

o/c

# 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

No: SMIORE/MN/060126/2678/910

06 January 2026

The Environmental Officer,  
Karnataka State Pollution Control Board,  
Ward No.25, 4th Main Road,  
Kuvempu Nagar,  
Ballari - 583104

Dear Sir,

Sub: Submission of reports pertaining to monitoring environmental parameters for the month of December 2025 in respect of Mining Lease No. 2678.

- Ref: 1. Environmental Clearance F.No. IA-J-11015/45/2021-IA-II(M) dated 25 April 2023.  
2. Consent for Operation No. AW-345054 dated 18 September 2024.  
3. Consent for Operation No. AW-348549 dated 29 April 2025.

With reference to the letter cited above, we are enclosing herewith environmental monitoring reports from NABET accredited and MoEF&CC empaneled laboratory M/s Mineral Engineering Services as per stipulated environmental parameters in Environmental Clearance and Consent for Operation-Expansion for the month of December 2025 in respect of Mining Lease No. 2678 of The Sandur Manganese & Iron Ores Limited.

Kindly request you to acknowledge receipt of the reports and oblige.

Thank you,  
for The Sandur Manganese & Iron Ores Limited,

Parthipan P  
Sr. General Manager & Agent

Encl: Monitoring Reports



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

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



National Accreditation Board for  
Testing and Calibration Laboratories

**CERTIFICATE OF ACCREDITATION**

**ENVIRONMENTAL LABORATORY (UNIT OF MINERAL  
ENGINEERING SERVICES LLP)**

has been assessed and accredited in accordance with the standard

**ISO/IEC 17025:2017**

**"General Requirements for the Competence of Testing &  
Calibration Laboratories"**

for its facilities at

#948,2ND CROSS, ST.THOMAS TOWN POST,KAMMANAHALLI MAIN ROAD, BENGALURU, BENGALURU  
URBAN, KARNATAKA, INDIA

in the field of

**TESTING**

Certificate Number: TC-6172

Issue Date: 24/05/2025

Valid Until: 23/05/2027

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued  
satisfactory compliance to the above standard & the relevant requirements of NABL.  
(To see the scope of accreditation of this laboratory, you may also visit NABL website [www.nabl-india.org](http://www.nabl-india.org))

Name of Legal Entity: MINERAL ENGINEERING SERVICES LLP

Signed for and on behalf of NABL



  
Anuja Anand  
Director

  
N. Venkateswaran  
Chief Executive Officer





**LIFE**  
Lifestyle For  
Environment



केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
CENTRAL POLLUTION CONTROL BOARD  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार  
MINISTRY OF ENVIRONMENT FOREST & CLIMATE CHANGE GOVT OF INDIA

12<sup>th</sup> June 2025

F. No. LB/99/7/2021-INST LAB-HO-CPCB-HO/Pvt./-554

Recognition Letter

To,  
The Head of Laboratory,  
M/s Environmental Laboratory (Unit of Mineral Engineering Services),  
948 2<sup>nd</sup> Cross St Thomas Town Post,  
Kammanahalli, Bengaluru-560084,  
Karnataka.

**Subject: Recognition of M/s Environmental Laboratory (Unit of Mineral Engineering Services), 948 2<sup>nd</sup> Cross St Thomas Town Post, Kammanahalli, Bengaluru-560084, Karnataka as Environmental laboratory under the Environmental (Protection) Act- 1986- reg.**

Sir,

With reference to your application dated 19/03/2025 along with acceptance of the terms & conditions of the guidelines for recognition of environmental laboratories under the Environmental (Protection) Act, 1986, submitted to Central Pollution Control Board (CPCB), the Competent Authority of CPCB has accorded approval for renewal of recognition of Environmental laboratory and Govt. Analysts. Subsequently, M/s **Environmental Laboratory (Unit of Mineral Engineering Services), 948 2<sup>nd</sup> Cross St Thomas Town Post, Kammanahalli, Bengaluru-560084, Karnataka** shall be notified considering the current requirement of mandatory accreditation / certifications of the laboratory with a validity up to 23/05/2028 (for three years), subject to validity of ISO/IEC 17025 and IS/ISO 45001.

2. The following analysts have been approved as Government Analysts:

1. Sh. M. Sachin Raju
2. Smt. Arshiya Kousar
3. Smt. Binu Mani

3. The laboratory should compulsorily follow the accepted terms and conditions and may undertake the following tests:

- a) **Physical Tests:** Conductivity, Colour, pH, Fixed & Volatile Solids, Total Solids, Total Dissolved Solids, Total Suspended Solids, Turbidity, Temperature, Velocity & Discharge Measurement of Industrial Effluent Stream, Flocculation Test (Jar Test), Odour, Salinity, Settleable Solids and Sludge Volume Index (SVI).
- b) **Inorganic (General and Non-metallic):** Acidity, Alkalinity, Ammonical Nitrogen, Chloride, Chlorine Residual, Dissolved Oxygen, Fluoride, Total Hardness, Total Kjeldahl Nitrogen (TKN), Nitrite Nitrogen, Nitrate Nitrogen, Phosphate, Sulphate, Cyanide, Silica and Sulphide.
- c) **Inorganic (Trace Metals):** Boron, Cadmium, Calcium, Total Chromium, Chromium Hexavalent, Copper, Iron, Lead, Magnesium, Mercury, Nickel, Potassium, Sodium, Sodium Absorption Ratio (SAR), Zinc, Arsenic, Aluminium, Antimony, Barium, Cobalt, Selenium, Silver, Tin and Vanadium.
- d) **Organics (General) and Trace Organics:** Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Oil and Grease, Phenolic Compounds, Pesticides (each) (Organo-Chlorine and Organo Nitrogen-Phosphorus), Poly-Chlorinated Biphenyl (PCB's) each, Polynuclear Aromatic Hydrocarbon (PAH), Surfactants and Tannin & Lignin.
- e) **Microbiological Test:** Total Coliform, Faecal Coliform, *E. coli*, Faecal Streptococci and Total Plate Count.
- f) **Toxicological Tests:** Bioassay Method for Evaluation of Toxicity Using Fish (90% survival of fish after 96 hrs in 100% effluent) and Measurement of toxicity using Daphnia or other organism.

contd.

‘परिवेश भवन’ पर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in





- g) **Biological Test:** Macrophytic Identification, Planktonic Identification Count and Chlorophyll.
  - h) **Characterization of Hazardous Waste:** Corrosivity, Ignibility (Flash Point) and Measurement of Heavy Metals/Pesticides in the Waste/Leachate.
  - i) **Soil/Sludge/Sediment and Solid Waste:** Boron, Cation Exchange Capacity (CEC), Electrical Conductivity, Nitrogen (Available), Organic Carbon/Matter (Chemical Method), pH, Phosphorous (Available), Phosphate (Ortho), Phosphate (Total), Potassium, SAR in Soil Extract, Sodium, Soil Moisture, TKN, Calorific Value, Ammonia, Bicarbonate, Calcium, Calcium Carbonate, Chloride, Colour, H. Acid, Heavy Metal, Magnesium, Nitrate, Nitrite, Potash(Available), Sulphate, Sulphur, Total Organic Carbon (TOC), Total Water Soluble Salt and Water Holding Capacity.
  - j) **Ambient Air/ Fugitive Emissions:** Nitrogen Dioxide (NO<sub>2</sub>), Sulphur Dioxide (SO<sub>2</sub>), Total Suspended Particulate Matter, Respirable Suspended Particulate Matter (PM<sub>10</sub>), Ammonia, Carbon monoxide, Chlorine, Lead, Ozone, Benzene Toluene Xylene (BTX), Polycyclic Aromatic Hydrocarbon (PAH) Benzo-a-Pyrene & others and PM<sub>2.5</sub>.
  - k) **Stack Gases/ Source Emission:** Particulate Matter, Sulphur Dioxide, Velocity & Flow, Carbon Dioxide, Carbon Monoxide, Temperature, Oxygen, Oxides of Nitrogen, Acid Mist, Ammonia, Chlorine, Total Hydrocarbon, Hydrogen Sulphide and Carbon Disulphide.
  - l) **Noise Level:** Noise level measurement (20 to 140 dba) and Ambient Noise & Source Specific Noise.
  - m) **Meteorological:** Ambient Temperature, Wind Direction, Wind Speed, Relative Humidity, Solar Radiation and Rain Fall.
4. The laboratory shall compulsorily participate in the Analytical Quality Control (AQC) Exercise conducted by the CPCB to ascertain the capability of the laboratory and analysts. The lab shall submit quarterly progress report on the sample analysis carried out to CPCB.
5. The surprise inspection / periodic surveillance of the recognized environment laboratory will be undertaken to assess its proper functioning systematic operation and reliability of data generated at the laboratory by a Joint Team as per the Notification.
6. The laboratory should have the mandatory requisite accreditation and certificate of the ISO: 17025 and ISO: 45001 as per rules. This recognition is subject to such accreditations and renewals as applicable and in case of serious non-compliance of any of the terms and conditions, the laboratory may be black listed for a minimum period of two years and civil/criminal proceedings, as applicable, may be initiated for performing functions on behalf of the Government in an unauthorized manner.
7. **M/s Environmental Laboratory (Unit of Mineral Engineering Services), Bengaluru, Karnataka** is required to apply for further renewal of recognition through online using CPCB web portal (<https://cpcbepalab.in/epalab>) before expiry of recognition with mandatory accreditation / certification concerned.

Yours faithfully,

*[Signature]*  
12/6/2024

Divisional Head  
Instrumentation Laboratory



फा.सं.एलबी-2021/7/99/इंस्टलैब-एचओ-सीपीसीबी-एचओ /प्राइवेट /-554

मान्यता पत्र

सेवा में,

प्रयोगशाला प्रमुख,  
मैसर्स एनवायरनमेंटल लैबोरेटरी (यूनिट ऑफ मिनरल इंजीनियरिंग सर्विसेस एलएलपी),  
948 दूसरी क्रॉस सेंट थॉमस टाउन पोस्ट,  
कम्पनहल्ली, बेंगलुरु-560084,  
कर्नाटक।

विषय: पर्यावरण (संरक्षण) अधिनियम, 1986 के अंतर्गत पर्यावरणीय प्रयोगशाला के रूप में मैसर्स एनवायरनमेंटल लैबोरेटरी (यूनिट ऑफ मिनरल इंजीनियरिंग सर्विसेस एलएलपी), 948 दूसरी क्रॉस सेंट थॉमस टाउन पोस्ट, कम्पनहल्ली, बेंगलुरु-560084, कर्नाटक की मान्यता के बारे में।

महोदय,

केंद्रीय प्रदूषण नियंत्रण बोर्ड (के.प्र.नि.बोर्ड) को पर्यावरण (संरक्षण) अधिनियम, 1986 के अंतर्गत पर्यावरण प्रयोगशालाओं की मान्यता के लिए दिशानिर्देशों के निबंधन और शर्तों की स्वीकृति के साथ आपके दिनांक 19/03/2025 के प्रस्तुत आवेदन के संदर्भ में, के.प्र.नि.बोर्ड के सक्षम प्राधिकारी ने पर्यावरण प्रयोगशाला और सरकार के विश्लेषक की मान्यता के नवीनीकरण को अनुमोदन प्रदान किया है। तदनुसार, मैसर्स एनवायरनमेंटल लैबोरेटरी (यूनिट ऑफ मिनरल इंजीनियरिंग सर्विसेस एलएलपी), 948 दूसरी क्रॉस सेंट थॉमस टाउन पोस्ट, कम्पनहल्ली, बेंगलुरु-560084, कर्नाटक को भारत की राजपत्र अधिसूचना में प्रयोगशाला की अनिवार्य प्रत्यायन/प्रमाणन की वर्तमान अपेक्षा को ध्यान में रखते हुए दिनांक 23/05/2028 (तीन साल) तक आईएसओ/ आईईसी 17025 और आईएस/आईएसओ 45001 की वैधता के साथ अधिसूचित किया जाएगा।

2. निम्नलिखित विश्लेषकों को सरकारी विश्लेषक के रूप में अनुमोदित किया गया है:

1. श्री. एम. सचिन राजू
2. श्रीमती अर्शिया कौसर
3. श्रीमती. बिनु मणि

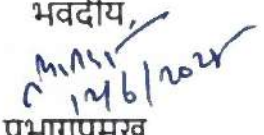
3. प्रयोगशाला अनिवार्य रूप से स्वीकृत निबंधन और शर्तों का पालन करते हुए निम्नलिखित परीक्षणों करेगी:

- क. **भौतिक परीक्षण:** चालकता, रंग, पीएच, स्थिर और वाष्पशील ठोस, कुल ठोस, कुल विलीन ठोस, कुल निलंबित ठोस, आविलता, तापमान, वेग एवं निर्वहन औद्योगिक बहिःस्राव धारा का विसर्जन मापन, फ्लोक्यूलेशन टेस्ट (जार टेस्ट), गंध, लवणता, निपटान योग्य ठोस और आपंक वॉल्यूम इंडेक्स (एसवीआई)।
- ख. **अकार्बनिक (सामान्य और गैर-धात्विक):** अम्लता, क्षारीयता, अमोनिकल नाइट्रोजन, क्लोराइड, क्लोरीन अवशिष्ट, विलीन ऑक्सीजन, फ्लोराइड, कुल कठोरता, कुल कैल्सियम नाइट्रोजन (टीकेएन), नाइट्राइट नाइट्रोजन, नाइट्रेट नाइट्रोजन, फॉस्फेट, सल्फेट, साइनाइड, सिलिका और सल्फाइड।
- ग. **अकार्बनिक (सूक्ष्म मात्रिक धातु):** बोरॉन, कैडमियम, कैल्शियम, टोटल क्रोमियम, क्रोमियम हेक्सावैलेंट, तांबा, लोहा, सीसा, मैग्नीशियम, पारा, निकल, पोटेशियम, सोडियम, सोडियम अवशोषण अनुपात (एसएआर), जिंक, आर्सेनिक, एल्युमीनियम, एंटीमनी, बेरियम, कोबाल्ट, सेलेनियम, सिल्वर, टिन और वैनेडियम।
- घ. **ऑर्गेनिक्स (सामान्य) और ट्रेस ऑर्गेनिक्स:** बायोकेमिकल ऑक्सीजन डिमांड (बीओडी), रासायनिक ऑक्सीजन डिमांड (सीओडी), तेल और ग्रीस, फेनोलिक यौगिक, कीटनाशक (प्रत्येक) (ऑर्गेनो-क्लोरीन और ऑर्गेनो नाइट्रोजन-फॉस्फोरस), पॉली-क्लोरीनेटेड बाइफेनाइल (पीसीबी) (प्रत्येक), पॉलीन्यूक्लियर एरोमैटिक हाइड्रोकार्बन (पीएच), सर्फेक्टेंट और टैनिन & लिग्निन।
- ङ. **सूक्ष्म जीवविज्ञान परीक्षण:** टोटल कोलीफॉर्म, फीकल कोलीफॉर्म, ई.कोली, फीकल स्ट्रेप्टोकोक्की, स्ट्रेप्टोकोक्की और टोटल प्लेट काउंट।
- च. **आविष विज्ञानी परीक्षण:** मछली का उपयोग करके विषाक्तता के मूल्यांकन के लिए जैव परख विधि (100% प्रवाह में 96 घंटे के बाद मछली का 90% जीवित रहना), और डैफ़निया या अन्य जीव का उपयोग करके विषाक्तता का मापन।

जारी.



- छ. **जैविक परीक्षण:** मैक्रोफाइटिक पहचान, प्लवक पहचान गणना और क्लोरोफिल।
- ज. **परिसंकटमय अपशिष्ट का लक्षण वर्णन:** संक्षारकता, ज्वलनशीलता (फ्लैश प्वाइंट) और अपशिष्ट & निक्षालक में भारी धातुओं/पीड़कनाशियों का मापन।
- झ. **मृदा/आपंक/तलछट और ठोस अपशिष्ट:** बोरॉन, कटियन एक्सचेंज क्षमता (सीईसी), विद्युत चालकता, नाइट्रोजन (उपलब्ध), कार्बनिक कार्बन/पदार्थ (रासायनिक विधि), पीएच, फास्फोरस (उपलब्ध), फॉस्फेट (ऑर्थो), फॉस्फेट (कुल), पोटेशियम, मृदा के अर्क में एसएआर, सोडियम, मृदा की नमी, टीकेएन, कैलोरी मान, अमोनिया, बाइकार्बोनेट, कैल्शियम, कैल्शियम कार्बोनेट, क्लोराइड, रंग, एच एसिड, भारी धातु, मैग्नीशियम, नाइट्रेट, नाइट्राइट, पोटेश (उपलब्ध), सल्फेट, सल्फर, कुल कार्बनिक कार्बन (टीओसी), कुल पानी में घुलनशील नमक और जल धारण क्षमता।
- ञ. **परिवेशी वायु/पलायक उत्सर्जन:** नाइट्रोजन डाइऑक्साइड (एनओ<sub>2</sub>), सल्फर डाइऑक्साइड (एसओ<sub>2</sub>), कुल निलंबित विविक्त कण, श्वसन योग्य निलंबित कण पदार्थ (पीएम<sub>10</sub>), अमोनिया, कार्बन मोनोऑक्साइड, क्लोरीन, सीसा, ओजोन, बेंजीन टोल्यूनि ज़ाइलीन (बीटीएक्स), पॉलीसाइक्लिक एरोमैटिक हाइड्रोकार्बन (पीएच) बेंजो-ए-पाइरिन और अन्य और पीएम<sub>2.5</sub>।
- ट. **चिमनी गैसें/स्रोत उत्सर्जन:** पार्टिकुलेट मैटर, सल्फर डाइऑक्साइड, वेग और प्रवाह, कार्बन डाइऑक्साइड, कार्बन मोनोऑक्साइड, तापमान, ऑक्सीजन, नाइट्रोजन के ऑक्साइड, एसिड धुंध, अमोनिया, कुल हाइड्रोकार्बन, हाइड्रोजन सल्फाइड और कार्बन डाइसल्फाइड।
- ठ. **रव (शोर) स्तर:** शोर स्तर माप (20 से 140 डीबीए) और परिवेश रव & स्रोत विशिष्ट रव।
- ड. **मौसम संबंधी:** परिवेश का तापमान, हवा की दिशा, हवा की गति, सापेक्ष आर्द्रता, सौर विकिरण और वर्षा।
4. प्रयोगशाला और विश्लेषकों की क्षमता का पता लगाने के लिए प्रयोगशाला को के.प्र.नि. बोर्ड द्वारा आयोजित विश्लेषणात्मक गुणवत्ता नियंत्रण) एक्ज्यूसी (अभ्यास में अनिवार्य रूप से भाग लेना होगा। प्रयोगशाला किए गए नमूना विश्लेषण पर के.प्र.नि. बोर्ड को तिमाही प्रगति रिपोर्ट प्रस्तुत करेगी।
5. अधिसूचना के अनुसार, एक संयुक्त दल द्वारा मान्यता प्राप्त पर्यावरण प्रयोगशाला का औचक निरीक्षण/आवधिक निगरानी उस के उचित कामकाज, व्यवस्थित प्रचालन और प्रयोगशाला में तैयार किए गए आंकड़ों की विश्वसनीयता का निर्धारण करने के लिए की जाएगी।
6. प्रयोगशाला के पास नियमानुसार ISO/IEC: 17025:2017 (और IS/ ISO: 45001 का अपेक्षित प्रत्यायन और प्रमाण पत्र होना चाहिए। यह मान्यता यथा लागू प्रत्यायन और नवीनीकरण के अधीन है और किसी भी निबंधन और शर्तों के गंभीर गैर-अनुपालन के मामले में, प्रयोगशाला को न्यूनतम दो साल की अवधि के लिए ब्लैकलिस्ट किया जा सकता है और सरकार की ओर से अनधिकृत तरीके से कार्य करने के लिए, यथा लागू सिविल/आपराधिक कार्यवाही शुरू की जा सकती है।
7. **मैसर्स एनवायरनमेंटल लैबोरेटरी (यूनिट ऑफ मिनरल इंजीनियरिंग सर्विसेस एलएलपी), बेंगलुरु, कर्नाटक** को संबंधित अनिवार्य प्रत्यायन/प्रमाणीकरण के साथ मान्यता की समाप्ति से पूर्व केंद्रीय प्रदूषण नियंत्रण बोर्ड के वेबपोर्टल (<https://cpcbepalab.in/epalab>) का उपयोग कर के ऑनलाइन मान्यता के नवीनीकरण के लिए आवेदन करना अपेक्षित है।

भवदीय,  
  
 प्रभागप्रमुख  
 उपकरणीय प्रयोगशाला



# ENVIRONMENTAL MONITORING REPORT

Project	Mining Lease No. 2678
Location	Deogiri Manganese & Iron Ore Mine, Kammathuru Iron Ore Mine, Subrayanahalli Manganese & Iron Ore Mine, Sandur Taluk, Ballari Dist, Karnataka
Client	M/s. The Sandur Manganese & Iron Ores Limited
Office Address	Sandur, Ballari District, Karnataka
Monitoring Month	December -2025

## ENVIRONMENTAL LABORATORY (Unit of Mineral Engineering Services LLP)

Recognised by MoEF&CC Under E(P) Act 1986  
&

Accredited by NABL  
#948, 2<sup>nd</sup> Cross, Kammanahalli Main Road,  
St Thomas Town Post,  
Bangalore- 560 084, Karnataka

### LIST OF TABLES

SL. NO.	PARTICULARS	Table No.
1	Test Report of Ambient Air Quality	1 to 10
2	Test Report of Fugitive Air Quality	11 & 13
3	Dust Fall Measurement	14
4	Ambient Noise Monitoring Report	15
5	Source Water Noise Monitoring Report	16
6	STP Water Test Report	17 & 18
7	Surface Water Test Report	19 & 20
8	Ground Water Test Report	21 & 22
9	Drinking Water Test Report	23 & 24
10	Soil Test Report	25 & 26
11	DG Stack Monitoring Report	26 to 34
12	Mobile Crusher Stack Monitoring Report	35 & 39
13	Personal Dust Survey Report	40
14	Free Silica Analysis Report	41





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.1

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A1 - Mine Pit (SK) / (CBG)  
Duration : 24 Hrs  
Issue date : 02.01.2026  
Sampling & Test Metho : IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
05.12.2025	N010225121	9	11	54	28	0.33
06.12.2025	N002125122	8	12	48	23	0.45
12.12.2025	N027025122	12	18	58	30	0.28
13.12.2025	N00102523	11	15	55	29	0.36
19.12.2025	N02042523	10	13	46	25	0.42
20.12.2025	N000325124	12	18	49	27	0.25
24.12.2025	N018725124	11	14	40	22	0.35
25.12.2025	N023025124	7	10	46	26	0.52
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.2

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A2 - Kammathuru (within ML Area)  
Duration : 24 Hrs  
Issue date : 02.01.2026  
Sampling & Test Metho : IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
05.12.2025	N009025121	11	16	55	28	0.28
06.12.2025	N001025122	10	13	51	27	0.44
08.12.2025	N009925122	9	11	48	26	0.46
09.12.2025	N016925122	12	15	50	28	0.52
15.12.2025	N00632523	9	12	44	24	0.38
16.12.2025	N01152523	8	11	57	30	0.44
22.12.2025	N007325124	12	16	48	27	0.52
23.12.2025	N013125124	11	14	37	16	0.35
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

*Arshiy Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.3

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A3 - Deogiri (within ML Area)  
Duration : 24 Hrs  
Issue date : 02.01.2026  
Sampling & Test Method: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
05.12.2025	N009125121	12	18	45	25	0.46
06.12.2025	N001125122	10	16	53	28	0.42
08.12.2025	N010025122	13	15	50	27	0.50
09.12.2025	N017025122	8	11	41	24	0.39
15.12.2025	N00642523	13	14	45	24	0.25
16.12.2025	N01162523	12	17	53	28	0.45
22.12.2025	N007425124	9	11	40	22	0.62
23.12.2025	N013225124	11	15	38	19	0.35
NAAQS Limits for Industrial ,		80	80	100	60	4
Residential, Rural and other Areas		24 Hrs	24 Hrs	24 Hrs	24 Hrs	1 Hr

Note : \* Parameters monitored for period of 1 hr

*Arshiy Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.4

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A4 - SBH Plot (Mine Boundary)  
Duration : 24 Hrs  
Issue date : 02.01.2026  
Sampling & Test Methc: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
05.12.2025	N009225121	9	13	47	27	0.41
06.12.2025	N001225122	11	13	45	24	0.25
08.12.2025	N010125122	12	18	38	20	0.36
09.12.2025	N017125122	10	14	46	24	0.54
15.12.2025	N00652523	9	12	54	28	0.46
16.12.2025	N01172523	11	16	33	18	0.40
22.12.2025	N007525124	12	14	52	27	0.34
23.12.2025	N013325124	9	11	48	30	0.26
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.5

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A5 - Subbarayanahalli (within ML Area)  
Duration : 24 Hrs  
Issue date : 02.01.2026  
Sampling & Test Methc: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
05.12.2025	N009325121	9	12	54	27	0.35
06.12.2025	N001325122	11	15	44	24	0.36
08.12.2025	N010225122	8	12	58	32	0.24
09.12.2025	N017225122	12	18	55	28	0.47
15.12.2025	N00662523	9	15	50	26	0.35
16.12.2025	N01182523	11	13	47	23	0.28
22.12.2025	N007625124	12	15	44	20	0.43
23.12.2025	N013425124	11	13	53	25	0.37
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.6

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A6 - Appayyanahalli (Narayanpura)  
Duration : 24 Hrs  
Issue date : 02.01.2026  
Sampling & Test Methc: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
05.12.2025	N009425121	9	11	56	32	0.55
06.12.2025	N001425122	12	16	40	22	0.26
08.12.2025	N010325122	7	14	50	27	0.37
09.12.2025	N017325122	9	12	56	30	0.33
15.12.2025	N00672523	8	15	40	20	0.45
16.12.2025	N01192523	10	11	52	28	0.29
22.12.2025	N007725124	12	17	46	29	0.36
23.12.2025	N013525124	10	13	49	26	0.40
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

*Arshiya Rousar*  
ARSHIYA ROUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.7

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A7 - Vitalanagar (Navalatti)  
Duration : 24 Hrs  
Issue date : 02.01.2026  
Sampling & Test Methc: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
05.12.2025	N009525121	11	11	44	21	0.28
06.12.2025	N001525122	12	18	55	32	0.54
08.12.2025	N010425122	9	15	51	28	0.46
09.12.2025	N017425122	10	13	48	25	0.35
15.12.2025	N00682523	9	11	57	32	0.22
16.12.2025	N01202523	12	14	53	27	0.43
22.12.2025	N007825124	9	10	43	24	0.28
23.12.2025	N013625124	12	15	53	28	0.33
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

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

*Arshiya Housar*  
ARSHIYA HOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.8

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited						
Name of the Project : Mining Lease No. 2678						
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.						
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)						
Code & Station : A8 - Swamihalli						
Duration : 24 Hrs						
Issue date : 02.01.2026						
Sampling & Test Methc: IS 5182 & Lab SOP						
Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
05.12.2025	N009625121	9	11	51	26	0.25
06.12.2025	N001625122	12	14	45	23	0.34
08.12.2025	N010525122	10	16	38	19	0.22
09.12.2025	N017525122	9	12	43	22	0.38
15.12.2025	N00692523	7	9	54	27	0.26
16.12.2025	N01212523	12	15	48	25	0.30
22.12.2025	N007925124	10	14	40	22	0.24
23.12.2025	N013725124	13	18	56	30	0.41
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr
Note : * Parameters monitored for period of 1 hr						

*Arshiy Kousar*  
ARSHIYA KOUSAR  
Dy TM : Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.9

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A9 - Yeswanthanagar  
Duration : 24 Hrs  
Issue date : 02.01.2026  
Sampling & Test Methc: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
05.12.2025	N009725121	10	16	45	25	0.52
06.12.2025	N001725122	9	15	56	29	0.26
12.12.2025	N026925122	7	9	50	27	0.37
13.12.2025	N00092523	12	15	54	26	0.48
15.12.2025	N00702523	7	11	50	26	0.55
16.12.2025	N01222523	11	15	38	20	0.46
22.12.2025	N008025124	13	18	56	27	0.37
23.12.2025	N013825124	9	13	46	20	0.28
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

*Arshiya Rousar*  
ARSHIYA ROUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.10

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Code & Station : A10 - Tonasigeri  
Duration : 24 Hrs  
Issue date : 02.01.2026  
Sampling & Test Methc: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
05.12.2025	N009825121	10	15	41	22	0.44
06.12.2025	N001825122	11	17	57	30	0.56
08.12.2025	N010625122	9	12	40	25	0.50
09.12.2025	N017625122	12	18	50	28	0.38
15.12.2025	N00712523	8	11	46	24	0.46
16.12.2025	N01232523	11	15	40	22	0.27
22.12.2025	N008125124	9	14	56	28	0.39
23.12.2025	N013925124	10	18	40	24	0.45
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 11

### Fugitive Emission

<b>Name of the Client</b>	: The Sandur Manganese & Iron Ores Limited		
<b>Name of the Project</b>	: Deogiri Manganese & Iron Ore Mine (ML NO. 2678)		
<b>Location</b>	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.		
<b>Sample Collected by</b>	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)		
<b>Duration</b>	: 08 Hrs		
<b>Issue Date</b>	: 02.01.2026		
Code & Station	Date of sample	Report No	Particulate mater ( $\mu\text{g}/\text{m}^3$ )
FA1-Mine Face / Benches	08.12.2025	N010725122	312
FA2 - Haulage Road / Service Road	08.12.2025	N010825122	389
FA3 - Crushing & Screening Plant	09.12.2025	N017725122	396
FA4 - Mineral Stack Yard / Loading	09.12.2025	N017825122	376
FA5 - Active Waste Dump	08.12.2025	N010925122	452
Ref : As per CFO in Annexure - II issued KSPCB			
<b>Permissible limits for Fugitive Emissions</b>			<b>Particulate mater ( <math>\mu\text{g}/\text{m}^3</math> ) 600 <math>\mu\text{g}/\text{m}^3</math></b>

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 12

### Fugitive Emission

<b>Name of the Client</b>	: The Sandur Manganese & Iron Ores Limited		
<b>Name of the Project</b>	: Kammathuru Iron Ore (KTIO) (ML No. 2678)		
<b>Location</b>	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.		
<b>Sample Collected by</b>	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)		
<b>Duration</b>	: 08 Hrs		
<b>Issue Date</b>	: 02.01.2026		
Code & Station	Date of sample	Report No	Particulate mater ( $\mu\text{g}/\text{m}^3$ )
FA1-Mine Face / Benches	05.12.2025	N009925121	357
FA2 - Haulage Road / Service Road	05.12.2025	N010025121	465
FA3 - Crushing & Screening Plant	05.12.2025	N010125121	389
FA4 - Mineral Stack Yard / Loading	06.12.2025	N001925122	385
FA5 - Active Waste Dump	06.12.2025	N002025122	390
Ref : As per CFO in Annexure - II issued KSPCB			
<b>Permissible limits for Fugitive Emissions</b>			<b>Particulate mater (<math>\mu\text{g}/\text{m}^3</math>)</b> <b>600 <math>\mu\text{g}/\text{m}^3</math></b>

*Arshiyakousar*  
ARSHIYAKOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 13

### Fugitive Emission

<b>Name of the Client</b>	: The Sandur Manganese & Iron Ores Limited		
<b>Name of the Project</b>	: Subrayanahalli Manganese & Iron Ore Mine (ML NO. 2678)		
<b>Location</b>	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.		
<b>Sample Collected by</b>	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)		
<b>Duration</b>	: 08 Hrs		
<b>Issue Date</b>	: 02.01.2026		
Code & Station	Date of sample	Report No	Particulate mater ( $\mu\text{g}/\text{m}^3$ )
FA1-Mine Face / Benches	15.12.2025	N00722523	268
FA2 - Haulage Road / Service Road	15.12.2025	N00732523	430
FA3 - Crushing & Screening Plant	15.12.2025	N00742523	412
FA4 - Mineral Stack Yard / Loading	16.12.2025	N01242523	366
FA5 - Active Waste Dump	16.12.2025	N01252523	375
Ref : As per CFO in Annexure - II issued KSPCB			
<b>Permissible limits for Fugitive Emissions</b>			<b>Particulate mater (<math>\mu\text{g}/\text{m}^3</math>)</b> <b>600 <math>\mu\text{g}/\text{m}^3</math></b>

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 14

### Analysis Report of Dust Fall Measurement

Name of the Client	The Sandur Manganese & Iron Ores Limited
Name of the Project	Mining Lease No. 2678
Location	Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.
Month	01.12.2025 to 31.12.2025
Sample Type	Dust Fall
Duration of Monitoring	One Month
Issue Date	02.01.2026

### Result

Code	Location	Result	unit	Reference Method
DF1	Deogiri mines office	0.128	g/m <sup>2</sup> month	IS 5182 (Part 01) : 2006
DF2	Kammathuru (Near School)	0.124	g/m <sup>2</sup> month	IS 5182 (Part 01) : 2006
DF3	Appayyanahalli	0.152	g/m <sup>2</sup> month	IS 5182 (Part 01) : 2006
DF4	Subbarayanahalli (Near Hospital)	0.132	g/m <sup>2</sup> month	IS 5182 (Part 01) : 2006
DF5	Yeswanthanagar (Near Railway Track)	0.137	g/m <sup>2</sup> month	IS 5182 (Part 01) : 2006
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)				

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 15

### AMBIENT NOISE LEVEL DATA

Report No : ELMES052512

Name of the Client	: The Sandur Manganese & Iron Ores Limited
Name of the Project	: Mining Lease No. 2678
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Particulars of Sample	: Noise levels
Issue Date	: 02.01.2026
Sampling	: IS : 9989 & CPCB Guidelines

#### Corezone

Code No.	Monitoring stations	Date of monitoring	Day			Night		
			L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>	L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>
N1	Mine Pit (SK/CBG)	05.12.2025	41.0	60.7	68.0	34.0	51.6	57.2
N2	Kammathuru ML Area	05.12.2025	40.0	59.3	69.2	38.0	52.4	59.4
N3	Deogiri ML Area	05.12.2025	38.0	54.9	64.0	35.0	48.7	57.4
N4	SBS Plot (Mine Boundary)	06.12.2025	41.0	56.4	65.6	36.0	49.3	56.7
N5	SB Halli ML Area	06.12.2025	42.3	63.1	72.0	37.0	53.3	63.0
N6	Mine area	06.12.2025	41.6	66.3	75.0	40.0	58.4	65.0

#### Bufferzone

Code No.	Monitoring stations	Date of monitoring	Day			Night		
			L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>	L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>
N7	Appayanahalli (Narayanapura)	08.12.2025	40.0	49.7	58.0	34.0	42.4	47.3
N8	Vitthalanagar (Navalatti)	08.12.2025	41.0	51.2	59.0	35.0	44.0	48.0
N9	Swamihalli	08.12.2025	36.0	48.5	56.0	34.0	40.1	45.0
N10	Yeshwanthnagar	09.12.2025	41.0	52.5	57.5	35.0	43.3	48.0
N11	Tonasingeri	09.12.2025	38.0	52.5	56.8	36.0	42.3	46.2
N12	Kumaraswamy Temple	09.12.2025	37.5	50.5	58.0	34.0	41.4	48.0

#### Permissible Limits of Ambient Noise Levels as per CPCB Guidelines

Leq. Limit dB(A)

	Day	Night
Industrial areas	75	70
Commercial area	65	55
Residential area	55	45

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office &amp; Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 16

### SOURCE NOISE LEVEL DATA

Report No : ELMES062512

Name of the Client	: The Sandur Manganese & Iron Ores Limited					
Name of the Project	: Mining Lease No. 2678					
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.					
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
Particulars of Sample	: Noise levels					
Issue Date	: 02.01.2026					
Sampling	: IS : 9989 & CPCB Guidelines					
<b>Source</b>						
Code No.	Monitoring stations	Date of monitoring	Day			Remarks
			L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>	
N1	Mine Face	15.12.2025	43.2	63.5	74.2	During operation
N2	Haulage Road	15.12.2025	44.2	72.4	85.2	During operation
N3	Crushing & Screening Plant	15.12.2025	46.0	73.2	86.1	During operation
N4	Mineral Stock Yard	15.12.2025	44.6	65.4	64.8	During operation
N5	Active Waste Dump	15.12.2025	40.2	67.2	76.5	During operation
<b>Permissible Limits of Ambient Noise Levels as per CPCB Guidelines</b>						
Leq. Limit dB(A)						
Day Night						
Industrial areas 75 70						
<b>Heavy Earth Moving Machineries</b>						
Code No.	Monitoring stations	Date of monitoring	Day			Remarks
			L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>	
N6	DG 1010 KVA (808 KW)	16.12.2025	42.3	70.3	78.7	During operation from 10mts distance
N7	Wheel Loader	16.12.2025	40.8	72.6	78.2	During operation in side of the cabin
			39.2	68.2	72.0	During operation 10mts outside of the cabin
N8	Tata Hitachi 200LC	16.12.2025	43.0	70.2	78.2	During operation in side of the cabin
			40.0	66.3	69.4	During operation 10mts outside of the cabin
N9	Volvo Hitachi EC260 BLC	16.12.2025	45.3	72.3	78.3	During operation in side of the cabin
			42.5	71.2	72.5	During operation 10mts outside of the cabin
N10	Excavator EC2100 Operator	16.12.2025	46.2	71.5	79.2	During operation in side of the cabin
			40.0	68.1	76.4	During operation 10mts outside of the cabin
N11	Sandvik Screening & Crushing Plant - MCP- 2 (500 TPH)	22.12.2025	40.2	72.3	79.2	During operation from 10mts distance
N12	Sandvik Screening & Crushing Plant - MCP - 1 (500 TPH)	22.12.2025	39.2	68.2	76.4	During operation from 10mts distance
N13	Terex Screening Plant - MSP - 2 (350 TPH)	22.12.2025	42.3	64.2	78.0	During operation from 10mts distance
N14	Keestrak Screening Plant - MSP-1 (600 TPH)	23.12.2025	46.2	74.2	80.1	During operation from 10mts distance
N15	Keestrak Screening Plant - MSP-3 (350 TPH)	23.12.2025	44.8	72.3	78.2	During operation from 10mts distance
N16	Keestrak Crushing & Screening Plant - MCP- 3 (350 TPH)	23.12.2025	42.0	68.2	79.2	During operation from 10mts distance
<b>Permissible limits as per ILO Code of Practice</b>						
For Unprotected ear - 8 hrs working shift						
Warning limit - 85 dB(A)						
Danger limit - 90 dB(A)						
Worker not to be exposed for more than 115 dB(A)						
With ear protection -						
130 dB(A) 'Impulse' or 120 dB(A) 'Fast'						
No entry when noise level exceeds 140 dB(A)						

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No: 17

Name of the Client	: The Sandur Manganese & Iron Ores Limited
Name of the Project	: Mining Lease No. 2678
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of Sample	: STP Water
Sample Location	: STP1, Inlet Water sample from 100 KLD STP, Deogiri
Date of sample collection	: 08.12.2025
Date of sample receipt	: 09.12.2025
Report No	: M001925122
Issue Date	: 02.01.2026
Ref: G S R 1265 (e) and CPCB Standards	

Sl.No.	Sample Code	STP1	Results	Method of Testing
	Parameters	Unit		
1	pH	-	6.75	IS 3025 (P-11) 2022
2	Biochemical Oxygen Demand BOD <sub>5</sub> 27 <sup>0</sup> C	mg/l	58	IS 3025 (Part 44) 2023
3	Chemical Oxygen Demand (COD)	mg/l	260	IS 3025 (Part 58) 2023
4	Total Suspended Solids, at 105 <sup>0</sup> C	mg/l	215	IS 3025 (P-17) 2022
5	Ammonium (H4-N)	mg/l	1.5	IS:3025 (Part-34 Sec 1) 2023
6	Total Nitrogen (N-Total)	mg/l	12	IS 3025 (Part-34 sec 1) 2023
7	Fecal coliform	MPN/100ml	215	APHA 24 <sup>th</sup> Edition chapter 9221 E

  
BINU MANI

TM - Microbiology  
Govt Analyst/Authorised Signatory

  
ARSHIYA KOUSAR

Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 18

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory  
(Unit of Mineral Engineering Services LLP)  
Nature of Sample : STP Water  
Sample Location : STP2, Outlet Water sample from 100 KLD STP, Deogiri  
Date of sample collection : 08.12.2025  
Date of sample receipt : 09.12.2025  
Report No : M002025122  
Issue Date : 02.01.2026

Ref: G S R 1265 (e) and CPCB Standards

Sl.No.	Parameters	units	Results	Sewage Effluent Discharge Standards	Method of Testing
1	pH	-	6.62	6.5 - 9.0	IS 3025 (P-11) 2022
2	Biochemical Oxygen Demand BOD <sub>5</sub> 27° C	mg/l	5.6	<10	IS 3025 (Part 44) 2023
3	Chemical Oxygen Demand (COD)	mg/l	32	<50	IS 3025 (Part 58) 2023
4	Total Suspended Solids, at 105°C	mg/l	18	<20	IS 3025 (P-17) 2022
5	Ammonium (H4-N)	mg/l	0.7	<5	IS:3025 (Part-34 Sec 1) 2023
6	Total Nitrogen (N-Total)	mg/l	1.8	<10	IS 3025 (Part-34 sec 1) 2023
7	Fecal coliform	MPN/100ml	22	<100	APHA 24 <sup>th</sup> Edition chapter 9221 E

  
BINU MANI  
TM - Microbiology  
Govt Analyst/Authorised Signatory

  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in

Note : This report is subject to the terms and conditions mentioned overleaf.





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 19

Name of the Client	: The Sandur Manganese & Iron Ores Limited
Name of the Project	: Mining Lease No. 2678
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of sample	: Surface water
Sample Location	: SW1 - Durgammakolla spring water, SW2 - JLK spring water SW3 - Katrasinghkolla spring water
Date of sample collection	: 08.12.2025
Date of sample receipt	: 09.12.2025
Issue Date	: 02.01.2026
Ref : IS : 2296, Water Quality Standards	

Report No	M000925122	M001025122	M001125122		
SI.No.	Sample Code	SW1	SW2	SW3	Limits
	Parameters	Results			Method of Testing
1	pH	7.56	6.20	7.62	6.5 to 8.5
2	Colour (Hazen Units)	3	3	1	300
3	Odour	Agreeable	Agreeable	Agreeable	-
4	Total Dissolved Solids (mg/l)	330	162	152	1500
5	Total Suspended Solids, mg/l	8	5.6	26	-
6	Dissolved Oxygen (as O <sub>2</sub> ), mg/l	5.5	5.7	5.8	Min 4
7	Biochemical Oxygen Demand (as O <sub>2</sub> ), mg/l	<3.0	<3.0	<3.0	3
8	Total Hardness (as CaCO <sub>3</sub> ), mg/l	235	52	54	-
9	Sulphates as SO <sub>4</sub> (mg/l)	70.0	48.0	32.0	400
10	Phosphates (as P), mg/l	<0.05	<0.05	<0.05	-
11	Chloride (as Cl), mg/l	40.0	42.0	53.0	600
12	Fluoride (as F), mg/l	0.4	0.36	0.42	0.38
13	Sulphide (as H <sub>2</sub> S), mg/l	<0.01	<0.01	<0.01	-
14	Boron (as B), mg/l	<0.1	<0.1	<0.1	-
15	Iron (as Fe), mg/l	<0.005	<0.005	<0.005	50
16	Percent of Sodium (%)	21.23	22.12	22.65	-
17	Residual Sodium Carbonate (meq/l)	<0.5	<0.5	<0.5	-
18	Total Coliform, MPN/100ml	55	45	50	5000

"END OF REPORT"

  
BINU MANI  
TM - Microbiology  
Govt Analyst/Authorised Signatory

  
ARSHIYA HOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.20

Name of the Client	: The Sandur Manganese & Iron Ores Limited
Name of the Project	: Mining Lease No. 2678
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of sample	: Surface water
Sample Location	: SW4 - Hari Shankar Spring Water, SW5 - Narihalla Dam water
Date of sample collection	: 10.12.2025
Date of sample receipt	: 11.12.2025
Issue Date	: 02.01.2026
Ref : IS : 2296, Water Quality Standards	

Report No		M006625122	M006725122	Limits	Method of Testing
Sl.No.	Sample Code	SW4	SW5		
	Parameters	Results			
1	pH	6.80	7.64	6.5 to 8.5	IS:3025(Part-11)2022
2	Colour (Hazen Units)	1.0	20.0	300	IS 3025 (Part 11) 2022
3	Odour	Agreeable	Agreeable	-	IS:3025 (P-5) 2018
4	Total Dissolved Solids (mg/l)	76.0	522.0	1500	IS 3025 (Part 16) 2023
5	Total Suspended Solids, mg/l	14	52	-	IS 3025 (Part 17) 2023
6	Dissolved Oxygen (as O <sub>2</sub> ), mg/l	5.80	5.60	Min 4	IS:3025(Part-38)1989RA 2019
7	Biochemical Oxygen Demand (as O <sub>2</sub> ), mg/l	<3.0	<3.0	3	IS 3025 (Part 44) 2023
8	Total Hardness (as CaCO <sub>3</sub> ),mg/l	38.0	250	-	IS:3025 (P-21):2009 RA 2023
9	Sulphates as SO <sub>4</sub> (mg/l)	6.0	72.0	400	APHA (24th Edition ):4110B
10	Phosphates (as P), mg/l	<0.05	<0.05	-	IS 3025 (P-31) Sec 1 2022 1976
11	Chloride (as Cl),mg/l	26.0	130	600	IS:3025(Part-32) 1988RA2019
12	Fluoride (as F),mg/l	0.35	0.81	1.5	IS 3025 (Part 60-Sec1) 2023
13	Sulphide (as H <sub>2</sub> S), mg/l	<0.01	<0.01	-	IS:3025 (P-29) 2022
14	Boron (as B), mg/l	<0.1	<0.1	-	IS:3025 (Part-57) 2021
15	Iron (as Fe),mg/l	<0.005	<0.005	50	IS 3025 (Part 65) 2022
16	Percent of Sodium (%)	25.0	23.0	-	IS 2488 part 5
17	Residual Sodium Carbonate (meq/l)	<0.5	<0.5	-	IS 11624 .2009
18	Total Coliform, MPN/100ml	20	31	5000	IS 15185 2016 RA 2021

""END OF REPORT""

  
BINU MANI

TM - Microbiology  
Govt Analyst/Authorised Signatory

  
ARSHIYA KOUSAR

Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 21

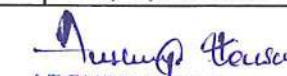
Name of the Client	: The Sandur Manganese & Iron Ores Limited
Name of the Project	: Mining Lease No. 2678
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of sample	: Ground water
Sample Location	: GW1 - Deogiri Mine Office Bore water, GW2 - Borewell near Kumarswamy temple, GW3 - Appayyanahalli (Narayanpura) Bore water
Date of sample collection	: 08.12.2025
Date of sample receipt	: 09.12.2025
Issue Date	: 02.01.2026
Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)	

Sl. No.	Report No	M001225122	M001325122	M001425122	Desirable Limits	Permissible Limits	Method of Testing
	Sample Code	GW1	GW2	GW3			
	Parameters	Results					
1	Colour (Hazen Units)	1	1	1	5	15	IS:3025 (P-4) 2021
2	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	IS:3025 (P-5) 2018
3	pH Value	6.96	6.90	7.84	6.5 to 8.5	6.5 - 8.5	IS:3025 (P-11)2022
4	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	IS:3025 (P- 8) 2023
5	Turbidity,NTU	1.00	1.37	0.80	1	5	IS:3025 (P-10) 2023
6	Total Dissolved Solids,mg/l	92.0	226.0	1140.0	500	2000	IS:3025 (P-16) 2023
7	Aluminium (as Al)	<0.005	<0.005	<0.005	0.03	0.2	IS:3025 (P-55) 2022
8	Ammonia (as total Ammonia -N),mg/l	<0.1	<0.1	<0.1	0.5	0.5	IS:3025 (P-34)1 Sec 1 2023
9	Anionic Detergents (as MBAS),mg/l	<0.1	<0.1	<0.1	0.2	1.0	IS:3025 (P-68) 2023
10	Barium (as Ba), mg/l	<0.005	<0.005	<0.005	0.7	0.7	IS:3025(P-65) 2022
11	Boron (as B), mg/l	<0.1	<0.1	<0.1	0.5	2.4	IS:3025 (Part-57) 2021
12	Calcium (as Ca),mg/l	9.00	29.60	176.30	75	200	IS:3025 (P-40) 2021
13	Chloramines as Cl <sub>2</sub>	<0.1	<0.1	<0.1	4	4	Clause 6 of IS 3025 (P-26) 2021
14	Chloride as Cl (mg/l)	21.00	30.00	200.00	250	1000	IS:3025 (P-32)1988 RA 2019
15	Copper (as Cu),mg/l	<0.0005	<0.0005	<0.0005	0.05	1.5	IS:3025 (P-65) 2022
16	Fluoride (as F),mg/l	0.28	0.36	0.70	1	1.5	IS:3025 (P-60) Sec 2022
17	Residual, Free Chlorine,mg/l	<0.1	<0.1	<0.1	0.2	1	IS:3025 (P-26) 2021
18	Iron (as Fe),mg/l	<0.005	<0.005	<0.005	1.0	1.0	IS:3025 (Part-65) 2022
19	Magnesium (as Mg),mg/l	2.91	22.30	77.70	30	100	IS:3025 (P-46)1 2023
20	Manganese (as Mn),mg/l	<0.001	<0.001	<0.001	0.1	0.3	IS:3025 (P-65) 2022
21	Mineral Oil,mg/l	<0.5	<0.5	<0.5	1.0	1.0	IS:3025 (P-39) 2021
22	Nitrates (as NO <sub>3</sub> ),mg/l	4.60	10.70	38.00	45	45	IS:3025 (P-34) 1988 RA 2019
23	Phenolics (as C <sub>6</sub> H <sub>5</sub> OH),mg/l	<0.001	<0.001	<0.001	0.001	0.002	IS:3025 (P-43) Sec 1 2023
24	Selenium (as Se),mg/l	<0.0005	<0.0005	<0.0005	0.01	0.01	IS:3025(P-65) 2022
25	Silver (as Ag), mg/l	<0.005	<0.005	<0.005	0.1	0.1	IS:3025(P-65) 2022
26	Sulphate (as SO <sub>4</sub> ),mg/l	12.00	36.00	200.00	200	400	IS:3025 (P-24) Sec 1 2022
27	Sulphide (as H <sub>2</sub> S) , mg/l	<0.01	<0.01	<0.01	0.05	0.05	IS:3025 (P-29) 2022
28	Total Alkalinity (as CaCO <sub>3</sub> ) mg/l	26.0	140.0	560.0	200	600	IS:3025 (P-23):2023
29	Total Hardness (as CaCO <sub>3</sub> ),mg/l	37.0	166.0	760.0	200	600	IS:3025 (P-21):2009 RA 2023
30	Zinc (as Zn),mg/l	<0.005	<0.005	<0.005	5	15	IS:3025 (P-65) 2022
31	Cadmium (as Cd),mg/l	<0.0005	<0.0005	<0.0005	0.003	0.003	IS:3025 (P-65) 2022
32	Cyanide (as CN),mg/l	<0.01	<0.01	<0.01	0.05	0.05	IS:3025 (P-27)Sec 1 2021
33	Lead (as Pb),mg/l	<0.0005	<0.0005	<0.0005	0.01	0.01	IS:3025 (P-65) 2022
34	Mercury (as Hg),mg/l	<0.0005	<0.0005	<0.0005	0.001	0.001	IS:3025 (P-65) 2022
35	Molybdenum (as Mo), mg/l	<0.0005	<0.0005	<0.0005	0.07	0.07	IS:3025 (P-65) 2022
36	Nickel (as Ni),mg/l	<0.01	<0.01	<0.01	0.02	0.02	IS:3025 (P-65) 2022
37	Arsenic (as As),mg/l	<0.0005	<0.0005	<0.0005	0.01	0.01	IS:3025 (P-65) 2022
38	Total Chromium (as Cr),mg/l	<0.001	<0.001	<0.001	0.05	0.05	IS:3025 (P-65) 2022
39	Escherichia coli/100ml	Not Detected	Not Detected	Not Detected	Shall not be detectable in any 100ml Sample		IS:15185:2016 RA 2021
40	Total Coliform /100ml	Not Detected	Not Detected	Not Detected			IS:15185:2016 RA 2021
41	Electrical Conductivity (μmhos/cm)	170.0	420.0	2000.0	-	-	IS 3025 (P-14) 2013 RA 2023

"END OF REPORT"

  
BINU MANI

TM - Microbiology  
Govt Analyst/Authorised Signatory

  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 22

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2678  
Location : Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Nature of sample : Ground water  
Sample Location : GW4 - SB Halli Bore water (near hospital),  
GW5 - Yeshwanthnagar Bore water (near railway track)  
Date of sample collection : 08.12.2025  
Date of sample receipt : 09.12.2025  
Issue Date : 02.01.2026  
Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)

Sl. No.	Report No		Desirable Limts	Permissible Limts	Method of Testing
	Sample Code	Parameters			
1	Colour (Hazen Units)	<1	5	15	IS:3025 (P-4) 2021
2	Odour	Agreeable	Agreeable	Agreeable	IS:3025 (P-5) 2018
3	pH Value	6.70	6.5 to 8.5	6.5 - 8.5	IS:3025 (P-11) 2022
4	Taste	Agreeable	Agreeable	Agreeable	IS:3025 (P-8) 2023
5	Turbidity, NTU	<0.1	1	5	IS:3025 (P-10) 2023
6	Total Dissolved Solids, mg/l	286.0	500	2000	IS:3025 (P-16) 2023
7	Aluminium (as Al)	<0.005	0.03	0.2	IS:3025 (P-55) 2022
8	Ammonia (as total Ammonia -N), mg/l	<0.1	0.5	0.5	IS:3025 (P-34) 1 Sec 1 2023
9	Anionic Detergents (as MBAS), mg/l	<0.1	0.2	1.0	IS:3025 (P-68) 2023
10	Barium (as Ba), mg/l	<0.005	0.7	0.7	IS:3025 (P-65) 2022
11	Boron (as B), mg/l	<0.1	0.5	2.4	IS:3025 (Part-57) 2021
12	Calcium (as Ca), mg/l	48.10	75	200	IS:3025 (P-40) 2021
13	Chloramines as C12	<0.1	4	4	Clause 6 of IS 3025 (P-26) 2021
14	Chloride as Cl (mg/l)	50.00	250	1000	IS:3025 (P-32) 1988 RA 2019
15	Copper (as Cu), mg/l	<0.0005	0.05	1.5	IS:3025 (P-65) 2022
16	Fluoride (as F), mg/l	0.41	1	1.5	IS:3025 (P-60) Sec 2022
17	Residual, Free Chlorine, mg/l	<0.1	0.2	1	IS:3025 (P-26) 2021
18	Iron (as Fe), mg/l	<0.005	1.0	1.0	IS:3025 (Part-65) 2022
19	Magnesium (as Mg), mg/l	19.40	30	100	IS:3025 (P-46) 1 2023
20	Manganese (as Mn), mg/l	<0.001	0.1	0.3	IS:3025 (P-65) 2022
21	Mineral Oil, mg/l	<0.5	1.0	1.0	IS:3025 (P-39) 2021
22	Nitrates (as NO <sub>3</sub> ), mg/l	18.60	45	45	IS:3025 (P-34) 1988 RA 2019
23	Phenolics (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	<0.001	0.001	0.002	IS:3025 (P-43) Sec 1 2023
24	Selenium (as Se), mg/l	<0.0005	0.01	0.01	IS:3025 (P-65) 2022
25	Silver (as Ag), mg/l	<0.005	0.1	0.1	IS:3025 (P-65) 2022
26	Sulphate (as SO <sub>4</sub> ), mg/l	60.00	200	400	IS:3025 (P-24) Sec 1 2022
27	Sulphide (as H <sub>2</sub> S), mg/l	<0.01	0.05	0.05	IS:3025 (P-29) 2022
28	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l	130.0	200	600	IS:3025 (P-23):2023
29	Total Hardness (as CaCO <sub>3</sub> ), mg/l	200.0	200	600	IS:3025 (P-21):2009 RA 2023
30	Zinc (as Zn), mg/l	<0.005	5	15	IS:3025 (P-65) 2022
31	Cadmium (as Cd), mg/l	<0.0005	0.003	0.003	IS:3025 (P-65) 2022
32	Cyanide (as CN), mg/l	<0.01	0.05	0.05	IS:3025 (P-27) Sec 1 2021
33	Lead (as Pb), mg/l	<0.0005	0.01	0.01	IS:3025 (P-65) 2022
34	Mercury (as Hg), mg/l	<0.0005	0.001	0.001	IS:3025 (P-65) 2022
35	Molybdenum (as Mo), mg/l	<0.0005	0.07	0.07	IS:3025 (P-65) 2022
36	Nickel (as Ni), mg/l	<0.01	0.02	0.02	IS:3025 (P-65) 2022
37	Arsenic (as As), mg/l	<0.0005	0.01	0.01	IS:3025 (P-65) 2022
38	Total Chromium (as Cr), mg/l	<0.001	0.05	0.05	IS:3025 (P-65) 2022
39	Escherichia coli/100ml	Not Detected	Not Detected	Shall not be detectable in any 100ml Sample	
40	Total Coliform /100ml	Not Detected	Not Detected		
41	Electrical Conductivity (µmhos/cm)	520.0	2600.0	-	IS 3025 (P-14) 2013 RA 2023

"END OF REPORT"

BINU MANI

TM - Microbiology  
Govt Analyst/Authorised Signatory

ARSHIYA KOUSAR

Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 23

Table No. 2

Name of the Client	: The Sandur Manganese & Iron Ores Limited					
Name of the Project	: Mining Lease No. 2678					
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.					
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
Nature of sample	: Drinking water					
Sample Location	: DW1 - Drinking Water Deogiri Near Office					
	: DW2 - Drinking Water Subbarayanahalli Near Office					
Issue Date	: 02.01.2026					
Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)						
Date of sample collection		08.12.2025	08.12.2025	Desirable Limits	Permissible Limits	Method of Testing
Date of sample receipt		09.12.2025	09.12.2025			
Report No		M001725122	M001825122			
Sl. No.	Sample Code	DW1	DW2			
	Parameters	Results				
1	Colour (Hazen Units)	<1	<1	5	15	IS:3025 (P-4) 2021
2	Odour	Agreeable	Agreeable	Agreeable	Agreeable	IS:3025 (P-5) 2018
3	pH Value	6.55	6.96	6.5 to 8.5	6.5 - 8.5	IS:3025 (P-11)2022
4	Taste	Agreeable	Agreeable	Agreeable	Agreeable	IS:3025 (P- 8) 2023
5	Turbidity,NTU	<0.1	0.6	1	5	IS:3025 (P-10) 2023
6	Total Dissolved Solids,mg/l	98.0	250.0	500	2000	IS:3025 (P-16) 2023
7	Calcium (as Ca),mg/l	11.20	36.00	75	200	IS:3025 (P-40) 2021
8	Chloride as Cl (mg/l)	18.00	46.00	250	1000	IS:3025 (P-32)1988 RA 2019
9	Fluoride (as F),mg/l	<0.1	<0.1	1	1.5	IS:3025 (P-60) Sec1 2022
10	Iron (as Fe),mg/l	<0.005	<0.005	1.0	1.0	IS:3025 (Part-2) 2022
11	Magnesium (as Mg)mg/l	5.34	17.00	30	100	IS:3025 (P-46) 2023
12	Nitrates (as NO <sub>3</sub> ),mg/l	3.80	9.70	45	45	IS:3025 (P-34) Sec 1 2023
13	Sulphate (as SO <sub>4</sub> ),mg/l	9.40	36.00	200	400	IS:3025 (P-24) Sec 1 2022
14	Total Alkalinity (as CaCO <sub>3</sub> ) mg/l	48.0	140.00	200	600	IS:3025 (P-23):2023
15	Total Hardness (as CaCO <sub>3</sub> ),mg/l	50.0	160.0	200	600	IS:3025 (P-21):2009 RA 2019
16	Electrical Conductivity (µmhos/cm)	160.0	460.0	—	—	IS 3025 (P-14) : 2013RA 2023
17	Escherichia coli/100ml	Not Detected	Not Detected	Shall not be detectable in any 100ml Sample		IS:15185:2016 RA 2021
18	Total Coliform /100ml)	Not Detected	Not Detected			IS:15185:2016 RA 2021

"END OF REPORT"

  
BINU MANI  
TM - Microbiology  
Govt Analyst/Authorised Signatory

  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT


Table No. 24

Table No. 2

Name of the Client	: The Sandur Manganese & Iron Ores Limited					
Name of the Project	: Mining Lease No. 2678					
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.					
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
Nature of sample	: Drinking water					
Sample Location	: W1 - GSIWTP 150 KLD In let water Deogiri					
	: W2 - GSIWTP 150 KLD Out let water Deogiri					
Issue Date	: 02.01.2026					
Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)						
Date of sample collection		06.12.2025	06.12.2025	Desirable Limits	Permissible Limits	Method of Testing
Date of sample receipt		08.12.2025	08.12.2025			
Report No		M000725122	M000825122			
Sl. No.	Sample Code	DW1	DW2			
	Parameters	Results				
1	Colour (Hazen Units)	1	3	5	15	IS:3025 (P-4) 2021
2	Odour	Agreeable	Agreeable	Agreeable	Agreeable	IS:3025 (P-5) 2018
3	pH Value	5.92	8.96	6.5 to 8.5	6.5 - 8.5	IS:3025 (P-11)2022
4	Taste	Agreeable	Agreeable	Agreeable	Agreeable	IS:3025 (P- 8) 2023
5	Turbidity,NTU	3.5	28.0	1	5	IS:3025 (P-10) 2023
6	Total Dissolved Solids,mg/l	58.0	102.0	500	2000	IS:3025 (P-16) 2023
7	Calcium (as Ca),mg/l	5.61	16.00	75	200	IS:3025 (P-40) 2021
8	Chloride as Cl (mg/l)	16.00	14.00	250	1000	IS:3025 (P-32)1988 RA 2019
9	Fluoride (as F),mg/l	<0.1	<0.1	1	1.5	IS:3025 (P-60) Sec1 2022
10	Iron (as Fe),mg/l	<0.005	<0.005	1.0	1.0	IS:3025 (Part-2) 2022
11	Magnesium (as Mg)mg/l	2.43	5.34	30	100	IS:3025 (P-46) 2023
12	Nitrates (as NO <sub>3</sub> ),mg/l	9.50	12.60	45	45	IS:3025 (P-34) Sec 1 2023
13	Sulphate (as SO <sub>4</sub> ),mg/l	16.00	16.00	200	400	IS:3025 (P-24) Sec 1 2022
14	Total Alkalinity (as CaCO <sub>3</sub> ) mg/l	12.0	60.00	200	600	IS:3025 (P-23):2023
15	Total Hardness (as CaCO <sub>3</sub> ),mg/l	24.0	62.0	200	600	IS:3025 (P-21):2009 RA 2019
16	Electrical Conductivity (µmhos/cm)	105.0	190.0	—	—	IS 3025 (P-14) : 2013RA 2023
17	Escherichia coli/100ml	Not Detected	Not Detected	Shall not be detectable in any 100ml Sample		IS:15185:2016 RA 2021
18	Total Coliform /100ml)	Not Detected	Not Detected			IS:15185:2016 RA 2021

"END OF REPORT"

  
BINU MANI  
TM - Microbiology  
Govt Analyst/Authorised Signatory

  
ARSHIYA KHUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 25

TABLE NO. 2

Name of the Client	: The Sandur Manganese & Iron Ores Limited						
Name of the Project	: Mining Lease No. 2678						
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.						
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)						
Nature of Samples	: Soil Samples						
Date of sample collection	: 09.12.2025						
Date of sample receipt	: 10.12.2025						
Issue Date	: 02.01.2026						
Report No			M003525122	M003625122	M003725122	M003825122	M003925122
SL. No.	Sample Code		S1	S2	S3	S4	S5
	Parameters	Unit	Results				
Physical Properties							
1	Colour	—	Red Soil	Red Soil	Red Soil	Red Soil	Red Soil
2	Textural class	—	Clay Loam	Sandy Loam	Clay Loam	Clay Loam	Clay Loam
3	Size Distribution						
	Sand	%	30.65	32.46	31.42	31.62	32.55
	Clay	%	21.85	24.22	28.22	30.12	25.32
	Silt	%	47.5	43.32	40.36	38.26	42.13
4	Moisture Content	%	7.24	7.28	7.31	7.48	7.42
5	Bulk Density	gm/cc	1.63	1.63	1.45	1.72	1.63
6	Water holding capacity	%	26.22	30.25	21.31	28.26	22.45
7	pH	—	6.18	6.25	7.51	7.49	6.66
8	EC	m.mohs/cm	0.175	0.253	0.241	0.288	0.182
Chemical Properties							
9	Organic Carbon	%	0.63	0.28	0.21	0.29	1.82
10	Nitrogen as N	Kg/Ha	113	180	115	163	182
11	Phosphorous as P	Kg/Ha	6.12	8.16	7.12	7.38	7.62
12	Potassium as K <sub>2</sub> O	Kg/Ha	180	120	113	148	163
13	Sodium as Na	mg/kg	20	30	29	37	24
14	Chloride as Cl	mg/kg	120	124	133	142	128
15	Sulphate as SO <sub>4</sub>	mg/kg	25	29	24	31	26
Sample Location							
S1 - Top soil (Kammathuru)							
S2 - Top soil (Deogiri)							
S3 - Top soil (SB Halli)							
S4 - Active Dump (Deogiri)							
S5 - Active Dump (SB Halli)							

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 26

Table No. 2

Name of the Client			: The Sandur Manganese & Iron Ores Limited				
Name of the Project			: Mining Lease No. 2678				
Location			: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.				
Sample Collected by			: Environmental Laboratory (Unit of Mineral Engineering Services LLP)				
Nature of Samples			: Soil Samples				
Date of sample collection			: 09.12.2025				
Date of sample receipt			: 10.12.2025				
Issue Date			: 02.01.2026				
Report No			M004025122	M004125122	M004225122	M004325122	M004425122
SL. No.	Sample Code		S6	S7	S8	S9	S10
	PARAMETERS	Unit	Results				
Physical Properties							
1	Colour	—	Red Soil	Red Soil	Red Soil	Red Soil	Red soil
2	Textural class	—	Clay Loam	Clay Loam	Slity Clay	Slity Clay	Clay Loam
3	Size Distribution						
	Sand	%	32.68	31.85	32.14	32.96	35.85
	Clay	%	27.23	26.2	28.25	28.22	30.21
	Silt	%	40.09	41.95	39.61	38.82	33.94
4	Moisture Content	%	6.82	7.12	6.80	6.33	7.55
5	Bulk Density	gm/cc	1.66	2.83	7.12	6.62	7.05
6	Water holding capacity	%	32.46	26.21	26.35	30.25	35.8
7	pH	—	7.28	7.38	7.25	6.91	7.40
8	EC	m.mohs/cm	0.493	0.558	0.615	0.295	0.266
Chemical Properties							
9	Organic Carbon	%	0.84	0.62	0.67	0.80	0.42
10	Nitrogen as N	Kg/Ha	135	140	122	150	136
11	Phosphorous as P	Kg/Ha	30	33	30	60	50
12	Potassium as K <sub>2</sub> O	Kg/Ha	138	148	124	153	140
13	Sodium as Na	mg/kg	43	34	33	30	35
14	Chloride as Cl	mg/kg	33	31	30	25	32
15	Sulphate as SO <sub>4</sub>	mg/kg	32	33	34	32	30
Sample Location							
S6 - Appayyanahalli agriculture lan							
S7 - Vitthalanagar agriculture land							
S8 - Swamihalli agriculture land							
S9 -Tonasigere agriculture land							
S10 - Yeshwanthnagar agriculture land							

*Arshiyakousar*  
ARSHIYAKOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 27

### Stack Monitoring Report

Name of the Client	: The Sandur Manganese & Iron Ores Limited			
Name of the Project	: Subrayanahalli Manganese & Iron Ore Mine (ML NO. 2678)			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)			
Sample Location	: KVH Iron Ore Mines			
Stack ID & Capacity	: DG 1010 KVA (808 KW)			
Instrument used for sampling	: Emissions collected through stack sampler			
Date of Collection	: 06.12.2025			
Date of Sample Receipt	: 07.12.2025			
Report No	: N000125122			
Issue date	: 02.01.2026			
<b>STACK DETAILS</b>				
1	Fuel Used	Diesel		
2	Ambient Temperature ( $^{\circ}\text{C}$ )	26		
3	Stack Temperature ( $^{\circ}\text{C}$ )	182		
4	Velocity (m/s)	12.90		
5	Stack diameter (M)	0.30		
6	Quantity of flue Gas Discharged into atmosphere ( $\text{Nm}^3/\text{hr}$ )	3202		
7	Sample Condition When Received	Satisfactory		
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1		
9	Serial No. of the Equipment	338 DTH 14		
10	Calibration due date	17.07.2026		
11	Test Method	IS 11255 & flue gas analyser		
<b>Pollutional Parameters (Result)</b>				
Sl.No	Parameters	Unit	Results	Standard
1	NO <sub>x</sub> (as NO <sub>2</sub> ) (as 15% O <sub>2</sub> ), dry basis	ppmv	26.22	360
2	NMHC (as C) (at 15 % O <sub>2</sub> )	mg/Nm <sup>3</sup>	36.00	100
3	PM (as C) (at 15 % O <sub>2</sub> )	mg/Nm <sup>3</sup>	48.00	75
4	CO (at 15 % O <sub>2</sub> )	(mg/Nm <sup>3</sup> )	54.00	150

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

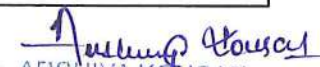
## TEST REPORT

Table No. 28

### Stack Monitoring Report

Name of the Client	: The Sandur Manganese & Iron Ores Limited			
Name of the Project	: Subrayanahalli Manganese & Iron Ore Mine (ML NO. 2678)			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)			
Sample Location	: KVH IO MINES - SB HALLI			
Stack ID & Capacity	: 10 KVA TOWER LIGHT DG - Lighting			
Instrument used for sampling	: Emissions collected through stack sampler			
Date of Collection	: 06.12.2025			
Date of Sample Receipt	: 07.12.2025			
Report No	: N000225122			
Issue date	: 02.01.2026			
<b>STACK DETAILS</b>				
1	Fuel Used	Diesel		
2	Ambient Temperature (°C)	26		
3	Stack Temperature (°C)	142		
4	Velocity (m/s)	7.88		
5	Stack diameter (M)	0.15		
6	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	348		
7	Sample Condition When Received	Satisfactory		
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1		
9	Serial No. of the Equipment	338 DTH 14		
10	Calibration due date	17.07.2026		
11	Test Method	IS 11255 & flue gas analyser		
<b>Pollutional Parameters (Result)</b>				
Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.104	<0.2
2	CO	g/Kw-hr	0.213	<3.5
3	Nox +HC	g/Kw-hr	0.973	<4.0

INFERENCE	as per KSPCB
	Report Status - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

  
 ARSHIYA KOUSAR  
 Dy.TM - Chemical  
 Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 29

### Stack Monitoring Report

Name of the Client	: The Sandur Manganese & Iron Ores Limited
Name of the Project	: Subrayanahalli Manganese & Iron Ore Mine (ML NO. 2678)
Sample Location	: KVH IO MINES - SB HALLI
Stack ID & Capacity	: 10KVA DG Sert - Water pumping
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Instrument used for sampling	: Emissions collected through stack sampler
Date of Collection	: 06.12.2025
Date of Sample Receipt	: 07.12.2025
Report No	: N000325122
Issue date	: 02.01.2026

#### STACK DETAILS

1	Fuel Used	Diesel
2	Ambient Temperature (°C)	27
3	Stack Temperature (°C)	148
4	Velocity (m/s)	7.11
5	Stack diameter (M)	0.15
6	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	310
7	Sample Condition When Received	Satisfactory
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
9	Serial No. of the Equipment	86 BTF 12
10	Calibration due date	17.07.2026
11	Test Method	IS 11255 & flue gas analyser

#### Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.111	<0.2
2	CO	g/Kw-hr	0.461	<3.5
3	Nox +HC	g/Kw-hr	1.180	<4.0

#### INFERENCE

as per KSPCB

**Report Status** - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 30

### Stack Monitoring Report

Name of the Client	: The Sandur Manganese & Iron Ores Limited
Name of the Project	: Kammathuru Iron Ore (KTIO) (ML No. 2678)
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Sample Location	: KTIO D-04 DUMP
Stack ID & Capacity	: 7.5 KVA DG SET (Open DG) - Lighting
Instrument used for sampling	: Emissions collected through stack sampler
Date of Collection	: 08.12.2025
Date of Sample Receipt	: 09.12.2025
Report No	: N000425122
Issue date	: 02.01.2026

#### STACK DETAILS

1	Fuel Used	Diesel
2	Ambient Temperature (°C)	28
3	Stack Temperature (°C)	144
4	Velocity (m/s)	6.70
5	Stack diameter (M)	0.15
6	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	294
7	Sample Condition When Received	Satisfactory
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
9	Serial No. of the Equipment	86 BTF 12
10	Calibration due date	17.07.2026
11	Test Method	IS 11255 & flue gas analyser

#### Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.098	<0.2
2	CO	g/Kw-hr	0.392	<3.5
3	Nox +HC	g/Kw-hr	0.871	<4.0

#### INFERENCE

as per KSPCB

**Report Status** - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.31

### Stack Monitoring Report

Name of the Client	: The Sandur Manganese & Iron Ores Limited
Name of the Project	: Deogiri Manganese & Iron Ore Mine (ML NO. 2678)
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Sample Location	: BMM Plot
Stack ID & Capacity	: 35 KVA DG SET - Lighting
Instrument used for sampling	: Emissions collected through stack sampler
Date of Collection	: 08.12.2025
Date of Sample Receipt	: 09.12.2025
Report No	: N000525122
Issue date	: 02.01.2026

#### STACK DETAILS

1	Fuel Used	Diesel
2	Ambient Temperature (°C)	28
3	Stack Temperature (°C)	130
4	Velocity (m/s)	8.72
5	Stack diameter (M)	0.15
6	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	396
7	Sample Condition When Received	Satisfactory
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
9	Serial No. of the Equipment	338 DTH 14
10	Calibration due date	17.07.2026
11	Test Method	IS 11255 & flue gas analyser

#### Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.054	<0.2
2	CO	g/Kw-hr	0.045	<3.5
3	Nox +HC	g/Kw-hr	0.249	<4.0

#### INFERENCE

as per KSPCB

Report Status - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

*Arshiya K DUSAR*  
ARSHIYA K DUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 32

### Stack Monitoring Report

Name of the Client	: The Sandur Manganese & Iron Ores Limited			
Name of the Project	: Deogiri Manganese & Iron Ore Mine (ML NO. 2678)			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)			
Sample Location	: K-Kolla W/Pump			
Stack ID & Capacity	: 100 KVA DG SET - Water pumping			
Instrument used for sampling	: Emissions collected through stack sampler			
Date of Collection	: 08.12.2025			
Date of Sample Receipt	: 09.12.2025			
Report No	: N000625122			
Issue date	: 02.01.2026			
<b>STACK DETAILS</b>				
1	Fuel Used	Diesel		
2	Ambient Temperature (°C)	29		
3	Stack Temperature (°C)	142		
4	Velocity (m/s)	8.25		
5	Stack diameter (M)	0.15		
6	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	364		
7	Sample Condition When Received	Satisfactory		
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1		
9	Serial No. of the Equipment	338 DTH 14		
10	Calibration due date	17.07.2026		
11	Test Method	IS 11255 & flue gas analyser		
<b>Pollutional Parameters (Result)</b>				
Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.047	<0.2
2	CO	g/Kw-hr	0.255	<3.5
3	Nox +HC	g/Kw-hr	0.357	<4.0

INFERENCE	as per KSPCB
	Report Status - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

*Arushi Housar*  
ARSHIYA HOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

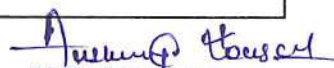
## TEST REPORT

Table No. 33

### Stack Monitoring Report

Name of the Client	: The Sandur Manganese & Iron Ores Limited			
Name of the Project	: Deogiri Manganese & Iron Ore Mine (ML NO. 2678)			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)			
Sample Location	: Deogiri- Work Shop			
Stack ID & Capacity	: 250 KVA DG SET - Lighting			
Instrument used for sampling	: Emissions collected through stack sampler			
Date of Collection	: 09.12.2025			
Date of Sample Receipt	: 10.12.2025			
Report No	: N000725122			
Issue date	: 02.01.2026			
<b>STACK DETAILS</b>				
1	Fuel Used	Diesel		
2	Ambient Temperature (°C)	28		
3	Stack Temperature (°C)	175		
4	Velocity (m/s)	10.13		
5	Stack diameter (M)	0.15		
6	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	414		
7	Sample Condition When Received	Satisfactory		
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1		
9	Serial No. of the Equipment	86 BTF 12		
10	Calibration due date	17.07.2026		
11	Test Method	IS 11255 & flue gas analyser		
<b>Pollutional Parameters (Result)</b>				
Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.029	<0.2
2	CO	g/Kw-hr	0.094	<3.5
3	Nox +HC	g/Kw-hr	0.609	<4.0

INFERENCE	as per KSPCB
	<b>Report Status</b> - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

  
**ARSHIYA KOUSAR**  
 Dy TM.- Chemical  
 Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
 Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028


## TEST REPORT

Table No. 34

### Stack Monitoring Report

Name of the Client	: The Sandur Manganese & Iron Ores Limited			
Name of the Project	: Deogiri Manganese & Iron Ore Mine (ML NO. 2678)			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)			
Sample Location	: Deogiri 86 Quarters			
Stack ID & Capacity	: 35 KVA DG SET - Colony Lighting			
Instrument used for sampling	: Emissions collected through stack sampler			
Date of Collection	: 09.12.2025			
Date of Sample Receipt	: 10.12.2025			
Report No	: N000825122			
Issue date	: 02.01.2026			
<b>STACK DETAILS</b>				
1	Fuel Used	Diesel		
2	Ambient Temperature (°C)	29		
3	Stack Temperature (°C)	136		
4	Velocity (m/s)	8.66		
5	Stack diameter (M)	0.15		
6	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	388		
7	Sample Condition When Received	Satisfactory		
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1		
9	Serial No. of the Equipment	86 BTF 12		
10	Calibration due date	17.07.2026		
11	Test Method	IS 11255 & flue gas analyser		
<b>Pollutional Parameters (Result)</b>				
Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.078	<0.2
2	CO	g/Kw-hr	0.110	<3.5
3	Nox +HC	g/Kw-hr	0.255	<4.0

INFERENCE	as per KSPCB
	<b>Report Status</b> - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

  
**ARSHIYA HOUSAR**  
 Dy TM - Chemical  
 Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 35

### Stack Monitoring Report

Name of the Client	: The Sandur Manganese & Iron Ores Limited			
Name of the Mine	: Kammathuru Iron Ore Mine (KTIO) (ML No. 2678)			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)			
Screening Plant Make & code	: Sandvik Screening & Crushing Plant (MCP- 2)			
Mobile Crusher Capacity	: 500 TPH			
Date of Collection	: 15.12.2025			
Date of Sample Receipt	: 16.12.2025			
Report No	: N00032523			
Issue date	: 02.01.2026			
<b>STACK DETAILS</b>				
1	Fuel Used	Diesel		
2	Stack diameter (M)	0.13		
3	Stack Temperature ( $^{\circ}\text{C}$ )	48		
4	Velocity (m/s)	10.81		
5	Quantity of flue Gas Discharged into atmosphere ( $\text{Nm}^3/\text{hr}$ )	446.00		
6	Sample Condition When Received	Satisfactory		
7	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1		
8	Serial No. of the Equipment	338 DTH 14		
9	Calibration due date	17.07.2026		
10	Test Method	IS 11255		
<b>Pollutional Parameters (Result)</b>				
Sl.No	Parameters	Unit	Results	Permissible limits
1	Particulate Matter	$\text{mg}/\text{Nm}^3$	51	100

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 36

### Stack Monitoring Report

Name of the Client	: The Sandur Manganese & Iron Ores Limited			
Name of the Mine	: Kammathuru Iron Ore Mine (KTIO) (ML No. 2678)			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)			
Screening Plant Make & code	: Keestrak Crushing & Screening Plant (MCP-3)			
Mobile Crusher Capacity	: 350 TPH			
Date of Collection	: 15.12.2025			
Date of Sample Receipt	: 16.12.2025			
Report No	: N00042523			
Issue date	: 02.01.2026			
<b>STACK DETAILS</b>				
1	Fuel Used	Diesel		
2	Stack diameter (M)	0.20		
3	Stack Temperature (°C)	40		
4	Velocity (m/s)	9.85		
5	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	986.0		
6	Sample Condition When Received	Satisfactory		
7	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1		
8	Serial No. of the Equipment	338 DTH 14		
9	Calibration due date	17.07.2026		
10	Test Method	IS 11255		
<b>Pollutional Parameters (Result)</b>				
Sl.No	Parameters	Unit	Results	Permissible limits
1	Particulate Matter	mg/Nm <sup>3</sup>	54	100

  
 ARSHIYA KOUSAR  
 Dy TM - Chemical  
 Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
 Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 37

### Stack Monitoring Report

Name of the Client	:The Sandur Manganese & Iron Ores Limited			
Name of the Mine	: Subrayanahalli Manganese & Iron Ore Mine (ML NO. 2678)			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)			
Sample Location	: KVH			
Screening Plant Make & code	: Sandvik Screening & Crushing Plant (MCP - 1)			
Mobile Crusher Capacity	: 500 TPH			
Date of Collection	: 15.12.2025			
Date of Sample Receipt	: 16.12.2025			
Report No	: N00052523			
Issue date	: 02.01.2026			
<b>STACK DETAILS</b>				
1	Fuel Used	Diesel		
2	Stack diameter (M)	0.13		
3	Stack Temperature ( $^{\circ}$ C)	52		
4	Velocity (m/s)	11.92		
5	Quantity of flue Gas Discharged into atmosphere ( $\text{Nm}^3/\text{hr}$ )	786.00		
6	Sample Condition When Received	Satisfactory		
7	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1		
8	Serial No. of the Equipment	338 DTH 14		
9	Calibration due date	17.07.2026		
10	Test Method	IS 11255		
<b>Pollutional Parameters (Result)</b>				
Sl.No	Parameters	Unit	Results	Permissible limits
1	Particulate Matter	$\text{mg}/\text{Nm}^3$	57	100

  
 ARSHIYA KOUSAR  
 Dy TM - Chemical  
 Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
 Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 38

### Stack Monitoring Report

Name of the Client	:The Sandur Manganese & Iron Ores Limited			
Name of the Mine	: ML NO. 2678			
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)			
Screening Plant Make & code	: Terex Screening Plant (MSP - 2)			
Mobile Crusher Capacity	: 350 TPH			
Date of Collection	: 16.12.2025			
Date of Sample Receipt	: 17.12.2025			
Report No	: N00062523			
Issue date	: 02.01.2026			
<b>STACK DETAILS</b>				
1	Fuel Used			Diesel
2	Stack diameter (M)			0.20
3	Stack Temperature (°C)			48
4	Velocity (m/s)			11.92
5	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)			1165.0
6	Sample Condition When Received	Satisfactory		
7	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1		
8	Serial No. of the Equipment	86BTF12		
9	Calibration due date	17.07.2026		
10	Test Method	IS 11255		
<b>Pollutional Parameters (Result)</b>				
Sl.No	Parameters	Unit	Results	Permissible limits
1	Particulate Matter	mg/Nm <sup>3</sup>	60	100

  
 ARSHIYA KOUSAR  
 Dy TM - Chemical  
 Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No.39

### Stack Monitoring Report

Name of the Client	:The Sandur Manganese & Iron Ores Limited		
Name of the Mine	: ML NO. 2678		
Location	: Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur Tq, Ballari Dt.		
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)		
Date of Collection	: 16.12.2025		
Date of Sample Receipt	: 17.12.2025		
Issue date	: 02.01.2026		
<b>STACK DETAILS</b>			
Screening Plant Make & code		Keestrak Screening Plant (MSP-1)	Keestrak Screening Plant (MSP-3)
Report No		N00072523	N00082523
1	Fuel Used	Diesel	Diesel
2	Capacity	600 TPH	350 TPH
3	Stack diameter (M)	0.20	0.20
4	Stack Temperature (°C)	45	52
5	Velocity (m/s)	11.63	11.89
6	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	1146.0	1148.0
7	Sample Condition When Received	Satisfactory	
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1	
9	Serial No. of the Equipment	86BTF12	
10	Calibration due date	17.07.2026	
11	Test Method	IS 11255	
<b>Pollutional Parameters (Result)</b>			
Sl.No	Parameters	Unit	Results
1	Particulate Matter	mg/Nm <sup>3</sup>	53      66
Permissible limits		mg/Nm <sup>3</sup>	100

  
 ARSHIYA KOUSAR  
 Dy TM - Chemical  
 Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 40

### RESULTS OF RESIPARBLE AIR-BORNE DUST SURVEY

Name of the Owner		: Sandur Manganese & Iron Ores Limited									
Name of the Mine		: Deogiri Manganese & Iron Ore Mine (ML NO. 2678) (CBG)									
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services LLP)									
Issue Date		: 02.01.2026									
SL. NO	DATE OF SAMPLE COLLECTION	Filter paper code	Report No	LOCATION / CATEGORY	Name of the person	DURATION OF SAMPLING			Volume of air (Lts)	DUST CONCENTRATION mg/m <sup>3</sup> RPM	*PERMISSIBLE LIMIT mg/m <sup>3</sup>
						FROM	TO	TOTAL HRS			
PERSONAL SAMPLER											
1	08.12.2025	A-174	FS000125122	Wheel Loader operator(Hindustan)	Anjini N H	08:45	16:30	7:45	662.6	0.80	1
2	08.12.2025	A-175	FS000225122	Komatsu Excavator operator 475 at Loading point	Anil Kumar Singh	08:55	16:45	7:50	669.8	0.85	1
3	08.12.2025	A-176	FS000325122	Truck Driver KA35 D- 8662	Ajay Singh	09:10	16:50	7:40	1115.5	0.54	1
STATIC SAMPLER											
4	08.12.2025	A-178	FS000525122	Haulage Road	Static	9:20	17:05	7:45	646.4	0.93	1
5	08.12.2025	A-179	FS000625122	Dumping Point	Static	9:40	17:30	7:50	653.3	0.83	1
PERSONAL SAMPLER											
6	09.12.2025	A-177	FS000425122	Truck Driver KA-35 D-8672	Mahammed Irhsad	09:00	16:55	7:55	653.1	0.61	1
7	09.12.2025	A-182	FS001525122	Mine Mate	Anand Rao	09:15	17:00	7:45	639.4	0.78	1
8	09.12.2025	A-183	FS001625122	Gangman work	Honnuruswamy	09:20	17:05	7:45	639.4	0.63	1
9	09.12.2025	A-185	FS001725122	Dump Spotter	Naga Shankar	09:30	17:10	7:40	655.5	0.76	1
STATIC SAMPLER											
10	09.12.2025	A-180	FS001225122	Mobile screening	Static	9:35	17:20	7:45	930.0	0.86	1
11	09.12.2025	A-181	FS001325122	Loading Point	Static	9:50	17:25	7:35	796.3	0.75	1
12	09.12.2025	A-184	FS001425122	Working Face	Static	9:55	17:35	7:40	805.0	0.50	1
*Note: Free Silica Analysis report for Deogiri Manganese & Iron Ore Mine (ML NO. 2678) (CBG) show less than 5% Free silica											
the permissible limit for dust concentration shall be 1 mg/m <sup>3</sup> (Ref : DGMS (Tech) Circular (MAMID) /08 Dated 29.04.2020)											

*Arshiya Housar*  
ARSHIYA HOUSAR  
Dy. TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in





# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 41

### Free Silica Analysis Report

Name of the Owner : Sandur Manganese & Iron Ores Limited					
Name of the Mine : Deogiri Manganese & Iron Ore Mine (ML NO. 2678) (CBG)					
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
Issue Date : 02.01.2026					
SL.NO	DATE OF SAMPLE COLLECTION	LOCATION / CATEGORY	Name of the person / Static	Free Silica Content (%)	Free Silica Limits (%)
<b>PERSONAL SAMPLER</b>					
1	08.12.2025	Wheel Loader operator(Hindustan)	Anjini N H	ND	5
2	08.12.2025	Komatsu Excavator operator 475 at Loading point	Anil Kumar Singh	ND	5
3	08.12.2025	Truck Driver KA35 D- 8662	Ajay Singh	ND	5
<b>STATIC SAMPLER</b>					
4	08.12.2025	Haulage Road	Static	ND	5
5	08.12.2025	Dumping Point	Static	ND	5
<b>PERSONAL SAMPLER</b>					
6	09.12.2025	Truck Driver KA-35 D-8672	Mahammed Irhsad	ND	5
7	09.12.2025	Mine Mate	Anand Rao	ND	5
8	09.12.2025	Gangman work	Honnuruswamy	ND	5
9	09.12.2025	Dump Spotter	Naga Shankar	ND	5
<b>STATIC SAMPLER</b>					
10	09.12.2025	Mobile screening	Static		
11	09.12.2025	Loading Point	Static	ND	5
12	09.12.2025	Working Face	Static	ND	5
Note: ND-Not Detected, Detection Level : 0.0005%					

*Arshiya Housar*  
ARSHIYA HOUSAR  
Dy TM - Chemical  
Govt Analyst/Authorised Signatory

Office & Lab Address : # 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in