

The Sandur Manganese & Iron Ores Limited

ole

(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/070426/2678/ 34

07 April 2026

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

Dear Sir,

Sub: Submission of quarterly report pertaining to monitoring of environmental parameters in respect of Mining Lease No. 2678.

Ref: 1. Environmental Clearance No - EC23A001KA158909 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 quarterly environmental monitoring reports (January 2026 to March 2026) from NABET accredited and MoEFCC empaneled Third Party laboratory M/s Mineral Engineering Services as per the stipulated environmental parameters in Environmental Clearance and Consent for Operation-Expansion 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.,

Pathipan P
Sr. General Manager & Agent



Encl: Monitoring Reports

Cc: 1. The Member Secretary, Karnataka State Pollution Control Board, Bengaluru.
2. Integrated Regional Office, MoEF&CC, Bengaluru.

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

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07 April 2026

D. S. S. S.

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Karnataka State Pollution Control Board,
Ward No.25, 4th Main Road,
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Ballari - 583104

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P. P. P.
Pathipan P
Sr. General Manager & Agent



Encl: Monitoring Reports

Cc: 1. The Member Secretary, Karnataka State Pollution Control Board, Bengaluru.
2. Integrated Regional Office, MoEF&CC, Bengaluru.



Submission of Quarterly Reports in respect of Mining Lease No 2678 of The Sandur Manganese

From EPS <eps@sandurgroup.com>

Date Fri 4/10/2026 1:19 PM

To Env Section Regional Office Bengaluru <rosz.bng-mefcc@gov.in>

Cc Parthipan <Parthipan.p@sandurgroup.com>; Environment <environment@sandurgroup.com>

 1 attachment (11 MB)

2678 Quarterly Monitoring Report IRO, MoEF&CC.pdf;

Dear Madam

Please find herewith attached Quarterly Monitoring Reports (January 2026-March 2026) in respect of Mining Lease No 2678 of The Sandur Manganese & Iron Ores Limited for your kind perusal and needful please.

With Regards

	<p>The Sandur Manganese & Iron Ores Limited 'SATYALAYA', Door No.266 (OLD NO.80), Behind Taluka Office, Ward No.1, Palace Road, Sandur -583 119, Ballari District, Karnataka, India</p> <p>Phone 91-8395-283118 www.sandurgroup.com Email : eps@sandurgroup.com</p> <p></p>
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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)

Name of Legal Entity: MINERAL ENGINEERING SERVICES LLP

Signed for and on behalf of NABL




Anuja Anand
Director


N. Venkateswaran
Chief Executive Officer



12th 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 2nd Cross St Thomas Town Post,
Kammanahalli, Bengaluru-560084,
Karnataka.

Subject: Recognition of M/s Environmental Laboratory (Unit of Mineral Engineering Services), 948 2nd 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 2nd 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 (NO₂), Sulphur Dioxide (SO₂), Total Suspended Particulate Matter, Respirable Suspended Particulate Matter (PM₁₀), Ammonia, Carbon monoxide, Chlorine, Lead, Ozone, Benzene Toluene Xylene (BTX), Polycyclic Aromatic Hydrocarbon (PAH) Benzo-a-Pyrene & others and PM_{2.5}.
- 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,

MNSI
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 इंजीन्यरिंग 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 इंजीन्यरिंग 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 इंजीन्यरिंग 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 (एनओ₂), सल्फर डाइऑक्साइड (एसओ₂), कुल निलंबित विविक्त कण, श्वसन योग्य निलंबित कण पदार्थ (पीएम₁₀), अमोनिया, कार्बन मोनोऑक्साइड, क्लोरीन, सीसा, ओजोन, बेंजीन टोल्यूनि जाइलीन (बीटीएक्स), पॉलीसाइक्लिक एरोमैटिक हाइड्रोकार्बन (पीएच) बेंजो-ए-पाइरिन और अन्य और पीएम_{2.5}।
- 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,
 12/6/2024
 प्रभागप्रमुख
 उपकरणीय प्रयोगशाला

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 Months	January to March -2026

Average Monitoring Report

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

&

Accredited by NABL

#948, 2nd Cross, Kammanahalli Main Road,

St Thomas Town Post,

Bangalore- 560 084, Karnataka

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TEST REPORT

Table No. 1

STATISTICAL AIR QUALITY DATA

Name of the Client		: The Sandur Manganese & Iron Ores Limited													
Name of the Project		: Mining Lease No. 2678													
Month		: January to March, 2026													
Code & Station	A1 - Mine Pit (SK) / (CBG)					A2 - Kammathuru (within ML Area)					A3 - Deogiri (within ML Area)				
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO
Min.	6	10	38	21	0.22	7	9	39	20	0.25	7	10	37	21	0.24
10%	9	12	42	23	0.26	8	11	41	22	0.26	9	11	42	23	0.28
25%	9	13	48	27	0.32	9	13	44	23	0.32	9	12	46	25	0.32
50%	11	16	53	28	0.37	10	14	50	28	0.41	11	14	51	27	0.40
75%	12	17	57	32	0.47	13	16	55	30	0.46	12	17	53	30	0.45
98%	15	18	61	35	0.54	15	19	59	34	0.54	15	19	58	34	0.54
Max.	15	18	62	35	0.54	15	19	60	34	0.55	15	20	58	34	0.55
Avg.	11	15	51	29	0.39	11	14	49	27	0.39	11	14	49	27	0.39
SD	2	2	7	4	0.10	2	3	6	4	0.09	2	3	6	3	0.09
No. of obs	26					26					26				
Code & Station	A4 - SBH Plot (Mine Boundary)					AA5 - Subbarayanahalli (within ML Area)									
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO					
Min.	7	10	38	16	0.25	6	9	36	21	0.22					
10%	8	12	40	22	0.26	7	11	40	22	0.30					
25%	9	13	43	25	0.32	9	12	43	24	0.37					
50%	11	15	50	27	0.41	10	14	50	27	0.42					
75%	12	16	53	30	0.45	11	15	54	28	0.51					
98%	14	18	58	34	0.55	15	19	59	33	0.57					
Max.	14	18	59	34	0.55	15	19	60	33	0.57					
Avg.	10	15	48	27	0.39	10	14	49	26	0.42					
SD	2	2	6	4	0.10	2	3	7	3	0.10					
No. of obs	26					26									

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TEST REPORT

Table No. 2

STATISTICAL AIR QUALITY DATA

Name of the Client		: The Sandur Manganese & Iron Ores Limited													
Name of the Project		: Mining Lease No. 2678													
Month		: January to March, 2026													
Code & Station	A6 - Appayyanahalli (Narayanpura)					A7 - Vitalanagar (Navalatti)					A8 - Swamihalli				
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO
Min.	7	9	35	22	0.22	7	11	40	21	0.25	7	10	38	21	0.22
10%	8	11	44	22	0.26	9	12	45	24	0.27	9	13	44	23	0.25
25%	9	12	46	24	0.28	10	13	47	25	0.35	10	13	47	24	0.27
50%	10	14	50	27	0.36	11	15	52	27	0.43	11	15	50	27	0.36
75%	11	16	54	28	0.44	12	16	55	29	0.48	12	16	55	29	0.43
98%	14	17	57	34	0.54	14	19	58	33	0.55	14	18	58	32	0.54
Max.	14	18	58	35	0.55	14	19	58	34	0.55	14	18	58	32	0.55
Avg.	10	14	50	27	0.37	11	15	51	27	0.41	11	15	50	27	0.36
SD	2	2	6	3	0.09	2	2	5	3	0.09	2	2	5	3	0.10
No. of obs	26					26					26				
Code & Station	A9 - Yeswanthanagar					A10 - Tonsigeri									
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO					
Min.	7	10	41	21	<0.20	7	9	38	21	0.20					
10%	9	12	44	23	0.28	9	11	40	23	0.22					
25%	9	13	47	25	0.33	9	12	46	25	0.25					
50%	11	15	50	28	0.42	10	14	50	28	0.33					
75%	12	16	54	30	0.49	12	16	55	30	0.37					
98%	15	19	59	33	0.55	15	19	59	33	0.51					
Max.	15	19	59	33	0.55	15	19	59	33	0.53					
Avg.	11	15	50	28	0.41	10	14	50	27	0.32					
SD	2	2	5	3	0.10	2	3	6	4	0.09					
No. of obs	26					26									

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TEST REPORT

Table No. 3

Fugitive Emission (Average)

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)	
Month	: January to March, 2026
Duration	: 08 Hrs
Code & Station	Particulate mater ($\mu\text{g}/\text{m}^3$)
FA1, Mine Face / Benches	313
FA2, Haulage Road / Service Road	435
FA3, Crushing & Screening Plant	426
FA4, .Mineral Staock Yard / Loading	418
FA5, Active Waste Dump	485


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TEST REPORT

Table No. 4

Fugitive Emission (Average)

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)	
Month	: January to March, 2026
Duration	: 08 Hrs
Particulars of sample collected	Particulate mater ($\mu\text{g}/\text{m}^3$)
FA1, Mine Face / Benches	330
FA2, Haulage Road / Service Road	455
FA3, Crushing & Screening Plant	486
FA4, Mineral Stock Yard / Loading	366
FA5, Active Waste Dump	446

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TEST REPORT

Table No. 5

Fugitive Emission (Average)

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)	
Month	: January to March, 2026
Duration	: 08 Hrs
Particulars of sample collected	Particulate mater ($\mu\text{g}/\text{m}^3$)
FA1, Mine Face / Benches	367
FA2, Haulage Road / Service Road	434
FA3, Crushing & Screening Plant	472
FA4, Mineral Stock Yard / Loading	331
FA5, Active Waste Dump	433


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TEST REPORT

Table No. 6

Analysis Report of Dust Fall Measurement (Average)

Name of the Client	The Sandur Manganese & Iron Ores Limited
Name of the Project	Mining Lease No. 2678
Month	January to March, 2026
Sample Type	Dust Fall
Duration of Monitoring	Three Month

Result

Code	Location	Result
DF1	Deogiri mines office	0.137
DF2	Kammathuru (Near School)	0.132
DF3	Appayyanahalli	0.155
DF4	Subbarayanahalli (Near Hospital)	0.112
DF5	Yeswanthanagar (Near Railway Track)	0.140

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TEST REPORT

Table No. 7

AMBIENT NOISE LEVEL DATA (AVERAGE)

Name of the Client		: The Sandur Manganese & Iron Ores Limited	
Name of the Project		: Mining Lease No. 2678	
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services LLP)	
Particulars of Sample Collected		: Noise levels	
Month		: January to March, 2026	
Sampling		: IS : 9989 & CPCB Guideline	
Code No.	Monitoring stations	Day L _{eq}	Night L _{eq}
Corezone			
N1	Mine Pit (SK/CBG)	61.0	49.0
N2	Kammathuru ML Area	59.0	50.2
N3	Deogiri ML Area	60.5	48.7
N4	SBS Plot (Mine Boundary)	62.8	51.5
N5	SB Halli ML Area	62.4	50.1
N6	Mine area	66.0	51.5
Bufferzone			
N7	Appayanahalli (Narayanapura)	50.18	41.25
N8	Vitthalanagar (Navalatti)	50.12	42.31
N9	Swamihalli	48.53	40.50
N10	Yeshwanthnagar	51.82	43.80
N11	Tonasingeri	48.82	40.70
N12	Kumaraswamy Temple	50.98	41.13


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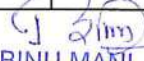
TEST REPORT

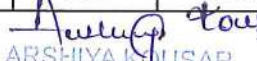
Table No. 8

Surface water Test Report (Average)

Name of the Client	: The Sandur Manganese & Iron Ores Limited
Name of the Project	: Mining Lease No. 2678
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of Sample	: Surface Water
Particulars of sample collected	: SW1 - Durgammakolla spring water : SW2 - JLK spring water : SW3 - Katrasinghkolla spring water : SW4 - Hari Shankar Spring Water : SW5 - Narihalla Dam water
Month	: January to March, 2026
Ref : IS : 2296, Water Quality Standards	

Sl. No.	Parameters	Results				
		Average				
		SW1	SW2	SW3	SW4	SW5
1	pH	7.92	6.79	7.69	6.62	8.39
2	Colour (Hazen Units)	#DIV/0!	1.00	#DIV/0!	1.67	8.33
3	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Total Dissolved Solids (mg/l)	288.67	132.00	128.00	59.33	489.33
5	Total Suspended Solids, mg/l	11.33	9.67	14.83	22.90	64.00
6	Dissolved Oxygen (as O ₂), mg/l	5.53	5.77	5.70	5.80	5.37
7	Biochemical Oxygen Demand (as O ₂), mg/l	<3.0	<3.0	<3.0	<3.0	<3.0
8	Total Hardness (as CaCO ₃), mg/l	182	66	70	35	247
9	Sulphates as SO ₄ (mg/l)	32.67	12.07	10.83	8.37	66.67
10	Phosphates (as P), mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
11	Chloride (as Cl), mg/l	34.33	34.67	51.00	23.67	140.00
12	Fluoride (as F), mg/l	0.35	0.32	0.29	0.27	0.64
13	Sulphide (as H ₂ S), mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
14	Boron (as B), mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
15	Iron (as Fe), mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
16	Percent of Sodium (%)	23.19	20.84	21.47	21.24	23.55
17	Residual Sodium Carbonate (meq/l)	<0.5	<0.5	<0.5	<0.5	<0.5
18	Total Coliform, MPN/100ml	75.33	55.00	66.67	41.67	54.67


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TEST REPORT

Table No. 9

Ground water Test Report (Average)

Name of the Client		: The Sandur Manganese & Iron Ores Limited				
Name of the Project		: Mining Lease No. 2678				
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 GW4 - SB Halli Bore water (near hospital), GW5 - Yeshwanthnagar Bore water (near railway track)				
Month		: January to March, 2026				
Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)						
Sl. No.	Sample Code	GW1	GW2	GW3	GW4	GW5
	Parameters	Results Average				
1	Colour (Hazen Units)	<1	<1	<1	<1	<1
2	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	pH Value	7.10	7.02	7.71	6.99	7.47
4	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity, NTU	0.80	1.63	2.20	1.87	1.83
6	Total Dissolved Solids, mg/l	95.33	188.67	948.00	207.33	1286.00
7	Aluminium (as Al)	<0.005	<0.005	<0.005	<0.005	<0.005
8	Ammonia (as total Ammonia -N), mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
9	Anionic Detergents (as MBAS), mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
10	Barium (as Ba), mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
11	Boron (as B), mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
12	Calcium (as Ca), mg/l	10.94	29.73	146.93	26.93	141.48
13	Chloramines as C12	<0.1	<0.1	<0.1	<0.1	<0.1
14	Chloride as Cl (mg/l)	21.67	43.67	170.00	40.33	363.33
15	Copper (as Cu), mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
16	Fluoride (as F), mg/l	0.32	0.40	0.96	0.53	1.00
17	Residual, Free Chlorine, mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
18	Iron (as Fe), mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
19	Magnesium (as Mg), mg/l	3.40	15.87	66.13	13.93	90.70
20	Manganese (as Mn), mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
21	Mineral Oil, mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
22	Nitrates (as NO ₃), mg/l	4.43	9.07	38.93	9.77	40.77
23	Phenolics (as C ₆ H ₅ OH), mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
24	Selenium (as Se), mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
25	Silver (as Ag), mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
26	Sulphate (as SO ₄), mg/l	10.67	10.67	10.67	10.67	10.67
27	Sulphide (as H ₂ S), mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
28	Total Alkalinity (as CaCO ₃), mg/l	38.00	110.67	355.33	111.67	580.00
29	Total Hardness (as CaCO ₃), mg/l	41.33	139.67	650.00	124.67	846.67
30	Zinc (as Zn), mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
31	Cadmium (as Cd), mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
32	Cyanide (as CN), mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
33	Lead (as Pb), mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
34	Mercury (as Hg), mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
35	Molybdenum (as Mo), mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
36	Nickel (as Ni), mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
37	Arsenic (as As), mg/l	<0.002	<0.002	<0.002	<0.002	<0.002
38	Total Chromium (as Cr), mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
39	Escherichia coli/100ml	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
40	Total Coliform /100ml	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
41	Electrical Conductivity (µmhos/cm)	176.67	350.00	1670.00	383.33	2266.33

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ENVIRONMENTAL LABORATORY

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TEST REPORT

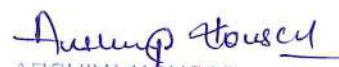
Table No.10

Drinking water Test Report (Average)

Name of the Client	: The Sandur Manganese & Iron Ores Limited		
Name of the Project	: Mining Lease No. 2678		
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		
Month	: January to March, 2026		
Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)			
Sl. No.	Sample Code	GW1	GW2
	Parameters	Results Average	
1	Colour (Hazen Units)	<1	<1
2	Odour	Agreeable	Agreeable
3	pH Value	7.04	7.18
4	Taste	Agreeable	Agreeable
5	Turbidity,NTU	<0.1	<0.1
6	Total Dissolved Solids,mg/l	100.00	225.33
7	Calcium (as Ca),mg/l	10.40	32.67
8	Chloride as Cl (mg/l)	25.67	48.33
9	Fluoride (as F),mg/l	<0.1	<0.1
10	Iron (as Fe),mg/l	<0.005	<0.005
11	Magnesium (as Mg)mg/l	4.41	16.17
12	Nitrates (as NO ₃),mg/l	3.50	8.40
13	Sulphate (as SO ₄),mg/l	4.60	27.33
14	Total Alkalinity (as CaCO ₃) mg/l	44.00	107.00
15	Total Hardness (as CaCO ₃),mg/l	44.00	148.33
16	Electrical Conductivity (µmhos/cm)	187.00	417.33
17	Escherichia coli/100ml	Not Detected	Not Detected
18	Total Coliform /100ml)	Not Detected	Not Detected


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TEST REPORT

Table No.11

Soil Test Report (Average)

Name of the Client		: The Sandur Manganese & Iron Ores Limited					
Name of the Project		: Mining Lease No. 2678					
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
Nature of Sample		: Soil Samples					
Months		: January to March, 2026					
SL. No.	Sample Code		S1	S2	S3	S4	S5
	Parameters	Unit					
			Average				
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	%	31.34	33.57	31.39	31.74	33.78
	Clay	%	24.95	27.51	29.12	30.06	26.81
	Silt	%	43.71	38.92	39.49	38.20	39.41
4	Moisture Content	%	8.07	7.48	8.01	7.74	7.49
5	Bulk Density	gm/cc	1.76	1.74	1.64	1.47	1.81
6	Water holding capacity	%	26.50	31.10	23.32	28.26	23.69
7	pH	--	6.65	6.96	7.26	7.43	6.88
8	EC	m.mohs/cm	0.179	0.254	0.327	0.281	0.230
Chemical Properties							
9	Organic Carbon	%	0.62	0.54	0.47	0.55	1.08
10	Nitrogen as N	Kg/Ha	265	253	255	272	298
11	Phosphorous as P	Kg/Ha	9	10	9	348	9
12	Potassium as K ₂ O	Kg/Ha	138.33	119	113	107	124
13	Sodium as Na	mg/kg	24	27	29	35	22
14	Chloride as Cl	mg/kg	116	117	123	135	122
15	Sulphate as SO ₄	mg/kg	27	30	33	33	27
Sample Location							
S1 - Top soil (Kammathuru)							
S2 - Top soil (Deogiri)							
S3 - Top soil (SB Halli)							
S4 - Active Dump (Deogiri)							
S5 - Active Dump (SB Halli)							

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TEST REPORT

Table No.12

Soil Test Report (Average)

Name of the Client		: The Sandur Manganese & Iron Ores Limited					
Name of the Project		: Mining Lease No. 2678					
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
Nature of Sample		: Soil Samples					
Months		: January to March, 2026					
SL. No.	Sample Code		S6	S7	S8	S9	S10
	PARAMETERS	Unit					
Physical Properties			Average				
1	Colour	--	Red Soil	Red Soil	Red Soil	Red Soil	Red soil
2	Textural class	--	Clay Loam	Clay Loam	Silty Clay	Silty Clay	Clay Loam
3	Size Distribution						
	Sand	%	32.04	32.00	33.07	32.42	35.05
	Clay	%	28.82	28.32	28.55	27.70	30.22
	Silt	%	39.13	39.68	38.38	39.88	34.73
4	Moisture Content	%	7.21	7.75	7.10	6.74	7.40
5	Bulk Density	gm/cc	1.69	2.26	3.57	3.40	3.41
6	Water holding capacity	%	30.84	27.77	26.68	29.03	36.02
7	pH	--	7.41	7.37	7.07	6.97	7.60
8	EC	m.mohs/cm	0.406	0.388	0.469	0.327	0.279
Chemical Properties							
9	Organic Carbon	%	0.69	0.55	0.65	0.69	0.54
10	Nitrogen as N	Kg/Ha	241	271	269	251	270
11	Phosphorous as P	Kg/Ha	9	9	386	9	10
12	Potassium as K ₂ O	Kg/Ha	125.33	129	121	129	121
13	Sodium as Na	mg/kg	38	29	30	28	31
14	Chloride as Cl	mg/kg	29	29	30	23	25
15	Sulphate as SO ₄	mg/kg	31	33	31	27	32
Sample Location							
S6 - Appayyanahalli agriculture lan							
S7 - Vitthalanagar agriculture land							
S8 - Swamihalli agriculture land							
S9 -Tonasigere agriculture land							
S10 - Yeshwanthnagar agriculture land							

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