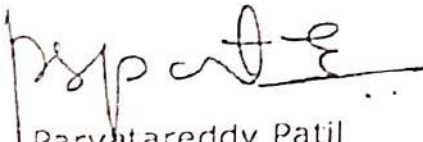
Dear Sir,

We are herewith submitting the Environmental Monitoring report of M/s The Sandur Manganese & Iron Ores Limited, Vyasanakere, Hanumanahalli Post, 583222, Hosapete Taluk, Vijayanagara District, for the Period August-2025 for your kind perusal.

Kindly acknowledge receipt of the same and oblige.

Thanking you,

For The Sandur Manganese & Iron Ores Limited



Parvatareddy Patil  
Senior General Manager-Plant



**Encl:** Environmental Monitoring Report August-2025

Hanumanahalli Post - 583 222, Hosapete Taluk, Vijayanagara District, for

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

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

ಸ್ವೀಕೃತಿ  
ಕೆ.ರಾ.ಮಾ.ನಿ. ಮಂಡಳಿ  
ಪ್ರಾದೇಶಿಕ ಕಛೇರಿ ನಿಜಾಯನಗರ ಹೊಸಪೇಟೆ  
ಸಂಖ್ಯೆ/ದಿನಾಂಕ: 9/9/25



## GLOBAL ENVIRONMENT & MINING SERVICES LLP

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3<sup>rd</sup> Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems\_hpt@yahoo.com

Website : www.gemslip.in



TC-16180

ANNEXURE-13  
GEMS-LD/TF/23/01

### Analysis Report of Water Quality Data

- 1 Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.  
(Metal & Ferro Alloys Plant),  
Vyasanakere, Hanumanahalli Village,  
Hospet Taluk, Vijayanagara Dist ,
- 2 Customer Reference : Workorder No.4200011817 Dated:20.08.2025
- 3 Sample collected by : Global Environment & Mining Services LLP
- 4 Particulars of sample collected : Composite Sampling
- 5 Sampling Procedure : GEMS-LD/SOP/32
- 6 Discipline : Chemical
- 7 Group : Pollution & Environment
- 8 Sample Type : Sewage Treatment Plant (Outlet)
- 9 Sample Code : 4377
- 10 Date of Sampling : 28.08.2025
- 11 Sample Received : 28.08.2025
- 12 Date of Analysis : 29.08.2025
- 13 Date of Analysis Completion : 02.09.2025
- 14 Report Issue Date : 03.09.2025
- 15 Report Number : ULR-TC1618025000002244F

| Sl. No. | Parameters  | Protocol                          | Unit | Results | As per KSPCB Std |
|---------|---|-----------------------------------|------|---------|------------------|
| 1.      | pH  | APHA 24th Edition 4500 H +B: 2023 | -    | 7.82    | 6.5 to 9.0       |
| 2.      | Total Suspended Solids                            | APHA 24th Edition 2540 D: 2023    | mg/L | 14.0    | <20              |
| 3.      | Biochemical Oxygen Demand as BOD (3 days at 27°C) | IS 3025 PART 44: 2023             | mg/L | 6.0     | <10              |
| 4.      | Chemical Oxygen Demand as COD                     | APHA 24th Edition 5220 B: 2023    | mg/L | 36.4    | <50              |

Note: BDL-Below detectable Limit. INFERENCE: The Measured values are within the Limit.

\*\*End of the Report\*\*

*Brunda.B*  
Analysed By  
Brunda.B  
Chemist

*K. Ramakrishna Reddy*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



#### Note:

1. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
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ANNEXURE-13  
GEMS-LD/TF/23/01

### Analysis Report of Water Quality Data

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- 4 Particulars of sample collected : Composite Sampling
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- 12 Date of Analysis : 29.08.2025
- 13 Date of Analysis Completion : 02.09.2025
- 14 Report Issue Date : **03.09.2025**
- 15 Report Number : **GEMS/BMMIL/STP/2025-26/2244**

| Sl. No. | Parameters              | Protocol                        | Unit      | Results | As per KSPCB Std |
|---------|-------------------------|---------------------------------|-----------|---------|------------------|
| 5       | Ammonical nitrogen as N | IS:3025 (part 34)-1988, RA-2023 | mg/L      | 3.36    | <5               |
| 6       | Total Nitrogen as N     | IS:3025 (part 34)-1988, RA-2023 | mg/L      | 6.16    | <10              |
| 7       | Fecal coliform          | APHA 24th Edition 9222 B :2023  | MPN/100ml | 22      | Less than 100    |

**Note:** BDL-Below detectable Limit. **INFERENCE:** The Measured values are within the Limit.

  
**Analysed By**  
Brunda B  
Chemist

  
**Authorised Signatory**  
K. Ramakrishna Reddy  
Technical Manager



- Recognized by Ministry of Environment, Forest and Climate Change for Laboratory
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**Sewage Treatment Plant**  
**Location : Sewage Treatment Plant (Outlet Water)**

