



Danapur Village, Hosapete Taluk. Vijayanagara District, PIN-583222, Karnataka.

# **DECEMBER - 2023**

**Prepared by** 





# **GLOBAL** ENVIRONMENT & MINING SERVICES **NABL & MOEFCC Recognized Laboratory**

(Consulting Engineers, Mine Designers, Geologists & Surveyors) 3<sup>rd</sup> main road, Basaveswara badavane HOSAPETE - 583201, Dist., Vijayanagara (Karnataka) Tel

: 08394 355369 e-mail : gems\_hpt@yahoo.com Website

: www.globalmining.in

#### **PREFACE**

The industries should monitor environmental parameters as per the frequency and locations given in the CFE/CFO. And the same should be submitted on every month to the respective pollution control board.

As part of the conditions and inherent concern on health of the employees and surroundings **M/s. BMM Ispat Ltd.**, as appointed **M/s. Global Environment & Mining Services, Hosapete**, to carry out the environmental pollution monitoring on AAQ Monitoring, Fugitive monitoring, Noise Monitoring, Water Analysis & Stack monitoring submit the same to the Pollution Control Board.

Accordingly, **M/s. Global Environment & Mining Services, Hosapete**, carried out the pollution monitoring as per the standard sampling methods prescribed by CPCB, for AAQ Monitoring, Fugitive monitoring, Noise Monitoring, Water Analysis & Stack monitoring as per the CFO. These monitoring has been carried out in a frequency as mentioned in the CFO and the same report is being submitted to the Board.

We sincerely thank to officials of **M/s. BMM Ispat Ltd.,** for their valuable co-ordination & support during the sampling and reporting.

for GLOBAL Environment & Mining Services

K. Ramakrishna R

(Technical Manager)

Place: Hosapete Date: 06.01.2024

#### 1.0 EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

The journey of the BMM Group is a reflection of the path tread by every entrepreneur who believes in the human potential and one's own ability to bring about a life affirming change that transcends time. BMM Group was born out of this committed belief of Late Shri. Udai chand Singhi.

Entrenched in the Indian ethos, with an astute understanding of market needs, values and sensibilities *Mr. Dinesh Kumar Singhi* inherited the legacy from his father and has built the BMM Group on sound fundamentals since 1998. He steered the company towards growth by being the first mining company to establish a power generation plant for captive use, and creating a steel plant from the captive ore mine. Over the last 12 years, BMM has been able to add value to every relationship under his able and dynamic leadership.

Today, BMM is a 4900 Crores Company due to its focus on market orientation and optimal usage of technology to achieve process efficiency and value addition. BMM has always believed in the principle of sharing and hence continues to transfer this benefit derived from sustained growth to its employees, partners and associates. The unique value proposition that defines the very fabric of the BMM culture is the firm's belief in unleashing this 'potential in tones' in terms of its human capital, continuous growth and consistent benefits to its stakeholders.

The human potential at BMM is reflected in the depth of domain expertise across diverse sectors and dynamism of youth at various levels in the Organization. Business operations lead by professionals with decades of market understanding and a dynamic team enables BMM to deliver superior product quality. This human potential keeps BMM attuned to scaling new heights and meeting customer expectations. While consistently adding value to its partners, BMM is sensitive to its responsibility towards the environment by implementing best practices in its Business Operations and contribution to society through various social Endeavors.

BMM has a commitment of being a good Corporate Citizen and is committed to achieving business goals through ethical means. BMM hence has been able to have deeper relevance to society by creating value that is inclusive and truly benefits all.

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# **1.2 PROMOTERS OF THE PROJECT**

BMM Group, one of the leading Steel, Power & Mining companies in India that has achieved the present level under the leadership and guidance of **Sri. Dinesh Kumar Singhi**, the Founder & Chairman of the group, is promoting the project. His vision is to globalize the company business and do value addition by operating responsibly and in a sustainable manner in exploring, exploiting, excavating and processing minerals followed by setting up steel plant facilities.

**BMM** is a step towards forward integration has set up new merchant Bar Mill. The works is located at:

#### **BMM ISPAT LIMITED**

(Registered Office & Works) #114, Danapur Hosapete - 583 222 Vijayanagara Dist., Karnataka Phone +91 08394-264000, +91 9686550808/09 Fax - 08394 264010

#### 1.3 <u>Site Location</u>

BMM ISPAT LIMITED is located at Danapur about 15 Kms away from Hosapete in Karnataka. The plant site can be connected by national highway, viz. NH-13. The plant is 1 km away from the NH-13 near Danapur village. The nearest railway station is Hospet; Bangalore is at a distance of 300 kms. Seaport is Belikere and Karwar, the nearest Airport is in the private sector belonging to JSW, a Jindal Group company at Thoranagallu (Vidyanagara).

M/s. BMM ISPAT Ltd., Has accorded Environmental Clearance for 2.0 MTPA Integrated Steel Plant, with the following facilities.

S.N.	Items	Capacity
1	Iron ore beneficiation plant	4.70 MTPA
2	Palletizing Plant	2.40 MTPA
3	DRI Plant	0.70 MTPA
4	Coke Oven	0.80 MTPA
5	Sinter Plant	2.50 MTPA
6	Blast furnace	1.70 MTPA
7	EAF & BOF Steel making shop	2.30 MTPA
8	Continuous casting machines Slab Caster Billet Caster	1.10 MTPA 1.10 MTPA
9	Rolling mills: Hot strip mill Structural/wire rods	1.00 MTPA 1.00 MTPA
10	Oxygen Plant	2x500 TPD
11	Calcining	1,080 TPD
12	Cement Plant	1.40 MTPA
13	Power Plant	230 MW
14	Sponge Iron Division -1	2 x 100 TPD
15	Induction furnace (billets)	9000 tonnes/month
16	Rolling Mill (TMT rods)	9000 tonnes/month
17	Captive Power Plant	25 MW

Out of the above units, presently **4 x 500 TPD Sponge Iron Plants** and **1X70 MW Thermal Power Plants** have been commissioned on August 2011. Beneficiation plant-2, Pellet Plant-2 are commissioned on March 2012. 2X70 MW Thermal based power plants have commissioned on Jan 2013, EAF, Steel Making Shop, CCM, Rolling Mill, Oxygen plants are commissioned on August 2015. Remaining units are under various stages of implementation.

Hence environmental pollution monitoring is being carried out for 4 x 500 TPD sponge iron plants, 1X70 MW Thermal Power Plant, 1.3MTPA Beneficiation, 1.2MTPA Pellet Plant, 2X70MW Power plant, SMS, and RML.

**1.4** The report includes environmental monitoring data collected at above site for the

month of **DECEMBER-2023**. The Parameters monitored are:

- ✤ Ambient Air Quality
- Fugitive Dust Level
- Stack Emission
- Ambient Noise Level
- Water Quality

#### 2.0 SCOPE AND METHODOLOGY

#### 2.1 <u>PREAMBLE</u>

The scope of the study and the present report covers the detailed characterization of the existing environmental status in and around the plant area for major environmental components viz. Ambient & work zone air quality, Fugitive Emission, Noise level and water quality & Stack Emission.

# 2.2 AMBIENT AIR QUALITY

To assess the ambient air quality status, monitoring stations were identified 6 Location plant site. Work zone air monitoring stations were identified in the major work spots. Based on the production activities the parameters chosen for ambient air quality. Were Particulate Matter PM10, Particulate Matter (size less than  $2.5\mu$ m) PM2.5.

#### 2.2.1 PARTICULATE MATTER (PM<u>10)</u>(size less than 10μm).

#### <u>Purpose</u>

The purpose of this protocol is to provide guidelines for monitoring and analysis of Particulate Matter PM10 in ambient air

**Reference Method:** IS 5182 Part 23 Method of Measurement of Air Pollution: Respirable Suspended Particulate Matter (PM10) cyclonic flow technique.

#### Principle of the method

Air is drawn through a size-selective inlet and through a 20.3 X 25.4 cm (8 X 10 in) filter at a flow rate, which is typically 1132 L/min. Particles with aerodynamic diameter less than the cut-point of the inlet are collected, by the filter. The mass of these particles is determined by the difference in filter weights prior to and after sampling. The concentration of PM10 in the designated size range is calculated by dividing the weight gain of the filter by the volume of air sampled.

#### **Sampling**

Field Sampling - Tilt back the inlet and secure it according to manufacturer's instructions. Loosen the faceplate wing nuts and remove the faceplate. Remove the filter from its jacket and centre it on the support screen with the rough side of the filter facing upwards. Replace the faceplate and tighten the wing nuts to secure the rubber gasket against the filter edge. Gently lower the inlet. For automatically flow-

controlled units, record the designated flow rate on the data sheet. Record the reading of the elapsed time meter. The specified length of sampling is commonly 8 hours or 24 hours. During this period, several reading (hourly) of flow rate should be taken. After the required time of sampling, record the flow meter reading, take out the filter media from the sampler, and put in a container or envelope.

#### <u>Analysis</u>

**Filter inspection:** Inspect the filter for pin holes using a light table. Loose particles should be removed with a soft brush. Apply the filter identification number or a code to the filter if it is not a numbered. Condition the filter in conditioning room maintained within 20-30° C and 40-50% relative humidity or in an airtight desiccator for 24 hours. Take initial weight of the filter paper (Wi) before sampling. Condition the filter after sampling in conditioning room maintained within 20-30° C and 40-50% relative humidity or 20-30° C and 40-50% relative humidity of the filter paper (Wi) before sampling. Condition the filter after sampling in conditioning room maintained within 20-30° C and 40-50% relative humidity or in an airtight desiccator for 24 hours. Take final weight of the filter paper (Wf).

# 2.2.2 Particulate Matter (PM<u>2.5)</u>(size less than 2.5μm)

#### **Purpose**

The purpose of this protocol is to provide guidelines for monitoring and analysis of Particulate Matter PM2.5 in ambient air.

**<u>Reference Method:</u>** USEPA 2001 Method of Measurement of Air Pollution: Particulate Matter (PM2.5) cyclonic flow technique.

# **Principle**

An electrically powered air sampler draws ambient air at a constant volumetric flow rate (16.7 lpm) maintained by a mass flow / volumetric flow controller coupled to a microprocessor into specially designed inertial particle-size separator (i.e. cyclones or impactors) where the suspended particulate matter in the PM2.5 size ranges is separated for collection on a 47 mm polytetrafluoroethylene (PTFE) filter over a specified sampling period. Each filter is weighed before and after sample collection to determine the net gain due to the particulate matter. The mass concentration in the ambient air is computed as the total mass of collected particles in the PM2.5 size ranges divided by the actual volume of air sampled, and is expressed in  $\mu$ g/m3. The microprocessor reads averages and stores five-minute averages of ambient temperature, ambient pressure, filter temperature and volumetric flow rate. In

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addition, the microprocessor calculates the average temperatures and pressure, total volumetric flow for the entire sample run time and the coefficient of variation of the flow rate.

#### 2.2.3 <u>Sulphur Dioxide (SO2)</u>

**<u>Purpose</u>**: The purpose of this protocol is to provide guidelines for monitoring and analysis of sulphur dioxide in ambient air.

**<u>Reference Method:</u>** Modified West &Gaeke Method (IS 5182 Part 2 Method of Measurement of Air Pollution: Sulphur dioxide).

Sulphur dioxide from air is absorbed in a solution of potassium tetra chloromercurate (TCM). A dichlorosulphitomercurate complex, which resists oxidation by the oxygen in the air, is formed. Once formed, this complex is stable to strong oxidants such as ozone and oxides of nitrogen and therefore, the absorber solution may be stored for some time prior to analysis. The complex is made to react with para-rosaniline and formaldehyde to form the intensely coloured pararosaniline methyl sulphonic acid. The absorbance of the solution is measured by means of a suitable spectrophotometer.

#### **Sampling**

Place 30 ml of absorbing solution in an impinger and sample for four hours at the flow rate of 1 L/min. After sampling measure the volume of sample and transfer to a sample storage bottle.

#### <u>Analysis</u>

Replace any water lost by evaporation during sampling by adding distilled water up to the calibration mark on the absorber. Mix thoroughly, pipette out 10 ml of the collected sample into a 25 ml volumetric flask. Add 1 ml 0.6% sulphamic acid and allow reacting for 10 minutes to destroy the nitrite resulting from oxides of nitrogen. Add 2 ml of 0.2% formaldehyde solution and 2 ml pararosaniline solution and make up to 25 ml with distilled water. Prepare a blank in the same manner using 10 ml of unexposed absorbing reagent. After a 30 min colour development interval and before 60 minutes, measure and record the absorbance of samples and reagent blank at 560 nm. Use distilled water; not the reagent blank, as the optical reference.

# 2.2.4 <u>Nitrogen Di Oxide (NO<sub>2</sub>):</u>

#### **Purpose**

The purpose of this protocol is to provide guidelines for monitoring of nitrogen dioxide in ambient.

# Principle of the method

Modified Jacobs & Hochheiser Method (IS 5182 Part 6 Methods for Measurement of Air Pollution: Oxides of nitrogen)

Ambient nitrogen dioxide (NO2) is collected by bubbling air through a solution of sodium hydroxide and sodium arsenite. The concentration of nitrite ion (NO2) produced during sampling is determined calorimetrically by reacting the nitrite ion with phosphoric acid, sulfanilamide, and N-(1-naphthyl)- ethylenediamine di-hydrochloride (NEDA) and measuring the absorbance of the highly coloured azo-dye at 540 nm.

# 2.2.5 <u>Ozone (Chemical method)</u>

#### **Purpose**

The purpose of this protocol is to provide guidelines for monitoring of ozone in ambient air.

# Principle of the method

Micro-amounts of ozone and the oxidants liberate iodine when absorbed in a 1% solution of potassium iodine buffered at pH 6.8 + 0.2. The iodine is determined spectrophotometrically by measuring the absorption of tri-iodide ion at 352 nm.

# **Sampling**

Place 10 ml of absorbing solution in a standard impinger and sample for one hour at the flow rate of 1 L/min. Do not expose the absorbing reagent to direct sunlight. After sampling measure the volume of sample and transfer to a sample storage bottle.

# <u>Analysis</u>

If, appreciable evaporation of the absorbing solution occurs during sampling, add water to bring the liquid volume to 10 ml. Within 30 to 60 minutes after sample collection, read the absorbance in a cuvette at 352 nm against a reference cuvette containing distilled water. Measure the absorbance of the unexposed reagent and subtract the value from the absorbance of the sample.

# 2.2.6 Ammonia<u>(NH<sub>3</sub>)</u>

# <u>Purpose</u>

The purpose of this protocol is to provide guidelines for monitoring of ammonia in ambient air.

# Principle of the method

Indophenol method Ammonia in the atmosphere is collected by bubbling a measured volume of air through a dilute solution of sulphuric acid to form ammonium sulphate. The ammonium sulphate formed in the sample is analysed calorimetrically by reaction with phenol and alkaline sodium hypochlorite to produce indophenol. The reaction is accelerated by the addition of Sodium Nitroprusside as catalyst.

# **Sampling**

Place 10 ml of absorbing solution in an impinger and sample for one hour at the flow rate of 1 to 2 L/min. After sampling measure the volume of sample and transfer to a sample storage bottle

# <u>Analysis</u>

Transfer contents of the sample bottle to a 25 ml glass stopper graduated cylinder. Maintain all the solutions and sample at 25° C. Add 2 ml buffer. Add 5 ml of working phenol solution, mix, and fill to about 22 ml. Add 2.5 ml of working hypochlorite solution and rapidly mix. Dilute to 25 ml, mix and store in the dark for 30 minutes to develop colour. Measure the absorbance of the solution at 630 nm on a spectrophotometer using 1 cm cells. Prepare a reagent blank and field blank and measure the absorbance as done in the analysis of samples.

# 2.2.7 <u>Benzo(a)Pyrene</u>

# <u>Purpose</u>

The purpose of this protocol is to provide guidelines for monitoring of Benzo (a) Pyrene (BaP) in ambient air.

# Principle of the Method

It is based on BIS method IS 5182 (Part 12):2004 and USEPA method (TO-13). This method is designed to collect particulate phase PAHs in ambient air and fugitive emissions and to determine individual PAH compounds using capillary gas chromatograph equipped with flame ionization detector. It is a high volume

(1.2m3/min) sampling method capable of detecting sub.ng/m3 concentration of PAH in 24 hours sample (i.e., collected in 3 shifts of 8 hour each with 480 m3 sampling volume of air).

# **Sampling**

24 hr. sampling using PM10 high volume sampler with 8 hourly samples using EPM 2000 glass fibre or equivalent filter.

# **Sample Processing**

**Extraction:** Filter papers (half of all the filters papers collected in a day) are cut into strips using scissors and transfer to 250 ml beaker. Add  $\sim$ 50 ml. of Toluene (GC/HPLC grade). These samples are extracted with toluene using ultra sonic bath for about 30 minutes. Repeat the procedure twice (50ml x 2 times) for complete extraction. Alternatively, sample can be extracted using soxhlet extraction apparatus for about 8 hr. with Toluene and repeat it twice.

# <u>Filtration</u>

Filter the extracted samples with Whatman filter paper no.41 containing 2 gm of Anhydrous Sodium Sulphate (to remove moisture).

# Sample injection

Take  $2\mu$ l of sample from the amber vial using standard gas tight syringe and inject in the Capillary GC-FID instrument for analysis. Record the resulting concentration of each PAH compound including B(a)P. A 10ng/µl concentration B(a)P or other PAH standards are to be injected in GC/FID instrument with every batch of samples. As a control Internal Standard of 10 ng/µl conc. is added to each sample prior to the analysis in case of internal calibration is used.

# 2.2.8 <u>Benzene</u>

Samples collected through active sampling (sorbent tubes) are extracted or desorbed by conventional solvent (generally 1-5 ml of carbon disulphide) using ultrasonication for 15 min to remove analyte from the sorbent material. Desorbed samples are analyzed using gas chromatograph (GC) fitted with capillary column and flame ionization detector (FID). A single tube may provide enough samples to permit several analyses.

# **Principle of the Method**

IS 5182 (Part 11): 2006,the charcoal tubes are available in different sizes and contain varying amount of activated charcoal. The ambient air is sucked through the tube using a low flow sampler used for collection of BTX sample in a way that results in an enrichment of the relevant substances in the activated charcoal. Desorption of the adsorbed benzene is done using carbon disulphide (CS2). The substances desorbed in the CS2 are analyzed by capillary gas chromatography. A flame ionization detector (FI D) is used for analysis while quantification is performed using the internal/external standard.

# Gas Chromatograph

Any suitable gas chromatograph with flame ionization detector (FlO) with fused silica capillary columns having a length of25 m or more, an internal diameter of 320 11m or below and with a stationary phase film thickness less than 1.5 11m as follows or equivalent may be recommended.

#### **Sampling**

Selection of Sorbent Tube '- Samples are collected in glass sampling tube filled with an activated charcoal (coconut shell), Chromo sorb 106 or other suitable adsorbent.

# Analytical Procedure

Samples collected through active sampling (sorbent tubes) are extracted or desorbed by conventional solvent (generally 1-5 ml of carbon disulphide) using ultrasonication for 15 min to remove analyte from the sorbent material. Desorbed samples are analysed using gas chromatograph (GC) fitted with capillary column and flame ionization detector (FID). A single tube may provide enough samples to permit several analyses.

# 2.2.9 <u>Carbon Monoxide (CO)</u>

# **Principle:**

Samples containing carbon monoxide in the range of 0 to 100 mg/l are analysed on a non-dispersive infrared absorption gas analyser, namely, an electro-optical spectrophotometer with no spectral dispersion component. It may consist of a single or double source of infrared energy and one or more infrared detectors separated by an optical cell or cells through one or more of which the sample flows, whereby the specific spectral absorption of the component of interest is determined.

#### Non dispersive Infrared (NDIR) Gas Analyser

The apparatus shall be constructed so as to be suitable for operating within the temperature range of 15°C to 40°C and in a relative humidity range of 0 to 90 percent. The apparatus shall embody facilities for the analysis of continuously applied sample or a discrete sample of volume of 2.0 litres. In the later case the purification train shall be of such a design and dead volume that 2.0 litres Pis adequate for its proper flushing out. The apparatus shall include facilities for the visual inspection of results and also for their recording. The scale shall be divided into steps of 1.0 percent full scale division (fsd).

Though the basic instrument recommended is for (0 to 100) mg/l range, for samples of higher mg/l range the instrument may be used with proper dilution and conditioning of the samples.

# 2.2.10 Lead (Pb), Nickel (Ni) & Arsenic (As)

#### <u>Purpose</u>

The purpose of this protocol is to provide guidelines for monitoring of Lead (Pb), Nickel (Ni) & Arsenic (As) in ambient air.

# Principle of the method

The Atomic Absorption Spectroscopy (AAS) technique makes use of absorption spectrometry to assess the concentration of an analyte in the sample. The method is based on active sampling using PM10 Respirable Dust Sampler and then sample analysis is done by atomic absorption spectrophotometer.

#### **Sampling procedure**

Tilt back the inlet and secure it according to manufacturer's instructions. Loosen the face-plate wing-nuts and remove the face plate. Remove the filter from its jacket and centre it on the support screen with the rough side of the filter facing upwards. Replace the face-plate and tighten the wing-nuts to secure the rubber gasket against the filter edge. Gently lower the inlet. For automatically flow-controlled units, record the designated flow rate on the data sheet. Record the reading of the elapsed time meter. The specified length of sampling is commonly 8 hours or 24 hours. During this period, several reading (hourly) of flow rate should be taken. After the required time of sampling, record the flow meter reading and take out the filter media from the sampler and put in a container or envelope.

#### 3.0 Fugitive Emission Monitoring

Fugitive air quality was monitored 40 samples were collected from the analyzed for SPM analyzed by gravimetric method. Work Zone Air quality was monitored at all Plant area and material handling area.

# 4.0 <u>Stack Monitoring</u>

Stack Monitoring was Collected 60 Sample from Vayubodhan Stack sampler VSS1 stack monitoring was used for drawing the flue gas. Sulphur dioxide and oxides of Nitrogen in the flue gas was sampled by bubbling flue gas solution respectively and the analyses of the pollutants were done as per the Indian Standard procedures prescribed by CPCB/BIS. Stack Emission level was monitored as per the statutory requirement on twice in a month.

# 4.1 <u>Stack Emissions Monitoring Methodology</u>

# **Sampling Procedure**

# **Pre-Sampling Activities**

Weigh the properly conditioned thimble/filter and place it into the clean, air tight Container. Designate appropriate label or ID No. to each thimble/filter container. Particulate matter emission of "Stack Monitoring – Material and Methodology for is kinetic Sampling.

Field activity starts with the collection of detailed information from the industry about the products, raw materials, fuels, and stack dimensions.

# 4.2 <u>Traverse Point Calculation</u>

Calculate the traverse point and accordingly mark the distance from tip of the Nozzle, on Pitot tube and probe. Do not forget to add the collar length of port to the calculated traverses. For detailed calculation of "Stack Monitoring– Material and Methodology for isokinetic sampling.

# 4.3 Determination of Dust Concentration

Determine the mass of dust collected in the thimble by difference i.e., weighing the thimble before and after the run. Dry the thimble in an oven for about 2 hours at 120°C prior to sampling. After sampling, cool, dry and again weigh the thimble along with dust maintaining the same condition as prior to sampling.

# **DATA ANALYSIS**

# 4.4 <u>BUFFERZONE AMBIENT AIR QUALITY STATUS</u> Danapur Village (A1)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 68.79., 16.55, 9.18 &  $10.86 \ \mu g/m3$  respectively. All above the values were found within the Limits. And the results given in **Annexure-1**.

# Mariyammanahalli Village (A2)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 52.65, 12.61, 7.51 & 8.80  $\mu$ g/m3 respectively. All above the values were found within the Limits. And the results given in **Annexure-2**.

# Hanumanahalli Village (A3)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 72.02, 18.61,  $10.03 \& 12.18 \mu g/m3$  respectively. All above the values were found within the Limits. Results given in **Annexure-3**.

# Galemmanagudi Village (A4)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 69.87, 20.14, 9.89 & 11.37  $\mu$ g/m3 respectively. All above the values were found within the Limits. Results given in **Annexure-4**.

# G Nagalapura Village (A5)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 49.58, 9.61, 6.70 & 7.77  $\mu$ g/m3respectively. All above the values were found within the Limits. Results given in **Annexure-5**.

# Gunda Tanda Village (A6)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 63.82, 15.86, 7.97 & 9.66  $\mu$ g/m3respectively. All above the values were found within the Limits. Results given in **Annexure-6**.

# 5.1 <u>FUGITIVE DUST CONCENTRATION</u>

Fortnightly fugitive air quality was monitored all plant area SPM value minimum 183.14  $\mu$ g/m<sup>3</sup>, maximum value 1973.18  $\mu$ g/m<sup>3</sup> and average value 902.38  $\mu$ g/m<sup>3</sup>. The Fugitive air quality 1<sup>st</sup> & 2<sup>nd</sup> Fortnight Results given in **Annexure-7 to Annexure-10**.

# 5.2 STACK MONITORING

Stack emission level was monitored all chimneys' PM values (mg/Nm<sup>3</sup>) 1st and 2<sup>nd</sup>Fortnight Minimum Value 4.28 mg/Nm<sup>3</sup>, Maximum Value 42.62 mg/Nm<sup>3</sup> & Average Value 27.59 mg/Nm<sup>3</sup>. 1<sup>st</sup> & 2<sup>nd</sup> Fortnight Results are given in **Annexure-11** to **Annexure-37**.

# 5.3 AMBIENT NOISE LEVEL MEASUREMENT

Noise level was recorded at 30 locations each in Ambient and work zone area using Sound Level Meter (Equinox-EQ 107 Instrument / Lutron) The Day & Night time noise level values were ranging between 40.7 to 71.5 dB (A) and 39.2 to 63.4 dB (A). The noise level status is given in **Annexure-38 to Annexure-39**.

**5.4** Water Sample Collected at 17 locations in side plant and surrounding nearest villages and nearest surface water Sample Collected every Month. The Water Analysis Test Report is given in **Annexure-41 to Annexure-52**.

# 5.5 <u>CONCLUSION</u>

All the monitored Environmental parameters were found to be well within the statutory norms and the same are enclosed as follows.



# **GLOBAL**ENVIRONMENT & MINING SERVICES

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



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

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

- Name of the Industry **Customer Reference** Sample collected by Discipline Group Sample Type Particulars of Sample Collected Month Location **Duration of Monitoring Report Issued Date Report Number**
- BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- WO/ADMIN/FY24/R018 :
- **Global Environment & Mining Services** ÷
- Chemical :
- Atmospheric Pollution :
- Ambient Air Quality Monitoring :
- **Respirable Dust Sampler, FPS Sampler** :
  - DECEMBER- 2023
  - **A1-Danapur Village**
  - 24 Hour

:

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- 06.01.2024 :
- ULR-TC532323000001543F :

**RESULTS** 

Parameters Reference		ΡΜ: [μg/r IS:5182:	n <sup>3</sup> ] 2006	ΡΜ [μg/ USEPA	m <sup>3</sup> ] 2001	SC [μg/ IS:5182	m <sup>3</sup> ] : 2001		<sup>'m³]</sup> 182:	
	Method		(Part- (RF-20	-	Gravin Metl		(Par (RF-2	-	(Part-6 (RF-2	) 2006 (017)
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
07.12.2023	08.12.2023	4178	73.05		18.59		8.26	-	10.06	80
08.12.2023	09.12.2023	4218	66.06		11.64		9.84		9.72	
13.12.2023	14.12.2023	4324	78.10		17.82		8.12		10.88	
14.12.2023	15.12.2023	4326	69.48		14.95		7.38		9.34	
21.12.2023	22.12.2023	4446	84.19	100	23.27	60	11.86	80	13.12	
22.12.2023	23.12.2023	4474	53.70		14.71		9.48		11.34	
28.12.2023	29.12.2023	4585	58.51		12.63		8.12		9.28	
29.12.2023	30.12.2023	4600	67.22		18.80		10.34		13.12	
	Average		68.79		16.55		9.18		10.86	

SL NO		<b>INSTRUMENT DETAILS</b>		
1 1	Instrument Name	Fine Particulate Sampler (FPS)		
2 1	Make & Model	Enviro instruments / EI-142 NL	Enviro instruments / EI-133	
3 9	Serial No	R.D.S. / 197-C-21	PM2.5/PM10 Sampler / 158-K-20	
4 (	Calibration Date	08.07.2023	06.03.2023	
5 0	Calibration Due Date	24.07.2024	05.03.2024	

INFERENCE

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

**Analysed By** Priyanka B M Chemist

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

Note The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied

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

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

Name of the Industry **Customer Reference** Sample collected by Discipline Group Sample Type Particulars of Sample Collected Month Location **Duration of Monitoring Report Issued Date** 

BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. :

WO/ADMIN/FY24/RO18 :

- **Global Environment & Mining Services**
- Chemical :
- **Atmospheric Pollution** :
  - Ambient Air Quality Monitoring
- **CO** Analyser 1
- **DECEMBER-2023** :
  - **A1-Danapur Village**

06.01.2024 :

1 Hour

:

:

:

#### **RESULTS**

SI. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m³]	Standard
1	07.12.2023	4178	0.10	
2	08.12.2023	4218	< 0.01	
3	13.12.2023	4324	0.16	
4	14.12.2023	4326	< 0.01	4.0
5	21.12.2023	4446	< 0.01	4.0
6	22.12.2023	4474	0.10	
7	28.12.2023	4585	< 0.01	
8	29.12.2023	4600	< 0.01	

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour) ND - Not Detected

SL NO	INST	RUMENT DETAILS
1	Instrument Name	CO Gas Detector
2	Make & Model	Vasthi Instruments Pvt Ltd & VS-70-70-CO
3	Serial No	180883821
4	Calibration Date	08.07.2023
5	Calibration Due Date	07.07.2024

INFERENCE

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

**Analysed By** Priyanka B M Chemist





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

# ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference	:	WO/ADMIN/FY24/R018
Sample collected by	:	Global Environment & Mining Services
Discipline	:	Chemical
Group	:	Atmospheric Pollution
Sample Type	:	Ambient Air Quality Monitoring
Particulars of Sample Collected	:	Respirable Dust Sampler, FPS Sampler
Month	:	DECEMBER- 2023
Location	:	A2-Mariyammanahalli Village
Duration of Monitoring	:	24 Hour
Report Issued Date	:	06.01.2024
Report Number	:	ULR-TC532323000001513F
-		RESULTS

Parameters Reference Method		PM10         PM2.5           [μg/m³]         [μg/m³]           IS:5182:2006         USEPA 2001           (Part-23)         Gravimetric Method		SO <sub>2</sub> [μg/m <sup>3</sup> ] IS:5182: 2001 (Part-2) (RF-2017)		NO2 [μg/m <sup>3</sup> ] IS :5182: (Part-6) 2006 (RF-2017)				
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
04.12.2023	05.12.2023	4121	61.20		12.92		7.12	-	9.86	80
05.12.2023	06.12.2023	4138	59.35		10.35		9.54		10.22	
11.12.2023	12.12.2023	4262	54.51		11.92		6.28		7.54	
12.12.2023	13.12.2023	4271	50.19		15.27		8.16		10.06	
18.12.2023	19.12.2023	4369	48.66	100	10.28	60	7.54	80	8.28	
19.12.2023	20.12.2023	4392	33.24		12.31		6.28		7.36	
25.12.2023	26.12.2023	4531	52.44		14.37		8.12		8.94	
26.12.2023	27.12.2023	4548	61.63	]	13.46		7.06		8.12	
	Average		52.65		12.61		7.51		8.80	

SL NO		<b>INSTRUMENT DETAILS</b>		
1 Instrument Name		Instrument Name Respirable Dust Sampler (RDS)		
2	Make & Model	Greentech instruments / GTI -151-N	Enviro instruments / EI-133	
3	Serial No	466-DTE-2023	PM2.5 /PM10 Sampler / 159-K-20	
4	Calibration Date	15.05.2023	06.03.2023	
5	Calibration Due Date	14.05.2024	05.03.2024	

INFERENCE

1. 2 3. 4. 5. 6

As per NAAQMS Standards (2009),

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

Analysed By Priyanka B M Chemist

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

Note:

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



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

# ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

- Name of the Industry Customer Reference Sample collected by Discipline Group Sample Type Particulars of Sample Collected Month Location Duration of Monitoring Report Issued Date
- : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- : WO/ADMIN/FY24/R018
- **Global Environment & Mining Services**
- : Chemical
- : Atmospheric Pollution
  - Ambient Air Quality Monitoring
- : CO Analyser
- DECEMBER-2023
- A2-Mariyammanahalli Village
- : 1 Hour

:

: 06.01.2024

#### **RESULTS**

SI. No.	Date of SamplingSample CodeC0 (1 Hour) [mg/m³]			Standard
1	04.12.2023	4121	0.16	
2	05.12.2023	4138	0.12	
3	11.12.2023	4262	0.14	
4	12.12.2023	4271	0.18	4.0
5	18.12.2023	4369	0.12	4.0
6	19.12.2023	4392	0.10	
7	25.12.2023	4531	0.10	
8	26.12.2023	4548	0.12	

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour) ND - Not Detected

SL NO	INSTRUMENT DETAILS					
1	Instrument Name	CO Gas Detector				
2	Make & Model	Vasthi Instruments Pvt Ltd & VS-70-70-CO				
3	Serial No	180883821				
4	Calibration Date	08.07.2023				
5	Calibration Due Date	07.07.2024				

INFERENCE As p

As per NAAQMS Standards (2009),

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

**Analysed By** Privanka B M Chemist

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



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

# ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry Customer Reference Sample collected by Discipline Group Sample Type Particulars of Sample Collected Month Location Duration of Monitoring Report Issued Date	<ul> <li>BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.</li> <li>WO/ADMIN/FY24/R018</li> <li>Global Environment &amp; Mining Services</li> <li>Chemical</li> <li>Atmospheric Pollution</li> <li>Ambient Air Quality Monitoring</li> <li>Respirable Dust Sampler, FPS Sampler</li> <li>DECEMBER- 2023</li> <li>A3-Hanumanahalli Village</li> <li>24 Hour</li> <li>06.01.2024</li> <li>UR D TCF 22222000001542E</li> </ul>
Report Number	: ULR-TC532323000001542F

#### **RESULTS**

Parameters Reference Method		Image: Image in the second s		n <sup>3</sup> ] 2001 etric	SO <sub>2</sub> [μg/m <sup>3</sup> ] IS:5182: 2001 (Part-2) (RF-2017)		NO2 [μg/m <sup>3</sup> ] IS :5182: (Part-6) 2006 (RF-2017)			
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
07.12.2023	08.12.2023	4179	88.13		26.15	-	9.28		13.26	
08.12.2023	09.12.2023	4219	76.32		19.18		8.12	-	10.54	
13.12.2023	14.12.2023	4325	69.67		16.17		10.36		13.1	
14.12.2023	15.12.2023	4327	64.13		13.58		12.48		14.12	
21.12.2023	22.12.2023	4447	68.74	100	16.75	60	9.58	80	10.06	80
22.12.2023	23.12.2023	4475	76.59		20.17	-	11.26		13.72	_
28.12.2023	29.12.2023	4586	59.96		18.12		8.46		10.48	
29.12.2023	30.12.2023	4601	72.62	1	18.79		10.68		12.12	
L).12.2023	Average		72.02	1	18.61	]	10.03		12.18	

Dust Sampler (RDS) ruments / EI-142 NL	Fine Particulate Sampler (FPS) Enviro instruments / El-133
S. / 197-C-21	PM2.5 /PM10 Sampler / 160-K-20
8.07.2023	06.03.2023
4 07 2024	05.03.2024
	4.07.2023

INFERENCE

Note 1. 2. 3. 4. 5. 6

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

Analysed By Priyanka B M Chemist

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

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

# ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry Customer Reference Sample collected by Discipline Group Sample Type Particulars of Sample Collected Month Location Duration of Monitoring Report Issued Date : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.

- : WO/ADMIN/FY24/R018
  - Global Environment & Mining Services
- : Chemical
- : Atmospheric Pollution
  - Ambient Air Quality Monitoring
- : CO Analyser
- : DECEMBER-2023
  - A3-Hanumanahalli Village
- : 1 Hour

:

:

: 06.01.2024

#### **RESULTS**

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m <sup>3</sup> ]	Standard
1	07.12.2023	4179	0.16	
2	08.12.2023	4219	0.12	
3	13.12.2023	4325	0.10	
4	14.12.2023	4327	0.10	4.0
5	21.12.2023	4447	0.12	7.0
6	22.12.2023	4475	0.14	
7	28.12.2023	4586	0.10	
8	29.12.2023	4601	0.12	

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour) ND - Not Detected

SL NO	INS	TRUMENT DETAILS
1	Instrument Name	CO Gas Detector
2	Make & Model	Vasthi Instruments Pvt Ltd & VS-70-70-CC
3	Serial No	180883821
4	Calibration Date	08.07.2023
5	Calibration Due Date	07.07.2024

INFERENCE

As per NAAQMS Standards (2009),

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

**Analysed By** Priyanka B M Chemist

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

Recognised by Ministry of Environment, Forest and Climate Change for Laboratory



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

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

BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. Name of the Industry : WO/ADMIN/FY24/R018 **Customer Reference** : **Global Environment & Mining Services** Sample collected by : Chemical Discipline : Atmospheric Pollution Group : Ambient Air Quality Monitoring Sample Type : Respirable Dust Sampler, FPS Sampler Particulars of Sample Collected : DECEMBER- 2023 Month : A4-Galemmanagudi Village Location : **Duration of Monitoring** 24 Hour : **Report Issue Date** : 06.01.2024 **Report Number** : ULR-TC532323000001514F

RESULTS

]	Parameters		PM [µg/յ		PM [µg/		Տ( [µg/	-	N( [µg/	
	Reference Method		IS:5182 (Part- (RF-20	-23)	USEPA Gravimetr		IS:5182 (Par (RF-2	rt-2)	IS :5 (Part-6 (RF-2	) 2006
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
04.12.2023	05.12.2023	4122	70.11		25.97		9.54		12.22	
05.12.2023	06.12.2023	4139	78.44		21.95		12.16		12.68	
11.12.2023	12.12.2023	4263	56.22		12.78		10.54		12.06	
12.12.2023	13.12.2023	4272	62.14		19.21		8.06		10.44	
18.12.2023	19.12.2023	4370	66.37	100	21.00	60	11.34	80	12.64	80
19.12.2023	20.12.2023	4393	70.29		20.61		10.02		10.97	
25.12.2023	26.12.2023	4532	74.00		17.31		9.34		9.86	
26.12.2023	27.12.2023	4549	81.41		22.26		8.12		10.12	
	Average		69.87		20.14		9.89		11.37	

SL NO		<b>INSTRUMENT DETAILS</b>		
1	Instrument Name	Respirable Dust Sampler (RDS)	Fine Particulate Sampler (FPS)	
2	Make & Model	Enviro instruments / EI-142 NL	Enviro instruments / EI-133	
3	Serial No	R.D.S./198-C-21	PM2.5 /PM10 Sampler / 158-K-20	
4	Calibration Date	08.07.2023	06.03.2023	
5	Calibration Due Date	07.07.2024	05.03.2024	
	As per NAAQMS Standar	ds (2009),	I	

INFERENCE

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

**Analysed By** Priyanka B M Chemist

nont & Authorised Signator K. Ramakrishna Reddy **Technical Manager** 

Note The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.

Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.

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

# ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry **Customer Reference** Sample collected by Discipline Group Sample Type Particulars of Sample Collected Month Location **Duration of Monitoring Report Issued Date** 

BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.

- WO/ADMIN/FY24/R018
  - **Global Environment & Mining Services**
- Chemical :
- **Atmospheric Pollution** :
  - Ambient Air Quality Monitoring
- **CO** Analyser •
  - **DECEMBER-2023** :
  - A4-Galemmanagudi Village :
  - 1 Hour :

:

06.01.2024 :

#### **RESULTS**

SI. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m <sup>3</sup> ]	Standard
1	04.12.2023	4122	0.16	
2	05.12.2023	4139	0.12	
3	11.12.2023	4263	0.10	
4	12.12.2023	4272	0.12	4.0
5	18.12.2023	4370	0.10	7.0
6	19.12.2023	4393	0.10	
7	25.12.2023	4532	0.12	
8	26.12.2023	4549	0.10	

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour) ND - Not Detected

SL NO	INST	TRUMENT DETAILS
1	Instrument Name	CO Gas Detector
2	Make & Model	Vasthi Instruments Pvt Ltd & VS-70-70-CO
3	Serial No	180883821
4	Calibration Date	08.07.2023
5	Calibration Due Date	07.07.2024

As per NAAQMS Standards (2009),

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

Analysed By Priyanka B M Chemist

Authorised Signatory K. Ramakrishna Reddy Technical Manager

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



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



**ANNEXURE-05** GEMS-LD/TF/11/01

# ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry Customer Reference Sample collected by Discipline Group Sample Type Particulars of Sample Collected		BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. WO/ADMIN/FY24/R018 Global Environment & Mining Services Chemical Atmospheric Pollution Ambient Air Quality Monitoring Respirable Dust Sampler, FPS Sampler
Month Location	:	DECEMBER- 2023 A5-G Nagalapura Village 24 Hour
Duration of Monitoring Report Issue Date Report Number	:	06.01.2024 ULR-TC532323000001515F

#### RESULTS

]	Parameters Reference Method		PM1 [µg/m IS:5182: (Part-2 (RF-20	13] 2006 23)	ΡΜ2 [μg/1 USEPA Gravimetr	m3] 2001	SO2 [μg/m IS:5182: (Part (RF-20	13] 2001 -2)	ΝΟ [μg/ IS :5 (Part-6 (RF-2	m3] 182: ) 2006
Date of Sampling	Date of Received Sample	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
04.12.2023	05.12.2023	4123	51.74		7.35		6.12		6.94	
05.12.2023	06.12.2023	4140	42.66		9.23		8.34		9.28	
11.12.2023	12.12.2023	4264	44.06		7.16		6.54		7.68	
12.12.2023	13.12.2023	4273	50.66		11.74		5.18		5.82	
18.12.2023	19.12.2023	4371	54.42	100	13.53	60	6.08	80	7.74	80
19.12.2023	20.12.2023	4394	50.81	]	8.19		5.86		7.02	
25.12.2023	26.12.2023	4533	52.69	1	7.41		7.12		8.44	
26.12.2023	27.12.2023	4550	49.61	1	12.24		8.34		9.26	
20.12.2025	Average		49.58		9.61		6.70		7.77	

INSTRUMENT DETAILS	VT DETAILS			
Instrument Name Respirable Dust Sampler (RDS)				
Enviro instruments / EI-142 NL	Enviro instruments / EI-133			
R.D.S. / 198-C-21	PM2.5 /PM10 Sampler / 159-K-20			
08.07.2023	06.03.2023			
24.07.2024	05.03.2024			
	Respirable Dust Sampler (RDS) Enviro instruments / EI-142 NL R.D.S. / 198-C-21 08.07.2023			

INFERENCE

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

Analysed By Priyanka B M Chemist

2 3. 4.5.6.

Authorised Signatory K. Ramakrishna Beddy Technical Manager

Note: 1.

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#### ANNEXURE-05 GEMS-LD/TF/11/01

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

- Name of the Industry Customer Reference Sample collected by Discipline Group Sample Type Particulars of Sample Collected Month Location Duration of Monitoring Report Issued Date
- : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- : WO/ADMIN/FY24/R018
  - Global Environment & Mining Services
- : Chemical
  - Atmospheric Pollution
  - Ambient Air Quality Monitoring
- : CO Analyser
- : DECEMBER-2023
  - A5- G Nagalapura Village
- : 1 Hour

:

•

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: 06.01.2024

#### **RESULTS**

SI. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m <sup>3</sup> ]	Standard
1	04.12.2023	4123	< 0.01	
2	05.12.2023	4140	< 0.01	
3	11.12.2023	4264	< 0.01	
4	12.12.2023	4273	< 0.01	4.0
5	18.12.2023	4371	< 0.01	4.0
6	19.12.2023	4394	< 0.01	
7	25.12.2023	4533	< 0.01	
8	26.12.2023	4550	< 0.01	

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour) ND - Not Detected

SL NO	INST	TRUMENT DETAILS
1	Instrument Name	CO Gas Detector
2	Make & Model	Vasthi Instruments Pvt Ltd & VS-70-70-CC
3	Serial No	180883821
4	Calibration Date	08.07.2023
5	Calibration Due Date	07.07.2024

INFERENCE

As per NAAQMS Standards (2009),

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

Analysed By Priyanka B M Chemist

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

Recognised by Ministry of Environment, Forest and Climate Change for Laboratory



# **GLOBAL**ENVIRONMENT & MINING SERVICES

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



#### **ANNEXURE-06** GEMS-LD/TF/11/01

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

Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference	: WO/ADMIN/FY24/R018
Sample collected by	: Global Environment & Mining Services
Discipline	: Chemical
Group	: Atmospheric Pollution
Sample Type	: Ambient Air Quality Monitoring
Particulars of Sample Collected	: Respirable Dust Sampler, FPS Sampler
Month	: DECEMBER- 2023
Location	: A6-Gunda Tanda Village
Duration of Monitoring	: 24 Hour
Report Issue Date	: 06.01.2024
Report Number	: ULR-TC532323000001516F
	RESULTS

#### RESULTS

	Parameters		PM [µg/ı		ΡΜ2 [μg/1		SO [µg/1	-	NC [µg/	-
	Reference Method		IS:5182: (Part- (RF-20	23)	USEPA : Gravim Meth	etric	IS:5182: (Part (RF-20	-2)	IS :51 (Part-6) (RF-2)	) 2006
Date of Sampling	Date of Received Sample	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
04.12.2023	05.12.2023	4124	67.37		15.24		7.82		9.16	
05.12.2023	06.12.2023	4141	71.95		17.17		6.78		8.04	
11.12.2023	12.12.2023	4265	58.11		15.49		8.16		10.12	
12.12.2023	13.12.2023	4274	62.09		19.03		9.02		11.34	
18.12.2023	19.12.2023	4372	66.37	100	16.81	60	8.54	80	10.68	80
19.12.2023	20.12.2023	4395	64.95		15.88		7.68		9.44	
25.12.2023	26.12.2023	4534	56.75	]	12.24		8.12		10.38	
26.12.2023	27.12.2023	4551	63.00		15.06		7.66		8.12	
	Average		63.82		15.86		7.97		9.66	

SL NO		INSTRUMENT DETAILS		
1	Instrument Name	Respirable Dust Sampler (RDS)	Fine Particulate Sampler (FPS)	
2	Make & Model	Enviro instruments / EI-142 NL	Enviro instruments / EI-133	
3	Serial No	R.D.S./200-C-21	PM2.5 /PM10 Sampler / 160-K-20	
4	Calibration Date	08.07.2023	06.03.2023	
5	Calibration Due Date	07.07.2024	05.03.2024	
	As per NAAQMS Standard	ls (2009).		

INFERENCE

1. 2. 3. 4. 5. 6. Report Status: - Measured Values for the above parameters are within the limit.

**Analysed By** Priyanka B M Chemist

IOSF Authorised Signatory K. Ramakrishna Reddy Technical Manager

Note:

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.

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



# **GLOBALENVIRONMENT& MINING SERVICES**

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

#### **ANNEXURE-06** GEMS-LD/TF/11/01

# ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

- Name of the Industry **Customer Reference** Sample collected by Discipline Group Sample Type Particulars of Sample Collected Month Location **Duration of Monitoring Report Issued Date**
- BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. :
  - WO/ADMIN/FY24/R018 ÷
    - **Global Environment & Mining Services**
    - Chemical
  - Atmospheric Pollution
  - Ambient Air Quality Monitoring
  - **CO** Analyser
  - **DECEMBER-2023** :
    - A6-Gunda Tanda Village
- 1 Hour 5

:

:

06.01.2024 :

#### **RESULTS**

SI. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m <sup>3</sup> ]	Standard
1	04.12.2023	4124	< 0.01	
2	05.12.2023	4141	< 0.01	
3	11.12.2023	4265	< 0.01	
4	12.12.2023	4274	< 0.01	4.0
5	18.12.2023	4372	< 0.01	4.0
6	19.12.2023	4395	< 0.01	
7	25.12.2023	4534	< 0.01	
8	26.12.2023	4551	< 0.01	

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour) ND - Not Detected

SL NO	INST	RUMENT DETAILS
1	Instrument Name	CO Gas Detector
2	Make & Model	Vasthi Instruments Pvt Ltd & VS-70-70-CO
3	Serial No	180883821
4	Calibration Date	08.07.2023
5	Calibration Due Date	07.07.2024

As per NAAQMS Standards (2009),

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

**Analysed By** Priyanka B M Chemist





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# GLOBALENVIRONMENT& MINING SERVICES

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

GLOBAL Environment & Mining Services, Hosapete

RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)

#### **ANNEXURE-07** GEMS-LD/TF/11/01

#### FORTNIGHTLY FUGITIVE AIR QUALITY MONITORING DATA BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.

WO/ADMIN/FY24/R018

DECEMBER-2023(1st Fort Night)

IS 5182 (Part 4): 1999 RA 2014

GEMS/BMM/FM/2023-24/1549

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- Name of the Industry 1
- 2 **Customer Reference**
- Sample collected by 3
- Particulars of sample collected 4
- Month 5
- 6 Discipline
- 7 Group
- 8 Method adopted
- **Report Issued Date** 9
- **Report Number** 10

**RESULTS** 

**Atmospheric Pollution** 

Chemical

06.01.2024

			<u>NLSC</u>						
Sl. No.	Locati	on / Plant	Sample Code	Date Of Monitoring	Sar	Date Of nple Receipt	-	PM g/m³)	Standard
I. Bene	eficiation Plant-1								
1.	Main Canteen		4182	07.12.2023	0	8.12.2023		2.29	2000
2.	Main Crusher		4180	07.12.2023	0	8.12.2023	and the second se	3.67	2000
3.	Iron Ore Screen		4181	07.12.2023	0	8.12.2023	84	7.38	2000
	let Plant-I								
4.	Near Pellet Plant		4183	07.12.2023	0	8.12.2023		4.20	2000
5.	Annual Cooler Pel	let Discharge bin	4184	07.12.2023	0	8.12.2023	57	5.40	2000
6.	Pellet Stock Yard		4205	08.12.2023	C	9.12.2023	87	6.80	2000
	onge Iron Division-1	(kiln 1 & 2)							
7.	Control Room SID		4227	09.12.2023		9.12.2023		16.65	2000
8.	Near Product bin		4228	09.12.2023	0	9.12.2023		07.88	2000
9.	Coal Feeding Area	1	4229	09.12.2023	0	9.12.2023	18	02.42	2000
	luction Furnace & R								
10.	IF Office	0	4206	08.12.2023	(	9.12.2023	15	52.39	2000
11.	TMT Stock Yard		4207	08.12.2023	(	9.12.2023	30	8.11	2000
12.	RML Gasifier		4208	08.12.2023	(	9.12.2023	91	7.42	2000
	ver Plant 25 MW-1								
13.	25 MW ESP		4230	09.12.2023	(	9.12.2023	85	57.88	2000
14.	25 MW ACC		4257	11.12.2023	1	2.12.2023	99	99.06	2000
	e Services								
15.	PGP- coal handlin	g system	4209	08.12.2023	(	09.12.2023	28	31.37	2000
16.	IF Slag Crusher	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4231	09.12.2023	(	9.12.2023	98	36.73	2000
17.	Main Gate		4258	11.12.2023		12.12.2023	39	98.40	2000
17.	Fly ash Dump		4148	06.12.2023	(	07.12.2023	33	36.45	2000
ote: SPM	- Suspended Particulate ma	tter. (µg/m³), INFERENCE							
SL NO	INSTRUMENT DETAILS	GEMS-01	GEMS-02	GEMS-03		GEMS-04			MS-05
1	Instrument Name	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	t	Respirable D Sampler		Sa	able Dust mpler
2	Make & Model	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-	151	Greentech Instruments/ GT			entech nts/ GTI-151
3	Serial No	RDS / 241-DTC-2020	RDS / 243-DTL-2020	RDS / 244-DTL-20	020	RDS / 193-DTH	-2019	RDS / 19	7-DTH-2019
4	Calibration Date	01.04.2023	01.04.2023	01.04.2023		01.04.2023			



**Calibration Due Date** 

5

31.03.2024

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

31.03.2024

31.03.2024

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40SPF

03.2024

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

31.03.2024



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# **GLOBAL**ENVIRONMENT& MINING SERVICES

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

**GLOBAL Environment & Mining Services, Hosapete** 

RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)

#### **ANNEXURE-08** GEMS-LD/TF/11/01

# FORTNIGHTLY FUGITIVE AIR QUALITY MONITORING DATA

- Name of the Industry 1
- BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. : WO/ADMIN/FY24/R018

DECEMBER-2023(2nd Fort Night)

GEMS/BMM/FM/2023-24/1687

IS 5182 (Part 4)1999 RA 2014

- **Customer Reference** 2
  - Sample collected by 1
- Particulars of sample collected 4
- Month 5

3

- 6 Discipline
- 7 Group
- Method adopted 8
- **Report Issued Date** 9
- **Report Number** 10

#### RESULTS

Atmospheric Pollution

:

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:

:

:

1

Chemical

06.01.2024

			ILL	<u>50L15</u>				
Sl. NO.	Locatio	on / Plant	Sample Code	Date Of Monitoring	Date O Sample Re		SPM g/m³)	Standard
I. Benefi	ciation Plant-1							
1.	Main Canteen		4468	22.12.2023	23.12.20	23 10	13.07	2000
2.	Main Crusher		4466	22.12.2023	23.12.20	23 4	76.71	2000
3.	Iron Ore Screen		4467	22.12.2023	23.12.20	23 5	69.43	2000
II. Pellet	Plant-I							
4.	Near Pellet Plant		4469	22.12.2023	23.12.20		09.76	2000
5.	Annual Cooler Pel	llet Discharge bin	4470	22.12.2023	23.12.20		10.16	2000
6.	Pellet Stock Yard		4491	23.12.2023	23.12.20	23 19	73.18	2000
III. Spon	ge Iron Division-1	( kiln 1 & 2)						
7.	Control Room SID		4521	25.12.2023	26.12.20	23 18	816.74	2000
8.	Near Product bin		4522	25.12.2023	26.12.20	23 10	62.99	2000
9.	Coal Feeding Area	3	4523	25.12.2023	26.12.20	23 17	68.87	2000
	ction Furnace & R		1020		1			
10.	IF Office	oning Print	4492	23.12.2023	23.12.20	23 11	75.89	2000
10.	TMT Stock Yard		4493	23.12.2023	23.12.20	23 10	97.59	2000
11.	RML Gasifier		4494	23.12.2023	23.12.20	11	53.33	2000
	r Plant 25 MW-1							
13.	25 MW ESP		4524	25.12.2023	26.12.20	23 3	84.43	2000
14.	25 MW ACC		4543	26.12.2023	27.12.20		96.29	2000
VI. Site S			1010	20.12.2020				
15.	PGP- Coal handlir	na system	4495	23.12.2023	23.12.20	023 5	36.30	2000
15.	IF Slag Crusher	ig system	4525	25.12.2023	26.12.20		18.57	2000
10.	Main Gate		4544	26.12.2023	27.12.20	023 8	18.87	2000
17.	Fly ash Dump		4440	21.12.2023	22.12.20	and the second sec	62.75	2000
ote: SPM - S	Suspended Particulate ma	atter (µg/m³), INFERENCE		s are within the limits.	1	I		
CI	ISTRUMENT DETAILS	GEMS-01	GEMS-02	GEMS-03		GEMS-04		MS-05
	strument Name	Respirable Dust Sampler	Respirable Dust Sampler	Respirable D Sampler		spirable Dust Sampler	Sa	able Dust mpler
2 Ma	ake & Model	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-1	Greentech 51 Instruments/ G		Greentech ments/ GTI-151		entech nts/ GTI-151
3 Se	erial No	RDS / 241-DTC-2020	RDS / 243-DTL-202		-2020 RDS /	193-DTH-2019	RDS / 19	7-DTH-2019

Analysed By Priyanka B M Chemist

01.04.2023

31.03.2024

4

5

**Calibration Date** 

**Calibration Due Date** 

HOSPE Authorised S tor K. Ramakrishna Reddy **Technical Manager** 

01.04.2023

31.03.2024

nent a

01.04.2023

31.03.2024

Recognised by Ministry of Environment, Forest and Climate Change for Laboratory

01.04.2023

31.03.2024

01.04.2023

31.03.2024



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# **GLOBALENVIRONMENT& MINING SERVICES**

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

#### **ANNEXURE-09** GEMS-LD/TF/11/01

# PTNICHTLY FUCITIVE AIR OHALITY DATA MONITORING

	<u>FORTNIGHTLY FUG</u>					
	<ol> <li>Name of the Industry</li> <li>Customer Reference</li> <li>Sample collected by</li> <li>Particulars of sample collected</li> <li>Month</li> <li>Discipline</li> <li>Group</li> <li>Method adopted</li> <li>Report Issued Date</li> <li>Report Number</li> </ol>	: WO/ADMI : GLOBAL EI : RDS Sampl : <b>DECEMBE</b> : Chemical : Atmosphei : IS 5182 (P : <b>06.01.20</b> )	N/FY24/R018 nvironment & Mi ler (GEMS-01, GE <b>R-2023(1st Fort</b> ric Pollution art 4): 1999 RA 2 24 IM/FM/2023-24	MS-02, GEMS-03, ( <b>Night)</b> 2014		
		Sample	Date Of	Date Of	SPM	Standard
Sl. No.	Location / Plant	Code	Monitoring	Sample Receipt	(μg/m³)	
I. Benefic	ciation Plant-II				100.14	2000
1.	Ball Mill Area (Zero Meter)	4072	01.12.2023	02.12.2023	183.14	2000 2000
2.	Iron Ore Hopper (Near Monsoon Shed)	4074	01.12.2023	02.12.2023	512.95 308.76	2000
3.	Concentrate Thickner	4073	01.12.2023	02.12.2023	308.70	2000
II. Pellet			04 42 2022	02.12.2023	311.94	2000
4.	PR-6	4075	01.12.2023 01.12.2023	02.12.2023	276.32	2000
5.	Annual Cooler Pellet Discharge bin	4076	01.12.2023	02.12.2023	198.11	2000
6.	Additive Grinding Building	4089	02.12.2023	02.12.2023	170.11	2000
	ge Iron Division -2 (Kiln 1 & 2)	4090	02.12.2023	02.12.2023	1844.27	2000
7.	Control room	4090	02.12.2023	02.12.2023	1768.14	2000
8.	Near Weigh bridge (dispatch)	4113	02.12.2023	05.12.2023	414.02	2000
9.	Pellet Storage bin	4092	02.12.2023	02.12.2023	1767.86	2000
10.	Transfer House area	4092	02.12.2023	02.12.2023	1687.05	2000
11.	Production Separation Bin-PSB	4093	02.12.2023	02.12.2020	1 1001100	
	ge Iron Division -2 (Kiln 3 & 4) Near Control room	4114	04.12.2023	05.12.2023	1911.11	2000
12.		4116	04.12.2023	05.12.2023	1540.13	2000
13.	Near Coal Crusher	4115	04.12.2023	05.12.2023	1725.14	2000
14.		4117	04.12.2023	05.12.2023	1097.79	2000
15.	Coal Drier		0112010000			
16.	Near Tipping point	4130	05.12.2023	06.12.2023	336.04	2000
	Monsoon Shed (CPU)	4131	05.12.2023	06.12.2023	742.64	2000
17. 18.	McC Room (2 <sup>nd</sup> Gate)	4132	05.12.2023	06.12.2023	528.35	2000
	er Plant-70 MW			1		
19.	70MW-DM Plant (Near R.O. Plant)	4129	05.12.2023	06.12.2023	612.67	2000
20.	2 <sup>nd</sup> gateweigh bridge Near Coal Screen	4144	06.12.2023	07.12.2023	413.79	2000
20.	L guterreign bridge neur oour bereen				000.00	0000

20. dgateweigh bi uge 06.12.2023 2000 988.28 05.12.2023 4134 CFBC boiler 21. VII. 2X70MW Power Plant 2000 307.09 07.12.2023 4145 06.12.2023 Near Boiler 22. 07.12.2023 240.37 2000 06.12.2023 Near Coal storage Shed 4146 23. 2000 06.12.2023 07.12.2023 331.71 4147 **CPP** Dolochar Process Area 24.

Note: SPM -Suspended Particulate matter (µg/m<sup>3</sup>), INFERENCE: The Measured Values are within the limits.

SL NO	INSTRUMENT DETAILS	GEMS-01	GEMS-02	GEMS-03	GEMS-04	GEMS-05	
1	Instrument Name	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	
2	Make & Model	Greentech		Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	
3	Serial No	RDS / 241-DTC-2020	RDS / 243-DTL-2020	RDS / 244-DTL-2020	RDS / 193-DTH-2019	RDS / 197-DTH-2019	
4	Calibration Date	01.04.2023	01.04.2023	01.04.2023	01.04.2023	01.04.2023	
5	Calibration Due Date	31.03.2024	31.03.2024	31.03.2024	31.03.2024	3103.2024	
	P	kl			Authorised Sign	OSPET CO	

Analysed By Priyanka B M Chemist

K. Ramakrishna Reddy 3 Technical Manager

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



# NABET

# **GLOBALENVIRONMENT& MINING SERVICES**

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

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

#### FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING

		A REAL PROPERTY OF A REAL PROPER	
1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/RO18
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)
5	Month	:	DECEMBER-2023(2 <sup>nd</sup> Fort Night)
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Method adopted	:	IS 5182 (Part 4): 1999 RA 2014
9	Report Issued Date	:	06.01.2024
10	Report Number	:	GEMS/BMM/FM/2023-24/1655

RESULTS

				RESU	ILIS			
SI. No.	Lc	ocation / Plant		Sample Code	Date Of Monitoring	Date Of Sample Receipt	SPM (μg/m³)	Standard
I. Benefic	ciation Plant-II			I		· · · · · ·		
1.	Ball Mill Area (Zero	Meter)		4348	16.12.2023	16.12.2023	424.86	2000
2.		Vear Monsoon Shed)		4350	16.12.2023	16.12.2023	654.18	2000
3.	Concentrate Thickr			4349	16.12.2023	16.12.2023	396.68	2000
II. Pellet					I			
4.	PR-6			4351	16.12.2023	16.12.2023	330.60	2000
5.	Annual Cooler Pelle	et Discharge bin		4352	16.12.2023	16.12.2023	519.98	2000
6.	Additive Grinding E	Building		4359	18.12.2023	19.12.2023	791.84	2000
III. Spong	ge Iron Division -2 (I	Kiln 1 & 2)						
7.	Control room			4360	18.12.2023	19.12.2023	1820.42	2000
8.	Near Weigh bridge	(dispatch)		4361	18.12.2023	19.12.2023	1483.36	2000
9.	Pellet Storage bin			4362	18.12.2023	19.12.2023	1845.79	2000
10.	Transfer House are	a		4363	18.12.2023	19.12.2023	1696.71	2000
11.	Production Separat	cion Bin-PSB		4396	19.12.2023	20.12.2023	1522.21	2000
IV. Spong	ge Iron Division -2 (I	Kiln 3 & 4)						
12.	Near Control room			4397	19.12.2023	20.12.2023	1286.91	2000
13.	Near Coal Crusher			4399	19.12.2023	20.12.2023	1832.31	2000
14.	Near Product bin			4398	19.12.2023	20.12.2023	1062.59	2000
15.	Coal Dryer			4400	19.12.2023	20.12.2023	827.42	2000
V. Wagor	n Tipper/RMHS							
16.	Near Tipping point			4413	20.12.2023	21.12.2023	772.93	2000
17.	Monsoon Shed (CPU	U)		4414	20.12.2023	21.12.2023	457.07	2000
18.	MCC Room (2 <sup>nd</sup> Gat	e)		4415	20.12.2023	21.12.2023	976.55	2000
VI. Powe	r Plant-70 MW							
19.	70MW-DM Plant (N	lear R.O. Plant)		4416	20.12.2023	21.12.2023	650.11	2000
20.	2 <sup>nd</sup> gateweigh bridg	e Near Coal Screen		4436	21.12.2023	22.12.2023	761.40	2000
21.	CFBC boiler			4417	20.12.2023	21.12.2023	425.88	2000
VII. 2X70	OMW Power Plant							
22.	Near Boiler			4437	21.12.2023	22.12.2023	465.89	2000
23.	Near Coal storage S	shed		4438	21.12.2023	22.12.2023	318.72	2000
24.	Dolochar Processin			4439	21.12.2023	22.12.2023	1148.29	2000
		matter (µg/m³), INFE						
SL NO IN	<b>STRUMENT DETAILS</b>	GEMS-01	GEM		GEMS-03	GEMS-04		1S-05
1 In:	strument Name	Respirable Dust Sampler	Respiral Sam	ble Dust pler	Respirable Dust Sampler	Respirable Dust Sampler		able Dust npler
2 Ma	ake & Model	Greentech Instruments/ GTI- 151	Green Instrument	ntech ts/ GTI-151	Greentech Instruments/GTI-15	Greentech 1 Instruments/ GTI-15		entech ts/ GTI-151

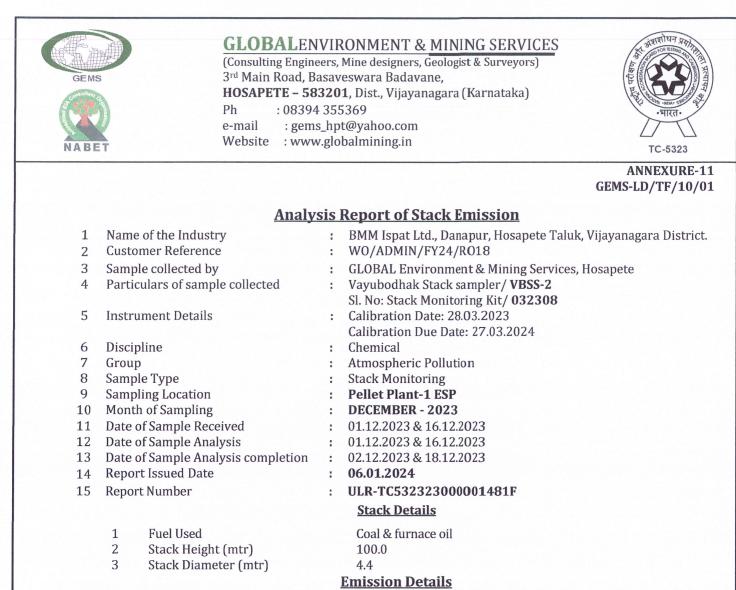
151 RDS / 241-DTC-RDS / 197-DTH-2019 3 Serial No RDS / 243-DTL-2020 RDS / 244-DTL-2020 RDS / 193-DTH-2019 2020 01.04.2023 nment 8 01.04.2023 **Calibration Date** 01.04.2023 01.04.2023 4 01.04.2023 31.03.2024 31.03.2024 5 **Calibration Due Date** 31.03.2024 31.03.2024 1.03.2024 Authorised Signatory 5 Analysed By

Priyanka B M Chemist

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Authorised Signator K. Ramakrisona Region Technical Manager

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				Res	sult		
SI. No.	Parameters	Method	Unit	1 <sup>st</sup> Fort Night	2 <sup>nd</sup> Fort Night	Permissible Limit	
	Date of Monitoring			01.12.2023	16.12.2023	Linne	
	Sample Code			4077	4353		
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	0C	29	28	-	
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	0C	76	74	-	
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	5.18	5.33	-	
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m³/hr	283585	291907	-	
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm <sup>3</sup> /hr	242081	250456	-	
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm <sup>3</sup>	33.99	35.42	50	
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm <sup>3</sup>	162.0	187.0	NS	
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm <sup>3</sup>	68.0	72.0	NS	
9	Carbon Monoxide	GEMS/SOP/69	%	0.013	0.016	NS	

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

Analysed By Privanka B M Chemist

Note

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

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# **GLOBALENVIRONMENT & MINING SERVICES**

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



#### **ANNEXURE-12** GEMS-LD/TF/10/01

# **Analysis Report of Stack Emission**

1 2	Name of the Industry Customer Reference	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services, Hosapete
4	Particulars of sample collected	:	Vayubodhak Stack sampler / VBSS-2
			Sl. No: Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Sampling Location	;	2X100 TPD Sponge iron plant Kiln 1 & 2
10	Month of Sampling	:	DECEMBER - 2023
11	Date of Sample Received	:	07.12.2023 & 22.12.2023
12	Date of Sample Analysis	:	08.12.2023 & 23.12.2023
13	Date of Sample Analysis completion	:	09.12.2023 & 25.12.2023
14	Report Issued Date	:	06.01.2024
15	Report Number	:	ULR-TC532323000001552F
			Stack Details

1	Fuel Used
2	Stack Height (mtr)
3	Stack Diameter (mtr)

#### Coal 60.0 2.00

#### **Emission Details**

				Res		
SI. No.	Parameters	Method	Unit	1 <sup>st</sup> Fort Night	2 <sup>nd</sup> Fort Night	Permissible Limit
	Date of Monitoring			07.12.2023	22.12.2023	
	Sample Code			4187	4473	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	<sup>0</sup> C	28	29	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	<sup>0</sup> C	172	175	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.56	6.50	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m³/hr	74201	73523	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm <sup>3</sup> /hr	49651	48899	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm <sup>3</sup>	20.10	24.54	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm <sup>3</sup>	92.0	104.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm <sup>3</sup>	27.0	32.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.317	0.296	1

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

**Analysed By** Priyanka B M Chemist

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

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SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ºC	TS ºC	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
Induction Furnance 1 & 2											
1	Induction Furnance 1	12.12.2023	4276	Electric	28	41	5.11	30	1.0	5.91	150
2	Induction Furnance 2	12.12.2023	4277	Power	29	44	5.20	30	1.0	9.52	150

SI. No	Induction Furnance 1 & 2	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std	
1	Induction Furnance 1	24851	23346	-	
2	Induction Furnance 2	14026	6439.4	-	

Parameter	Protocol
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

Analysed By

Priyanka B M Chemist

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Author inator K. Ramakrishna Redel Technical Manager

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2	Stack Height (	mtr)
4	Stack Height	muj

3 Stack Diameter (mtr)

#### **Emission Details**

0.8

				Res			
SI. No.	Parameters	Method	Unit	1 <sup>st</sup> Fort Night	2 <sup>nd</sup> Fort Night	Permissible Limit	
NO.	Date of Monitoring			06.12.2023	21.12.2023		
	Sample Code			4151	4468		
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	29	28	-	
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	376	378	-	
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	7.76	7.60	-	
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m³/hr	14026	13754	-	
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm <sup>3</sup> /hr	6439.4	6293.7	-	
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm <sup>3</sup>	12.79	11.96	50	
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm <sup>3</sup>	23.0	18.0	NS	
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm <sup>3</sup>	308.0	293.0	NS	
9	Carbon Monoxide	GEMS/SOP/69	%	0.037	0.046	NS	

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

**Analysed By** 

Priyanka B M Chemist

Authorised Sign K. Ramakrishna Redd **Technical Manager** 

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Analysis Report of Stack Emission1Name of the Industry:BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara Dis2Customer Reference:W0/ADMIN/FY24/R0183Sample collected by:GLOBAL Environment & Mining Services, Hosapete4Particulars of sample collected:Vayubodhak Stack sampler / VBSS-25Instrument Details:Calibration Date: 28.03.20236Discipline:Chemical7Group:Atmospheric Pollution8Sample Type:Stack Monitoring9Sample Type:Stack Monitoring9Sample Iocation:AFBC Boiler ESP (25 MW Power Plant)10Month of Sample Received:-11Date of Sample Analysis:-12Date of Sample Analysis completion::13Date of Sample Analysis completion:-14Report Issued Date::15Report Number::16Fuel UsedCoal2Stack Ibiameter (mtr):2.5::15Report Number:16ParametersMethod17FortZ <sup>au</sup> Fort18No.Date of Monitoring19Date of Gample (mtr):2Stack Ibiameter (mtr):2Stack Diameter (mtr):3Stack Diameter (mtr):3Date of	strict
2       Customer Reference       :       WO/ADMIN/FY24/R018         3       Sample collected by       :       GLOBAL Environment & Mining Services, Hosapete         4       Particulars of sample collected       :       Vayubodhak Stack sampler/VBSS-2 SI. No: Stack Monitoring Kit/032308         5       Instrument Details       :       Calibration Date: 28.03.2023 Calibration Due Date: 27.03.2024         6       Discipline       :       Chemical         7       Group       :       Atmospheric Pollution         8       Sample Type       :       Stack Monitoring         9       Sampling Location       :       AFBC Boiler ESP (25 MW Power Plant)         10       Month of Sampling       :       -         11       Date of Sample Received       :       -         12       Date of Sample Analysis completion       :       -         13       Date of Sample Analysis completion       :       -         14       Report Issued Date       :       -         15       Report Number       :       :         1       Fuel Used       Coal         2       Stack Diameter (mtr)       :       2.5         3       Stack Diameter (mtr)       :       2.5     <	strict
Emission Details       Parameters     Result       Sl.     Method     Unit     1st Fort     2nd Fort       No     Night     Night     Night	
Sl.     Parameters     Method     Unit     1st Fort     2nd Fort       No     Method     Night     Night	
No. Date of Monitoring	Permissible Limit
Sample Code	
1 Amblent remperature 10. Theo (caref) free (carefy)	-
2 Stack reinperature for 11200 (care 2) and (construction)	-
	-
5 Gas now rate at MTP 1011255(1 at co) (at 2017) (m 2	-
	- 50
	- 50 NS
8         Nitrogen Dioxide         IS:11255 (Part7): 2005 (RA 2017)         mg/Nm <sup>3</sup> 9         Carbon Monoxide         GEMS/SOP/69         %	- 50 NS NS

Note: NS- Not Specified. RA: Reaffirmed,

mente U HOSPET Authorised Signatory K. Ramakrishna Reddy 500 Technical Manager

Note:

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GEMS GEMS GEMS GEMS GEMS GEMS GEMS GEMS		HOSAPETE – 583201, Dist., Vijayanagara (Karnataka) Ph : 08394 355369 e-mail : gems_hpt@yahoo.com Website : www.globalmining.in		
			ANNEXURE GEMS-LD/TF/10/	
	Anal	vsis	Report of Stack Emission	
1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara Distri	
2	Customer Reference	:	WO/ADMIN/FY24/RO18	
3	Sample collected by	:	GLOBAL Environment & Mining Services, Hosapete	
4	Particulars of sample collected	:	Vayubodhak Stack sampler/ <b>VBSS-2</b> Sl. No: Stack Monitoring Kit/ <b>032308</b>	
5	Instrument Details	:	Calibration Date: 28.03.2023 Calibration Due Date: 27.03.2024	
6	Discipline	:	Chemical	
7	Group	:	Atmospheric Pollution	
8	Sample Type	:	Stack Monitoring	
9	Month of Sampling	:	DECEMBER- 2023(1st Fort Night)	
10	Date of Sample Received	:	11.12.2023	
11	Date of Sample Analysis	:	12.12.2023	
12	Date of Sample Analysis completion	:	13.12.2023	
13	Report Issued Date	:	06.01.2024	
14	Report Number	:	ULR-TC532323000001596F	

SI. N O	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Heigh t (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
Chimneys attached to Bag Filter (De dusting Units)											
Bene	ficiation Plant -I										
1	Iron Ore dump hopper	11.12.2023	4259	-	29	37	4.69	25	0.40	18.68	50
2	Iron Ore Screen bin	11.12.2023	4260	-	30	35	4.82	30	0.40	17.46	50

SI. No	Beneficiation Plant	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
1	Iron Ore dump hopper	2122	2047	-
2	Iron Ore Screen bin	2181	2096	-

Parameter	Protocol
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

Analysed By

Priyanka B M Chemist

OSPE Authorised Signatory 52 K. Ramakrishna Reddy **Technical Manager** 

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SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fue l Use d	Ta ºC	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
	Chimneys attached to Bag Filter (De dusting Units)										
RM	HS										
3	Screen, Coal Crusher (CPU)	11.12.2023	4261	-	29	37	5.19	3.0	0.30	34.90	50
4	Main Crusher	12.12.2023	4278	-	30	35	4.70	35	0.50	12.43	50
			Casf	ournati	at Cto	alt	Cas flow r	ato at NTE		EDCR	

SI. No	<b>Beneficiation Plant</b>	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
3	Screen, Coal Crusher (CPU)	31304	30076	-
4	Main Crusher	3627	3505	-

Parameter	Protocol
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

**Analysed By** Priyanka B M Chemist

Authorised K. Ramakrishna Reddy **Technical Manager** 

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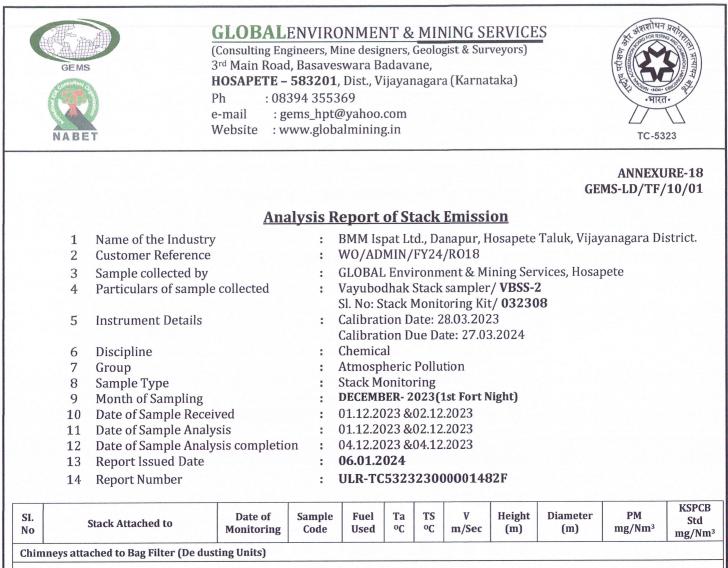
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Pelle	et Plant -I										
5	AGB Main Bag Filter	01.12.2023	4078	-	30	38	4.66	6.5	0.60	22.30	50
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	01.12.2023	4079	-	31	36	4.75	3.0	0.30	20.54	50
7	Bentonite Powder bin top bag filter	02.12.2023	4095	-	30	36	4.61	3.0	0.30	26.25	50
8	H-4 Conveyor discharge bag filter	-	-	-	-	-	-	7.0	0.50	-	50
9	P-1 Bag Filter	02.12.2023	4096	-	31	38	4.92	7.0	0.50	31.31	50

SI. No	Pellet Plant	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
5	AGB Main Bag Filter	4744	4534	
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	1209	1162	
7	Bentonite Powder bin top bag filter	1173	1128	-
8	H-4 Conveyor discharge bag filter	-	-	-
9	P-1 Bag Filter	3485	3328	-

Parameter	Protocol
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)
alysed By	Authorised Si
ivanka B M	K. Ramakrishr

**Technical Manager** 

Priyanka B M Chemist

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#### **ANNEXURE-19** GEMS-LD/TF/10/01

#### **Analysis Report of Stack Emission**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/RO18
3	Sample collected by	:	GLOBAL Environment & Mining Services, Hosapete
4	Particulars of sample collected	:	Vayubodhak Stack sampler/ VBSS-2
			Sl. No: Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	DECEMBER- 2023(1st Fort Night)
10	Date of Sample Received	:	09.12.2023
11	Date of Sample Analysis	:	11.12.2023
12	Date of Sample Analysis completion	:	13.12.2023
13	Report Issued Date	:	06.01.2024
14	Report Number	:	ULR-TC532323000001579F

SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ⁰C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
Chin	Chimneys attached to Bag Filter (De dusting Units)										
2 X 100 TPD Sponge Iron Kiln 1 & 2											
10	Cooler-1 Discharge & Blending Chute	09.12.2023	4232		31	35	4.54	30	1.20	24.40	50
11	Cooler-2 Discharge	-	-		-	-	-	30	1.20	-	50
12	Intermediate Bin & Blending	09.12.2023	4234		30	36	4.53	30	1.20	28.91	50
13	Product House	-	-		-	-	-	30	1.20	-	50

SI. No	2 X 100 TPD Sponge Iron Kiln 1 & 2	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
10	Cooler-1 Discharge & Blending Chute	18324	17713	-
11	Cooler-2 Discharge	-	-	-
12	Intermediate Bin & Blending	19668	18913	-
13	Product House	-	-	-

Parameter	Protocol
Particulate Matter (mg/Nm <sup>3</sup> )	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

**Analysed By** Priyanka B M Chemist

Authorised Şigu K. Ramakrishna Redd Technical Manager

Note

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#### **ANNEXURE-20** GEMS-LD/TF/10/01

# **Analysis Report of Stack Emission**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/RO18
3	Sample collected by	:	GLOBAL Environment & Mining Services, Hosapete
4	Particulars of sample collected	:	Vayubodhak Stack sampler/ VBSS-2
			Sl. No: Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	DECEMBER - 2023 (2nd Fort Night)
10	Date of Sample Received	:	28.12.2023
11	Date of Sample Analysis	:	29.12.2023
12	Date of Sample Analysis completion	:	30.12.2023
13	Report Issued Date	:	06.01.2024
14	Report Number	:	ULR-TC532323000001741F

SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ⁰C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
Induction Furnance 1 & 2											
1	Induction Furnance 1	28.12.2023	4587	Electric	28	40	5.07	30	1.0	4.28	50
2	Induction Furnance 2	28.12.2023	4588	Power	29	43	5.13	30	1.0	8.60	50

SI. No	Induction Furnance 1 & 2	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
1	Induction Furnance 1	20666	19673	-
2	Induction Furnance 2	24550	23133	-

Parameter	Protocol
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

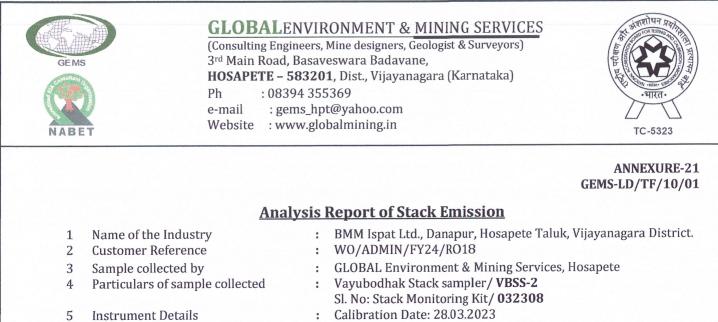
**Analysed By** Priyanka B M Chemist

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

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Note

1. 2. 3. 4. 5. 6.



1 2	Name of the Industry Customer Reference	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. WO/ADMIN/FY24/RO18
3	Sample collected by	:	GLOBAL Environment & Mining Services, Hosapete
4	Particulars of sample collected	:	Vayubodhak Stack sampler/ VBSS-2
			Sl. No: Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	DECEMBER- 2023(2nd Fort Night)
10	Date of Sample Received	:	27.12.2023
11	Date of Sample Analysis	:	28.12.2023
12	Date of Sample Analysis completion	:	29.12.2023
13	Report Issued Date	:	06.01.2024
14	Report Number	:	ULR-TC532323000001724F

SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ºC	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
Chimneys attached to Bag Filter (De dusting Units)											
Beneficiation Plant											
1	Iron Ore dump hopper	27.12.2023	4554		30	35	4.78	25	0.40	17.85	50
2	Iron Ore Screen bin	27.12.2023	4555		31	36	4.90	30	0.40	15.24	50

SI. No	Beneficiation Plant	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
1	Iron Ore dump hopper	2167	2090	-
2	Iron Ore Screen bin	2217	2131	-

Parameter	Protocol
Particulate Matter (mg/Nm <sup>3</sup> )	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

Analysed By Priyanka B M Chemist

Authorised Signal K. Ramakrishna Rede **Technical Manager** 

Note:

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1. 2.

3. 4. 5. 6.



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#### **ANNEXURE-22** GEMS-LD/TF/10/01

## **Analysis Report of Stack Emission**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/RO18
3	Sample collected by	:	GLOBAL Environment & Mining Services, Hosapete
4	Particulars of sample collected	:	Vayubodhak Stack sampler/ VBSS-2
			Sl. No: Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	DECEMBER- 2023(2nd Fort Night)
10	Date of Sample Received	:	29.12.2023
11	Date of Sample Analysis	:	30.12.2023
12	Date of Sample Analysis completion	:	30.12.2023
13	Report Issued Date	:	06.01.2024
14	Report Number	:	ULR-TC532323000001742F

SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ºC	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
Chin	Chimneys attached to Bag Filter (De dusting Units)										
RMH	łS										
3	Screen, Coal Crusher (CPU)	29.12.2023	4602	-	30	38	5.25	3.0	0.30	35.24	50
4	Main Crusher	-	-	-	-	-	-	35	0.50	-	50

SI. No	Beneficiation Plant	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std	
3	Screen, Coal Crusher (CPU)	33429	31994	-	
4	Main Crusher	-	-	-	

Parameter	Protocol	
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)	
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	

Analysed By Priyanka B M Chemist

ignator Authoris K. Ramakrishna Redef Technical Manager

Note

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#### **ANNEXURE-23** GEMS-LD/TF/10/01

#### **Analysis Report of Stack Emission**

BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. Name of the Industry 1 : WO/ADMIN/FY24/RO18 2 **Customer Reference** 5 GLOBAL Environment & Mining Services, Hosapete Sample collected by 3 : Particulars of sample collected Vayubodhak Stack sampler/ VBSS-2 : 4 Sl. No: Stack Monitoring Kit/ 032308 Calibration Date: 28.03.2023 5 **Instrument Details** : Calibration Due Date: 27.03.2024 Discipline : Chemical 6 **Atmospheric Pollution** 7 Group 2 **Stack Monitoring** 8 Sample Type : DECEMBER - 2023 (2nd Fort Night) 9 Month of Sampling : : 16.12.2023 & 18.12.2023 Date of Sample Received 10 18.12.2023 & 18.12.2023 11 Date of Sample Analysis : 12 Date of Sample Analysis completion : 19.12.2023 & 19.12.2023 **Report Issued Date** : 06.01.2024 13 ULR-TC532323000001663F 14 **Report Number** :

SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ºC	TS ºC	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/N m <sup>3</sup>
Chin	Chimneys attached to Bag Filter (De dusting Units)										
Pellet Plant-I											
5	AGB Main Bag Filter	16.12.2023	4354		33	35	4.52	6.5	0.60	21.36	50
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	16.12.2023	4356		29	36	4.70	3.0	0.30	25.62	50
7	Bentonite Powder bin top bag filter	18.12.2023	4373		30	36	4.44	3.0	0.30	21.80	50
8	H-4 Conveyor discharge bag filter	-	-		-	-	-	7.0	0.50	-	50
9	P-1 Bag Filter	18.12.2023	4374		30	38	4.88	7.0	0.50	32.31	50

SI. No	Pellet Plant	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
5	AGB Main Bag Filter	4626	4463	-
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	1198	1151	
7	Bentonite Powder bin top bag filter	1132	1089	-
8	H-4 Conveyor discharge bag filter	-	-	-
9	P-1 Bag Filter	3456	3302	-

Parameter	Protocol
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)
malysed By	Authorised Signitions * 5
	K D laide D
riyanka B M	K. Ramakrishna Reddy
Chemist	Technical Manager

Note The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.

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1.

2. 3.



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#### **ANNEXURE-24** GEMS-LD/TF/10/01

# Analysis Report of Stack Emission

Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
	:	WO/ADMIN/FY24/R018
	:	GLOBAL Environment & Mining Services, Hosapete
Particulars of sample collected	:	Vayubodhak Stack sampler/ VBSS-2
r ur tiourur o'r onn-r		Sl. No: Stack Monitoring Kit/ 032308
Instrument Details	:	Calibration Date: 28.03.2023
mot unent becane		Calibration Due Date: 27.03.2024
Discipline	:	Chemical
·	:	Atmospheric Pollution
1	:	Stack Monitoring
	:	DECEMBER - 2023 (2nd Fort Night)
	:	26.12.2023 &27.12.2023
	:	27.12. 2023&28.12.2023
Date of Sample Analysis completion	:	28.12.2023&29.12.2023
	:	06.01.2024
Report Number	:	ULR-TC532323000001724F
	Name of the Industry Customer Reference Sample collected by Particulars of sample collected Instrument Details Discipline Group Sample Type Month of Sampling Date of Sample Received Date of Sample Analysis Date of Sample Analysis Date of Sample Analysis completion Report Issued Date Report Number	Customer Reference:Sample collected by:Particulars of sample collected:Instrument Details:Discipline:Group:Sample Type:Month of Sampling:Date of Sample Received:Date of Sample Analysis:Date of Sample Analysis completion:Report Issued Date:

14	Report Number	
----	---------------	--

SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
Chim	Chimneys attached to Bag Filter (De dusting Units)										
2 X 100 TPD Sponge Iron Kiln 1 & 2											
10	Cooler-1 Discharge & Blending Chute	26.12.2023	4546		30	35	4.68	30	1.20	22.30	50
11	Cooler-2 Discharge	-	-		-	-	-	30	1.20	-	50
11	Intermediate Bin &	27.12.2023	4552		28	35	4.49	30	1.20	25.33	50
13	Blending Product House	27.12.2023	4553		30	38	5.25	30	1.20	35.35	50

SI. No	2 X 100 TPD Sponge Iron Kiln 1 & 2	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
10	Cooler-1 Discharge & Blending Chute	19077	18405	-
11	Cooler-2 Discharge	-	-	-
12	Intermediate Bin & Blending	18283	17680	-
13	Product House	20425	19548	-

Protocol
IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
IS-11255(Part 03) (RA 2014)
IS-11255(Part 03) (RA 2014)

**Analysed By** Priyanka B M Chemist

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

Note

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2. 3. 4. 5. 6.

1.



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#### **ANNEXURE-25** GEMS-LD/TF/10/01

### **Analysis Report of Stack Emission**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Vayubodhan Stack sampler/ VBSS2
			Sl. No: Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Sampling Location	:	Pellet Plant-2 ESP
10	Month of Sampling	:	DECEMBER-2023
11	Date of Sample Received	:	-
12	Date of Sample Analysis	:	-
13	Date Sample Analysis Completion	:	-
14	Report Issued Date	:	06.01.2024
15	Report Number	:	-
			Stack Details
	1 Fuel Used		Coal
	2 Stack Height (mtr)		100
	2 Stack Height (Intri)		

3 Stack Diameter (mtr)

#### 4.4 **Emission Details**

				Res		
SI. No.	Parameters	Method	Unit	1 <sup>st</sup> Fort Night	2 <sup>nd</sup> Fort Night	Permissible Limit
NO.	Date of Monitoring			-	-	Limit
	Sample Code			-	-	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	٥C			-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	<sup>0</sup> C			-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec			-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m³/hr			-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm <sup>3</sup> /hr	Shut down	Shut down	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm <sup>3</sup>			50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm <sup>3</sup>			NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005(RA 2017)	mg/Nm <sup>3</sup>			NS
9	Carbon Monoxide	GEMS/SOP/69	%			NS

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

Authorised Signatory K. Ramakrishna Reddy Technical Manager

Note: 1. 2.

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#### **ANNEXURE-26** GEMS-LD/TF/10/01

### Analysis Report of Stack Emission

1 2 3 4	Name of the Industry Customer Reference Sample collected by Particulars of sample collected	: : : : : : : : : : : : : : : : : : : :	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. WO/ADMIN/FY24/R018 GLOBAL Environment & Mining Services Vayubodhan Stack sampler/ <b>VBSS2</b> Sl.No:Stack Monitoring Kit/ <b>032308</b>			
5	Instrument Details	:	Calibration Date: 28.03.2023 Calibration Due Date: 27.03.2024			
6	Discipline	:	Chemical			
7	Group	:	Atmospheric Pollution			
8	Sample Type	:	Stack Monitoring			
9	Sampling Location	:	SID Axis 1 &2			
10	Month of Sampling	:	DECEMBER-2023			
11	Date of Sample Received	:	02.12.2023 & 18.12.2023			
12	Date of Sample Analysis	:	04.12.2023 & 19.12.2023			
13	Date Sample Analysis Completion	;	04.12.2023 & 20.12.2023			
14	Report Issued Date	:	06.01.2024			
15	Report Number	:	ULR-TC532323000001494F			
	Stack Details					
			Cool			

1	Fuel Used
2	Stack Height (mtr)
3	Stack Diameter (mtr)

Coal 70.0 3.00

# **Emission Details**

				Res		
SI.	Parameters	Method	Unit	1 <sup>st</sup> Fort Night	2 <sup>nd</sup> Fort Night	Permissible Limit
No.	Date of Monitoring			02.12.2023	18.12.2023	
	Sample Code			4094	4364	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	30	29	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	129	127	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) – 1985 (RA 2014)	m/sec	6.03	5.83	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m³/hr	147967	147967	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm <sup>3</sup> /hr	109428	110221	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm <sup>3</sup>	32.77	38.47	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm <sup>3</sup>	682.0	739.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005(RA 2017)	mg/Nm <sup>3</sup>	40.0	65.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.097	0.082	1%

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

Analysed By Priyanka B M Chemist

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

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Note

1. 2. 3. 4. 5. 6.



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#### **ANNEXURE-27** GEMS-LD/TF/10/01

### **Analysis Report of Stack Emission**

1 2 3 4	Name of the Industry Customer Reference Sample collected by Particulars of sample collected	: : : :	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. WO/ADMIN/FY24/R018 GLOBAL Environment & Mining Services Vayubodhan Stack sampler/ <b>VBSS2</b> Sl.No:Stack Monitoring Kit/ <b>032308</b>
5	Instrument Details	;	Calibration Date: 28.03.2023 Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Sampling Location	:	SID Axis 3&4
10	Month of Sampling	:	DECEMBER-2023
11	Date of Sample Received	:	04.12.2023 & 19.12.2023
12	Date of Sample Analysis	:	05.12.2023 & 20.12.2023
13	Date Sample Analysis Completion	:	05.12.2023 & 20.12.2023
14	Report Issued Date	:	06.01.2024
15	Report Number	:	ULR-TC532323000001527F
			Stack Details

1	Fuel Used
2	Stack Height (mtr)
3	Stack Diameter (mtr)

Coal 70.0 3.00

# **Emission Details**

				Res	sult		
Sl.	Parameters	Method	Unit	1 <sup>st</sup> Fort Night	2 <sup>nd</sup> Fort Night	Permissible Limit	
No.	Date of Monitoring		04.12.2023	19.12.2023	Linne		
	Sample Code			4152	4401		
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	<sup>0</sup> C	29	28	-	
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	<sup>0</sup> C	132	131	-	
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	5.84	5.94	-	
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m³/hr	155857	155857	-	
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm <sup>3</sup> /hr	116068	114903	-	
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm <sup>3</sup>	35.53	42.62	50	
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm <sup>3</sup>	866.0	318	NS	
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm <sup>3</sup>	32.0	118	NS	
9	Carbon Monoxide	GEMS/SOP/69	%	0.021	0.028	1%	

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

**Analysed By** Priyanka B M Chemist

Note 1. 2 3. 4.

6



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#### **ANNEXURE-28** GEMS-LD/TF/10/01

# **Analysis Report of Stack Emission**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/RO18
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Vayubodhan Stack sampler/ VBSS2
			Sl.No:Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Sampling Location	:	1X70 MW-CFBC Boiler ESP
10	Month of Sampling	:	DECEMBER-2023
11	Date of Sample Received	:	05.12.2023 & 20.12.2023
12	Date of Sample Analysis	:	06.12.2023 & 21.12.2023
13	Date Sample Analysis Completion	:	06.12.2023 & 21.12.2023
14	Report Issued Date	:	06.01.2024
15	Report Number	:	ULR-TC532323000001520F
	•		

#### **Stack Details**

Coal 70.0 3.00

1	Fuel Used	
2	Stack Height (mtr)	
3	Stack Diameter (mtr)	

#### **Emission Details**

				Res	sult	
SI.	Parameters	Parameters Method		1 <sup>st</sup> Fort Night	2 <sup>nd</sup> Fort Night	Permissible
No.	Date of Monitoring		Unit	05.12.2023	20.12.2023	Limit
	Sample Code			4135	4418	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	<sup>0</sup> C	29	28	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	<sup>0</sup> C	132	128	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	5.99	6.03	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m³/hr	152625	152625	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm <sup>3</sup> /hr	112213	113392	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm <sup>3</sup>	35.65	38.07	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm <sup>3</sup>	514.0	495.0	600
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm <sup>3</sup>	68.0	39.0	300
9	Carbon Monoxide	GEMS/SOP/69	%	0.054	0.074	NS

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

Analysed By Priyanka B M Chemist



Note

5. 6.

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. 1. 2. 3. 4.

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#### **ANNEXURE-29** GEMS-LD/TF/10/01

# **Analysis Report of Stack Emission**

1 2 3 4	Name of the Industry Customer Reference Sample collected by Particulars of sample collected	: : : : : : : : : : : : : : : : : : : :	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. WO/ADMIN/FY24/RO18 GLOBAL Environment & Mining Services Vayubodhan Stack sampler/ <b>VBSS2</b> Sl.No:Stack Monitoring Kit/ <b>032308</b>
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Sampling Location	:	2X70 MW CFBC Boiler ESP
10	Month of Sampling	:	DECEMBER-2023
11	Date of Sample Received	:	-
12	Date of Sample Analysis	:	-
13	Date Sample Analysis Completion	:	-
14	Report Issued Date	:	-
15	Report Number	:	

#### **Stack Details**

1	Fuel Used	
2	Stack Height (mtr)	
3	Stack Diameter (mtr)	

#### **Emission Details**

Coal 110.0 8.00

				Res	sult		
Sl. No.	Parameters	Method	Unit	1 <sup>st</sup> Fort Night	2 <sup>nd</sup> Fort Night	Permissible Limit	
NO.	Date of Monitoring			-	-		
	Sample Code			-	-		
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	٥C			-	
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	٥C			-	
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec			-	
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m³/hr			-	
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm <sup>3</sup> /hr	Shutdown	Shutdown	-	
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm <sup>3</sup>			50	
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm <sup>3</sup>			600	
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm <sup>3</sup>			300	
9	Carbon Monoxide	GEMS/SOP/69	%			NS	

Note: NS- Not Specified. RA: Reaffirmed

nn Authonised K. Ramakrishna Redd **Technical Manager** 

Note

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. 1. 2. 3. 4. 5. 6.

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#### **ANNEXURE-30** GEMS-LD/TF/10/01

# **Analysis Report of Stack Emission**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Vayubodhan Stack sampler / VBSS2
_			
5	Instrument Details	:	
6	Discipline	:	Chemical
7	1	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	DECEMBER-2023 (1 <sup>st</sup> Fort Night)
10	Date of Sample Received	:	12.12.2023
11	Date of Sample Analysis	:	13.12.2023
12	Date Sample Analysis Completion	:	13.12.2023
13	Report Issued Date	:	06.01.2024
14	Report Number	:	ULR-TC532323000001607F
8 9 10 11 12 13	Month of Sampling Date of Sample Received Date of Sample Analysis Date Sample Analysis Completion Report Issued Date		Atmospheric Pollution Stack Monitoring <b>DECEMBER-2023 (1<sup>st</sup> Fort Night)</b> 12.12.2023 13.12.2023 13.12.2023 <b>06.01.2024</b>

#### RESULTS

SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ºC	TS ºC	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>		
Chim	Chimneys attached to Bag Filter (De dusting Units)												
Bene	ficiation Plant-2												
1	Iron Ore Cone Crusher	-	-		-	-	-	30	1.20	-	50		
2	Iron Ore Screening	12.12.2023	4277		31	36	5.02	30	0.90	15.90	50		

SI. No	Beneficiation Plant	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
1	Iron Ore Cone Crusher	-	-	-
2	Iron Ore Screening	11178	10749	-

Parameter	Protocol
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

INFERENCE: The Measured Values are within the limits.



The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey

Note: 1. 2. 2. 3. 4. 5. 6



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#### **ANNEXURE-31** GEMS-LD/TF/10/01

# **Analysis Report of Stack Emission**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Vayubodhan Stack sampler/ VBSS2
			Sl.No:Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	DECEMBER-2023 (1 <sup>st</sup> Fort Night)
10	Date of Sample Received	:	
11	Date of Sample Analysis	:	-
12	Date Sample Analysis Completion	:	-
13	Report Issued Date	:	06.01.2024
14	Report Number	:	-

#### **RESULTS**

SI. No	St	ack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ⁰C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>	
		hed to Bag Filter (De du	sting Units)									0,	
Pelle	et Plant-II												
3	AGB mai	n bag Filter	-	-		-	-	-	6.5	0.5	-	50	
4	Lime & B top bag f	Sentonite Powder bin ilter	-	-		-	-	-	3	0.35	-	50	
5	AGB De c	lusting Bag Filter	-	-		-	-	-	6	0.6	-	50	
6	5 Powder Coal main bag filter		-	-		-	-	-	6	0.6	-	50	
7	RP-6 Cor	iveyor bag Filter	-	-		-	-	-	6	0.3	-	50	
8	Pellet dis	charge bin bag filter	-	-		-	-	-	20	0.5	-	50	
	SI. Pellet Plant				Gas flow rate at Stack Condition m³/hr				Gas flow rat Nm³/		KSPC Std		
	3	AGB main bag Filter			-				-		-		
	4	Lime & Bentonite Powde	er bin top bag filt	er					-		-		
	5	AGB De dusting Bag Filte	er			-			-		-		
	6	Powder Coal main bag fi	lter		-				-		-		
	7	RP-6 Conveyor bag Filte	r			-			-		-		
	8	Pellet discharge bin bag	filter			-			-		-		
			Parameter					Protoco	1		]		
			latter (mg/Nm3)					5 (reaffirme	d 2014)	ome	ne		
		Gas flow rate	at Stack Condition		IS-11255(Part 03) (RA 2014)								
		INFERENCI	and the second		15 11	200(1 410	200) (IA 2	2014)		ALL HOS	PETS		
									K. Rama	ised Signator akrishna Redd nical Manager	Realing		

Note:

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey 1. 2. 3. 4. 5. 6.



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#### **ANNEXURE-32** GEMS-LD/TF/10/01

### **Analysis Report of Stack Emission**

- 1 Name of the Industry
- 2 **Customer Reference**
- 3 Sample collected by
- 4 Particulars of sample collected
- 5 **Instrument Details**
- 6 Discipline
- 7 Group
- 8 Sample Type
- 9 Month of Sampling
- 10 Date of Sample Received
- 11 **Date of Sample Analysis**
- **Date Sample Analysis Completion** 12
- 13 **Report Issued Date**
- 14 **Report Number**

- BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. : WO/ADMIN/FY24/RO18
- **GLOBAL Environment & Mining Services** 5
- Vayubodhan Stack sampler/ VBSS2 5 Sl.No:Stack Monitoring Kit/032308
- Calibration Date: 28.03.2023
- Calibration Due Date: 27.03.2024 Chemical
- Atmospheric Pollution • ÷
- **Stack Monitoring** 1
  - DECEMBER-2023 (1st Fort Night)
  - 04.12.2023, 05.12.2023, 06.12.2023, 07.12.2023 & 08.12.2023
  - 05.12.2023, 06.12.2023, 07.12.2023, 08.12.2023 & 09.12.223
  - 05.12.2023, 06.12.2023, 07.12.2023, 08.12.2023 & 09.12.2023
- ŝ 06.01.2024

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:

#### ULR-TC5323230000001511F :

RESULTS

SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
and successive and successive and	neys attached to Bag Filter (De dustin	g Units)									
	00 TPD Sponge Iron Kiln 1 & 2	T		1							
9	Cooler Discharge -1	04.12.2023	4119		30	37	4.52	30	1.2	30.55	50
10	Cooler Discharge -2	04.12.2023	4120		30	36	4.84	30	1.2	29.45	50
11	Coal stock house	05.12.2023	4137		30	36	4.45	30	1.2	9.46	50
12	PSB 1 System-1	05.12.2023	4136		31	38	4.50	30	1.2	33.43	50
13	PSB 1 System-2	06.12.2023	4149		31	36	4.83	30	1.2	32.51	50
14	PSB 2 System-1 MCC	06.12.2023	4150		31	38	4.93	30	1.2	34.57	50
15	PSB 1 System-2 Road	07.12.2023	4185		30	38	5.14	30	1.2	35.08	50
16	Junction House Old & New	07.12.2023	4186		30	39	5.23	30	1.2	33.77	50
17	Storage Bunker	08.12.2023	4210		28	36	4.92	30	1.2	33.75	50
18	Dispatch	-	-		-	-	-	30	1.2	-	50
	SI. 2 X 500 TP		Gas flow rate at Stack				w rate at NT	P	KSPCB		

SI. No	2 X 500 TPD Sponge Iron Kiln 1 & 2	Gas flow rate at Stack Condition m <sup>3</sup> /hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
9	Cooler Discharge -1	17945	17203	-
10	Cooler Discharge -2	18597	17876	-
11	Coal stock house	19338	18603	-
12	PSB 1 System-1	18670	17836	
13	PSB 1 System-2	19623	18875	-
14	PSB 2 System-1 MCC	20115	19353	-
15	PSB 1 System-2 Road	20115	19353	-
16	Junction House Old & New	18772	17971	-
17	Storage Bunker	18161	17490	-
18	Dispatch	-	-	-

Parameter	Protocol	
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 201	4) anment
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	Jillo Ca
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	15/11-
INFERENCE: The Measured Values are within	the limits.	MULS SPET
Analysed By		Authorised Signatory
Priyanka B M		K. Ramakrishna Reddy

K. Ramakrishna Reddy

**Technical Manager** 

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.

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Chemist

Note

1.



SI.

Note

# **GLOBAL**ENVIRONMENT & MINING SERVICES

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#### **ANNEXURE-33** GEMS-LD/TF/10/01

# **Analysis Report of Stack Emission**

1	Name of the Industr	У	: BM	IM Ispat	Ltd., Da	anapur	, Hosaj	oete Talu	ık, Vijayana	gara Distri	ct.	
2	<b>Customer Reference</b>	<u>)</u>	: W0	O/ADMIN	V/FY24	/R018	3					
3	Sample collected by		: GL	OBAL En	vironn	ient &	Mining	Service:	S			
4	Particulars of sampl	e collected	: Va	Vayubodhan Stack sampler/ VBSS2								
			Sl.	Sl.No:Stack Monitoring Kit/ 032308								
5	Instrument Details		: Ca	Calibration Date: 28.03.2023								
			Ca	Calibration Due Date: 27.03.2024								
6	Discipline		: Ch	Chemical								
7	Group		: Atı	Atmospheric Pollution								
8	Sample Type		: Sta	Stack Monitoring								
9	Month of Sampling	nth of Sampling : DECEMBER-2023 (1st Fort Night)										
10	Date of Sample Rece	eived	: 08	.12.2023	& 09.12	2.2023						
11	Date of Sample Anal	ysis	: 09	.12.2023	& 11.12	2.2023						
12	Date Sample Analys	is Completion	: 09	12.2023	& 11.12	2.2023						
13	<b>Report Issued Date</b>		: 06	.01.2024	ŀ							
14	Report Number		: UL	R-TC532	23230	00001	568F					
				RESU	LTS							
	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ⁰C	TS °C	V m/s	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>	
nevs at	ttached to Bag Filter (De	dusting Units)										

No	Stack Attached to	Monitoring	Code	Used	°C	oC	m/s	(m)	(m)	mg/Nm <sup>3</sup>	mg/Nm <sup>3</sup>	
Chim	Chimneys attached to Bag Filter (De dusting Units)											
2X50	2X500 TPD Sponge Iron Kiln 3&4											
19	DE 3, Axis 3 CD	-	-		-	-	-	30	1.2	-	50	
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	08.12.2023	4212		29	37	5.15	30	1.2	35.33	50	
21	DE 8 & 12 I-Bin, (Stand By)	08.12.2023	4213		30	37	4.96	30	1.9	33.13	50	
22	DE 9 &10 PSB 1 & 2 Product Separation bin	08.12.2023	4214		29	38	5.37	30	1.9	36.23	50	
23	Coal Dryer	09.12.2023	4233		29	40	5.27	27	1.2	37.97	50	

SI. No	2X500 TPD Sponge Iron Kiln 3&4	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
19	DE 3, Axis 3 CD	-	-	-
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	19586	18771	-
21	DE 8 & 12 I-Bin, (Stand By)	51041	49267	-
22	DE 9 &10 PSB 1 & 2 Product Separation bin	50225	48290	-
23	Coal Dryer	20808	19856	-

**INFERENCE:** The Measured Values are within the limits.

Analysed By Priyanka B M Chemist

me/ Authorised Signator K. Ramakrishna Reddy Technical Manager

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.

1. 2. 3. 4. 5. 6. The result instear rears only to the tested samples & applicable parameters, Endorsement of products is neture inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



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#### **ANNEXURE-34** GEMS-LD/TF/10/01

# **Analysis Report of Stack Emission**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Vayubodhan Stack sampler / VBSS2
			Sl.No:Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	DECEMBER-2023 (2 <sup>nd</sup> Fort Night)
10	Date of Sample Received	:	28.12.2023
11	Date of Sample Analysis	:	29.12.2023
12	Date Sample Analysis Completion	:	29.12.2023
13	Report Issued Date	:	06.01.2024
14	Report Number	:	ULR-TC532323000001747F
			RESULTS

SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
Chir	Chimneys attached to Bag Filter (De dusting Units)										
Ben	eficiation Plant-2										
1	Iron Ore Cone Crusher	-	-		-	-	-	30	1.20	-	50
2	Iron Ore Screening	28.12.2023	4597		31	36	4.91	30	0.90	12.91	50

SI. No	Beneficiation Plant	Gas flow rate at Stack Condition m³/hr	Gas flow rate at NTP Nm³/hr	KSPCB Std
1	Iron Ore Cone Crusher	-	-	-
2	Iron Ore Screening	11178	10749	-

Parameter	Protocol
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

**INFERENCE:** The Measured Values are within the limits.

**Analysed By** Priyanka B M Chemist

Authorised Siguatory K. Ramakrishna Reddy Technical Manager

Note:

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. 3. 4. 5. 6.

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1. 2.



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



#### **ANNEXURE-35** GEMS-LD/TF/10/01

# **Analysis Report of Stack Emission**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/RO18
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Vayubodhan Stack sampler / VBSS2
			Sl.No:Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2023
			Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	DECEMBER-2023 (2 <sup>nd</sup> Fort Night)
10	Date of Sample Received	:	-
11	Date of Sample Analysis	:	-
12	Date Sample Analysis Completion	:	-
13	Report Issued Date	:	06.01.2024
14	Report Number	:	-

#### RESULTS

							UULLU						
SI. No		Stac	k Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ºC	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
Chin	Chimneys attached to Bag Filter (De dusting Units)												
Pelle	et Plar	ıt											1
3	AGB main bag Filter		-	-		-	-	-	6.5	0.5	-	50	
4			ntonite Powder g filter	-	-		-	-		3	0.35	-	50
5	AGE	B De du	isting Bag Filter	-	-		-	-	-	6	0.6	-	50
6	Pow	vder Co	oal main bagfilter	-	-		-	-	-	6	0.6	-	50
7	RP-6 Conveyor bag Filter		-	-		-	-	-	6	0.3	-	50	
8	Pell	et disc	harge bin bagfilter	-	-		-	-	-	20	0.5	-	50
		SI. No	Р	ellet Plant			s flow rat Condition		k	Gas flow rat Nm³/l		KSPCI Std	3
		3	AGB main bag Filter				-		-			-	
		4	Lime & Bentonite Po	wder bin top ba	g filter		-						
	<ul><li>5 AGB De dusting Bag Filter</li><li>6 Powder Coal main bagfilter</li></ul>				-			-		-			
					-			-		-			
		7	RP-6 Conveyor bag F	liter			-			-		-	
		8	Pellet discharge bi	n bagfilter			-			-			
				Danamata	*1				Droto	ol			

	Protocol	
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)	
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	001
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	onnow

Authorised Signator K. Ramakrishna Reday \* 58 Technical Manager

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey 1. 2. 3.

4. 5.

Note

6



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



**ANNEXURE-36** GEMS-LD/TF/10/01

#### **Analysis Report of Stack Emission**

- Name of the Industry 1
- 2 **Customer Reference**
- 3 Sample collected by
- Particulars of sample collected 4
- Instrument Details 5
- 6 Discipline
- 7 Group
- 8 Sample Type
- 9 Month of Sampling
- Date of Sample Received 10
- Date of Sample Analysis 11
- Date Sample Analysis Completion 12
- 13 **Report Issued Date**
- 14 **Report Number**

- BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. :
- WO/ADMIN/FY24/RO18
- **GLOBAL Environment & Mining Services** .
- Vayubodhan Stack sampler / VBSS2 Sl.No:Stack Monitoring Kit/032308
- Calibration Date: 28.03.2023
- Calibration Due Date: 27.03.2024 Chemical

1

:

- **Atmospheric Pollution** Stack Monitoring :
- DECEMBER-2023 (2ndFort Night) \$
  - 19.12.2023,20.12.2023, 21.12.2023, 22.12.2023 & 26.12.2023
  - 20.12.2023,21.12.2023, 22.12.2023, 23.11.2023 & 27.12.2023
  - 20.12.2023,21.12.2023, 22.12.2023, 23.11.2023 & 27.12.2023
- : 06.01.2024
  - ULR-TC532323000001675F

#### RESULTS

SI. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta ⁰C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
Chim	Chimneys attached to Bag Filter (De dusting Units)										
2 X 5	00 TPD Sponge Iron Kiln 1 & 2										
9	Cooler Discharge -1	26.12.2023	4546		29	36	4.63	30	1.2	30.18	50
10	Cooler Discharge -2	19.12.2023	4402		31	36	4.90	30	1.2	30.25	50
11	Coal stock house	19.12.2023	44.03		30	35	4.28	30	1.2	10.49	50
12	PSB 1 System-1	20.12.2023	4419		30	36	4.69	30	1.2	34.14	50
13	PSB 1 System-2	20.12.2023	4420		30	37	4.92	30	1.2	35.63	50
14	PSB 2 System-1 MCC	21.12.2023	4442		30	37	4.75	30	1.2	37.26	50
15	PSB 1 System-2 Road	21.12.2023	4443		31	38	5.19	30	1.2	36.76	50
16	Junction House Old & New	22.12.2023	4471		30	38	5.26	30	1.2	40.54	50
17	Storage Bunker	22.12.2023	4472		28	36	4.85	30	1.2	38.82	50
18	Dispatch	-	-		-	-	-	30	1.2	-	50

Gas flow rate at Stack Gas flow rate at NTP KSPCB SI. 2 X 500 TPD Sponge Iron No Condition m<sup>3</sup>/hr Nm<sup>3</sup>/hr Std Kiln 1 & 2 9 17298 Cooler Discharge -1 17945 -10 Cooler Discharge -2 18597 17885 -Coal stock house 19338 18649 11 PSB 1 System-1 18670 17956 12 PSB 1 System-2 18799 13 19623 PSB 2 System-1 MCC 20400 19702 14 15 PSB 1 System-2 Road 20115 19353 Junction House Old & New 18772 17971 16 17 Storage Bunker 18161 17490 18 Dispatch Parameter Protocol Particulate Matter (mg/Nm3) IS: 11255 (Part 1) - 1985 (reaffirmed 2014) Gas flow rate at Stack Condition IS-11255(Part 03) (RA 2014) IS-11255(Part 03) (RA 2014) ent& Gas flow rate at NTP **INFERENCE:** The Measured Values are within the limits. HOSPE



Authorised Signatory

K. Ramakrishna Reddy 🔺

Technical Manager

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Note

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. 3.

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GEMS GEMS GEMS NABET GEMS GEMS GEMS GEMS GEMS GEMS GEMS GEMS					gners, ( adava) ijayan .com	Geologist ne,	t & Su	rveyors)		TC-53 ANNEXU	IRE-37
		Aı	nalysis Re	eport	of Sta	ack En	niss	ion			10/01
1 2 3 4 5 6 7 8 9 10	Name of the Indust Customer Reference Sample collected by Particulars of samp Instrument Details Discipline Group Sample Type Month of Sampling Date of Sample Rec	e y ole collected	: WO/ : GLOI : Vayu Sl.No : Calib : Calib : Chen : Atmo : Stach : DECI	ADMIN BAL En ubodhan o:Stack bration bration mical ospheri k Monit <b>EMBER</b>	N/FY24 wironn n Staci Monit Date: Due D ic Pollu toring <b>R-2023</b>	4/RO18 nent & k sampl oring K 28.03.2 28.03.2 ate: 27. ution	3 Mini ler/ V (it/ <b>0</b> .023 .03.2	ng Service V <b>BSS2</b> 32308 024 ( <b>ight)</b>		agara Distri	ct.
11 12 13 14	Date of Sample Ana Date Sample Analy Report Issued Date Report Number	llysis sis Completio	: 26.12 n : 26.12 : <b>06.0</b>	2.2023,: 2.2023,: 2.2023,: 01.2024 -TC532 <u>RESUI</u>	27.12. 27.12. <b>4</b> 23230	2023 & 2023 &	30.11 30.11	2.2023			
12 13 14 SI. NO	Date Sample Analy Report Issued Date Report Number Stack Attached to	llysis sis Completion Date of Monitoring	: 26.12 n : 26.12 : 06.0 : ULR Sample Code	2.2023,; 2.2023,; <b>)1.2024</b> - <b>TC532</b>	27.12. 27.12. <b>4</b> 23230	2023 & 2023 &	30.11 30.11	2.2023 2.2023 7 Height	Diameter (m)	PM mg/Nm <sup>3</sup>	KSPCB Std mg/Nm <sup>3</sup>
12 13 14 SI. NO Chimneys a	Date Sample Analy Report Issued Date Report Number Stack Attached to attached to Bag Filter (E	llysis sis Completion Date of Monitoring re dusting Units)	: 26.12 n : 26.12 : 06.0 : ULR Sample Code	2.2023,; 2.2023,; <b>1.2024</b> <b>-TC532</b> <u>RESUI</u> Fuel	27.12. 27.12. 4 23230 LTS Ta	2023 & 2023 & 00001 TS	30.13 30.13 <b>7201</b>	2.2023 2.2023 7 Height			Std
12 13 14 SI. NO Chimneys a 2X500 TPI 19 DE 3,	Date Sample Analy Report Issued Date Report Number Stack Attached to attached to Bag Filter (D D Sponge Iron Kiln 3& Axis 3 CD	llysis sis Completion Date of Monitoring re dusting Units)	: 26.12 n : 26.12 : 06.0 : ULR Sample Code	2.2023,; 2.2023,; <b>1.2024</b> <b>-TC532</b> <u>RESUI</u> Fuel	27.12. 27.12. 4 23230 LTS Ta	2023 & 2023 & 00001 TS	30.13 30.13 <b>7201</b>	2.2023 2.2023 7 s Height (m)			Std
12 13 14 SI. NO Chimneys a 2X500 TPI 19 DE 3, 20 DE 4, 20 DE 4,	Date Sample Analy Report Issued Date Report Number Stack Attached to attached to Bag Filter (D D Sponge Iron Kiln 3& Axis 3 CD DE 7, DE 7A Axis 4 CD	Uysis sis Completion Date of Monitoring te dusting Units)	: 26.12 n : 26.12 : 06.0 : ULR- Sample Code	2.2023,; 2.2023,; <b>)1.2024</b> - <b>TC532</b> <u>RESUI</u> Fuel Used	27.12. 27.12. <b>4</b> 23230 <u>LTS</u> Ta °C	2023 & 2023 & 00001 TS °C	30.12 30.12 7201	2.2023 2.2023 5 Height (m) 2 30	(m)	mg/Nm <sup>3</sup>	Std mg/Nm
12         13           14         14           SI.           NO           Chimeys a           2X500 TPI           19         DE 3,           20         DE 4,           Juncti         Juncti	Date Sample Analy Report Issued Date Report Number Stack Attached to attached to Bag Filter (E D Sponge Iron Kiln 3& Axis 3 CD DE 7, DE 7A Axis 4 CD ion House(Stand By)	lysis sis Completion Date of Monitoring te dusting Units) 4 29.12.2023 25.12.2023	: 26.12 n : 26.12 : 06.0 : ULR- Sample Code ) 4603 4526	2.2023,; 2.2023,; <b>01.2024</b> <b>-TC532</b> <b>RESUI</b> Fuel Used	27.12. 27.12. 4 23230 LTS Ta °C 29 28	2023 & 2023 & 00001 TS °C 36 36	30.1 30.1 720H V m/ 4.8 5.0	2.2023 2.2023 7 <b>Height</b> (m) 2 30 9 30	(m) 1.20	mg/Nm <sup>3</sup> 32.13 34.30	Std mg/Nm 50
12         13           13         14           SI.         NO           Chimneys a         2           2X500 TPI         19           19         DE 3,           20         DE 4,           Juncti         21           21         DE 8 8           22         DE 9 8           Separ         Separ	Date Sample Analy Report Issued Date Report Number Stack Attached to attached to Bag Filter (D D Sponge Iron Kiln 3& Axis 3 CD DE 7, DE 7A Axis 4 CD ion House(Stand By) & 12 I-Bin, (Stand By) &10 PSB 1 & 2 Product ration bin	Date of Monitoring e dusting Units) 29.12.2023 25.12.2023 25.12.2023 25.12.2023	: 26.12 n : 26.12 : 06.0 : ULR- Sample Code 4603 4526 4527 4528	2.2023,; 2.2023,; <b>01.2024</b> <b>-TC532</b> <b>RESUI</b> Fuel Used	27.12. 27.12. 4 23230 LTS Ta °C 29 28 29 30	2023 & 2023 & 00001 TS °C 36 36 37 37	30.1 30.1 7201 V m/ 4.8 5.0 4.9 5.3	2.2023 2.2023 7 8 Height (m) 2 30 9 30 2 30 9 30	(m) 1.20 1.20 1.30 1.4	mg/Nm <sup>3</sup> 32.13 34.30 35.75 37.30	Std mg/Nm 50 50 50 50
12         13           14         14           SI.           NO           Chimneys a           2X500 TPI           19         DE 3,           20         DE 4,           Juncti         21           21         DE 8 4           22         DE 9 4	Date Sample Analy Report Issued Date Report Number Stack Attached to attached to Bag Filter (D D Sponge Iron Kiln 3& Axis 3 CD DE 7, DE 7A Axis 4 CD ion House(Stand By) & 12 I-Bin, (Stand By) &10 PSB 1 & 2 Product ration bin	Date of Monitoring e dusting Units) 29.12.2023 25.12.2023	: 26.12 n : 26.12 : 06.0 : ULR Sample Code ) 4603 4526 4527	2.2023,7 2.2023,7 <b>01.2024</b> <b>-TC532</b> <b>RESUI</b> Fuel Used	27.12. 27.12. 4 23230 LTS Ta °C 29 28 29 28 29 30 29	2023 & 2023 & 00001 TS °C 36 36 36 37 37 39	30.1 30.1 7201 V m/ 4.8 5.0 4.9	2.2023 2.2023 7 8 Height (m) 2 30 9 30 2 30 9 30	(m) 1.20 1.20 1.30	mg/Nm <sup>3</sup> 32.13 34.30 35.75	Std mg/Nm 50 50 50
12         13           13         14           SI.         NO           Chimneys a         2           2X500 TPI         19           19         DE 3,           20         DE 4,           Juncti         21           21         DE 8 8           22         DE 9 8           Separ         Separ	Date Sample Analy Report Issued Date Report Number Stack Attached to attached to Bag Filter (E D Sponge Iron Kiln 3& Axis 3 CD DE 7, DE 7A Axis 4 CD ion House(Stand By) & 12 I-Bin, (Stand By) & 12 I-Bin, (Stand By) & 10 PSB 1 & 2 Product ration bin Dryer SI. 2X5	Date of Monitoring e dusting Units) 29.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 00 TPD Sponge Irc	: 26.12 : 26.12 : 06.0 : ULR- Sample Code 4603 4526 4527 4528 4545	2.2023,; 2.2023,; 01.2024 3-TC532 RESUI Fuel Used   	27.12. 27.12. 4 23230 LTS Ta °C 29 28 29 28 29 30 29 30 29 30 29 Gas flo Stack ( m	2023 & 2023 & 00001 TS °C 36 36 37 37 39 wrate at condition 3/hr	30.1 30.1 7201 V m/ 4.8 5.0 4.9 5.3	2.2023 2.2023 7 8 Height (m) 2 30 9 30 2 30 9 30 2 30 9 30 3 35 6as flow rate Nm <sup>3</sup> /h	(m) 1.20 1.20 1.30 1.4 1.90 at NTP r	mg/Nm <sup>3</sup> 32.13 34.30 35.75 37.30 36.17 KSPCB Std	Std mg/Nm 50 50 50 50 50
12         13           14         14           Si.           NO           Chimneys a           2X500 TPI           19         DE 3,           20         DE 4,           Juncti         21           21         DE 8 8           22         DE 9 8           Separ	Date Sample Analy Report Issued Date Report Issued Date Report Number Stack Attached to attached to Bag Filter (E D Sponge Iron Kiln 3& Axis 3 CD DE 7, DE 7A Axis 4 CD ion House(Stand By) & 12 I-Bin, (Stand By) & 12 I-Bin, (Stand By) & 12 I-Bin, (Stand By) & 12 I-Bin, (Stand By) & 10 PSB 1 & 2 Product ration bin Dryer SI. No 20 DE 4, DE 7,	Date of Monitoring e dusting Units) 29.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023	: 26.12 n : 26.12 : 06.0 : ULR- Sample Code 4603 4526 4527 4528 4545 on Kiln 3&4	2.2023,; 2.2023,; 01.2024 3-TC532 RESUI Fuel Used   	27.12. 27.12. 4 23230 LTS Ta °C 29 28 29 28 29 30 29 30 29 30 29 30 5tack C m 18	2023 & 2023 & 00001 TS °C 36 36 36 37 37 39 wrate at condition 3/hr :079	30.1 30.1 7201 V m/ 4.8 5.0 4.9 5.3	2.2023 2.2023 7 8 Height (m) 2 30 9 30 2 30 9 30 2 30 9 30 3 35 6as flow rate Nm³/h 17390	(m) 1.20 1.20 1.30 1.4 1.90 e at NTP r	mg/Nm <sup>3</sup> 32.13 34.30 35.75 37.30 36.17 KSPCB	Std mg/Nm 50 50 50 50
12         13           14         14           Si.           NO           Chimneys a           2X500 TPI           19         DE 3,           20         DE 4,           Juncti         21           21         DE 8 8           22         DE 9 8           Separ	Date Sample Analy Report Issued Date Report Number Stack Attached to attached to Bag Filter (E D Sponge Iron Kiln 3& Axis 3 CD DE 7, DE 7A Axis 4 CD ion House(Stand By) & 12 I-Bin, (Stand By) & 12 I-Bin, (Stand By) & 10 PSB 1 & 2 Product ration bin Dryer SI. 2X5 19 DE 3, Axis 3 20 DE 4, DE 7, House(Stard	Date of Monitoring e dusting Units) 29.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 26.12.2023 26.12.2023 26.12.2023 26.12.2023 26.12.2023 26.12.2023	: 26.12 n : 26.12 : 06.0 : ULR- Sample Code 4603 4526 4527 4528 4545 on Kiln 3&4	2.2023,; 2.2023,; 01.2024 3-TC532 RESUI Fuel Used   	27.12. 27.12. 4 23230 LTS Ta °C 29 28 29 30 29 30 29 Gas flo Stack C m 18 19	2023 & 2023 & 2023 & 00001 TS °C 36 36 37 37 39 w rate at condition 3/hr 6079 586	30.1 30.1 7201 V m/ 4.8 5.0 4.9 5.3	2.2023 2.2023 7 8 Height (m) 2 30 9 30 2 30 9 30 2 30 9 30 3 35 6as flow rate Nm <sup>3</sup> /h 17390 18771	(m) 1.20 1.20 1.30 1.4 1.90 at NTP r	mg/Nm <sup>3</sup> 32.13 34.30 35.75 37.30 36.17 KSPCB Std - - -	Std mg/Nm 50 50 50 50
12         13           14         14           Si.           NO           Chimneys a           2X500 TPI           19         DE 3,           20         DE 4,           Juncti         21           21         DE 8 8           22         DE 9 8           Separ	Date Sample Analy Report Issued Date Report Issued Date Report Number Stack Attached to attached to Bag Filter (E D Sponge Iron Kiln 3& Axis 3 CD DE 7, DE 7A Axis 4 CD ion House(Stand By) & 12 I-Bin, (Stand By) & 12 I-Bin, (Stand By) & 12 I-Bin, (Stand By) & 10 PSB 1 & 2 Product ration bin Dryer SI. No 2X5 19 DE 3, Axis 3 20 DE 4, DE 7, House(Stan 21 DE 8 & 12 D	Date of Monitoring e dusting Units) 29.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023 25.12.2023	: 26.12 : 06.0 : ULR- Sample Code 4603 4526 4527 4528 4545 on Kiln 3&4 Junction	2.2023,7 2.2023,7 91.2024 3-TC532 RESUI Fuel Used	27.12. 27.12. 4 23230 LTS Ta °C 29 28 29 30 29 30 29 30 29 30 29 30 29 51ack ( m 18 19 51	2023 & 2023 & 00001 TS °C 36 36 36 37 37 39 wrate at condition 3/hr :079	30.1 30.1 7201 V m/ 4.8 5.0 4.9 5.3	2.2023 2.2023 7 8 Height (m) 2 30 9 30 2 30 9 30 2 30 9 30 3 35 6as flow rate Nm³/h 17390	(m) 1.20 1.20 1.30 1.4 1.90 at NTP r	mg/Nm <sup>3</sup> 32.13 34.30 35.75 37.30 36.17 KSPCB Std	Std mg/Nm 50 50 50 50

Parameter	Protocol
Particulate Matter (mg/Nm3)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

**INFERENCE:** The Measured Values are within the limits.

Analysed By Priyanka B M Chemist

ent& HOSPE Authorised Signatory K. Ramakrishna Reddy 58 Technical Manager

Note:

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey 1. 2. 3. 4. 5. 6.

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None of the owner of the owner



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



#### **ANNEXURE-38** GEMS-LD/TF/08/01

### **AMBIENT NOISE LEVEL MONITORING REPORT**

Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference	:	WO/ADMIN/FY24/RO18
Sample collected by	:	Global Environment & Mining Services
Discipline	:	Chemical
Group	:	Atmospheric Pollution
Sample Type	:	Noise Level Monitoring
Particulars of Sample Collected	:	Lutron: SL- 4023SD
		Sl. No: Q679952
Instrument Details	:	Calibration Date: 02.11.2023
		Due Calibration: 01.11.2024
Month	:	DECEMBER - 2023
Report Issue Date	:	06.01.2024
Method Adopted	:	IS 9989-1981 Reaffirmed 2014
Report No	:	ULR-TC532323000001485F

			Noise Level dB (A)						
SI.	Location	Date of	Day	Day Time		Night Time		Standard	
No		Monitoring	Min	Max	Standard	Min	Max	Stanuaru	
1	Main Gate	01.12.2023	48.2	56.8	75	43.4	58.7	70	
2	Near ATM	01.12.2023	49.0	54.9	75	45.1	60.4	70	
3	Transit House	02.12.2023	53.4	61.2	75	41.6	58.4	70	
4	CAAQMS Station	02.12.2023	46.8	55.6	75	40.2	50.2	70	
5	Gunda Road	04.12.2023	48.2	56.8	75	41.7	52.4	70	
6	Gunda Railway Station	04.12.2023	58.2	63.5	75	47.2	59.1	70	
7	Bagging Shed	05.12.2023	51.8	56.8	75	51.3	60.2	70	
8	Railway Siding	05.12.2023	58.0	68.2	75	57.5	63.0	70	
9	4th Gate	06.12.2023	49.6	55.9	75	45.1	57.3	70	
10	Bricks Plant	06.12.2023	57.4	68.2	75	45.8	55.7	70	
11	Kempuhalla (Wagon Tippler)	07.12.2023	48.2	51.5	75	43.6	54.8	70	
12	Danapura Bridge	07.12.2023	55.0	59.2	75	48.4	56.1	70	
13	2nd Gate	08.12.2023	47.2	49.8	75	41.7	55.3	70	
14	Project Store	08.12.2023	44.7	52.3	75	40.6	51.1	70	
15	Dispatch (Truck Parking Area)	09.12.2023	58.1	70.4	75	54.1	60.5	70	

As per CPCB Standards, **INFERENCE** 

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



Note The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.

The result listed reters only to the tested samples & applicable parameters, Endorsement of products is include interfed for implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory

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# **GLOBALENVIRONMENT & MINING SERVICES**

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



**ANNEXURE-39** 

		GEMS-LD/TF/08/01
AMBIENT	NO	ISE LEVEL MONITORING REPORT
Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference	:	WO/ADMIN/FY24/R018
Sample collected by	:	Global Environment & Mining Services
Discipline	:	Chemical
Group	:	Atmospheric Pollution
Sample Type	:	Noise Level Monitoring
Particulars of Sample Collected	:	Lutron: SL- 4023SD
		Sl. No: Q679952
Instrument Details	:	Calibration Date: 02.11.2023
		Due Calibration: 01.11.2024
Month	:	DECEMBER - 2023
Report Issue Date	:	06.01.2024
Method Adopted	:	IS 9989-1981 Reaffirmed 2014
Report No	:	ULR-TC532323000001666F

01		D	Noise Level dB (A)						
SI. No	Location	Date of Monitoring	Day	Day Time		Night Time		Chan dand	
NU		Monitoring	Min	Max	Standard	Min	Max	Standard	
1	Main Gate	16.12.2023	47.2	58.8	75	42.4	55.8	70	
2	Near ATM	16.12.2023	51.4	55.4	75	41.1	51.4	70	
3	Transit House	18.12.2023	42.9	49.8	75	40.6	47.6	70	
4	CAAQMS Station	18.12.2023	40.7	48.2	75	39.4	46.2	70	
5	Gunda Road	19.12.2023	43.8	53.7	75	41.8	52.8	70	
6	Gunda Railway Station	19.12.2023	49.5	68.2	75	47.1	61.4	70	
7	Bagging Shed	20.12.2023	52.8	59.5	75	50.9	58.2	70	
8	Railway Siding	20.12.2023	60.4	71.5	75	52.4	63.4	70	
9	4th Gate	21.12.2023	46.5	59.4	75	51.6	58.9	70	
10	Bricks Plant	21.12.2023	46.9	56.8	75	40.4	49.6	70	
11	Kempuhalla (Wagon Tippler)	22.12.2023	45.6	56.2	75	49.1	55.4	70	
12	Danapura Bridge	22.12.2023	53.2	60.0	75	54.6	63.2	70	
13	2nd Gate	23.12.2023	42.1	53.8	75	40.8	51.1	70	
14	Project Store	23.12.2023	42.5	49.8	75	39.2	46.4	70	
15	Dispatch (Truck Parking Area)	24.12.2023	56.8	65.2	75	52.1	61.1	70	

#### As per CPCB Standards, **INFERENCE**

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

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

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.

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  - Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey

Note:

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#### **ANNEXURE-40** GEMS-LD/TF/08/01

# **AMBIENT NOISE LEVEL MONITORING REPORT**

Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference	:	WO/ADMIN/FY24/R018
Sample collected by	:	Global Environment & Mining Services
Discipline	:	Chemical
Group	:	Atmospheric Pollution
Sample Type	:	Noise Level Monitoring
Particulars of Sample Collected	:	Lutron: SL- 4023SD
		Sl. No: Q679953
Instrument Details	:	Calibration Date: 02.11.2023
		Due Calibration: 01.11.2024
Month	:	DECEMBER - 2023
Report Issue Date	:	06.01.2024
Method Adopted	:	IS 9989-1981 Reaffirmed 2014
Report No	:	ULR-TC532323000001530F

CI		Data	Noise Level dB (A)								
Sl. No	Location	Date of	Day Time			Night Time					
INO		Monitoring	Min	Max	Avg	Standard	Min	Max	Avg	Standard	
1	Danapur Village	03.12.2023	47.9	53.2	52.86		37.9	44.1	42.07		
2	Mariyammana Halli	03.12.2023	48.2	54.4	53.01		39.6	42.5	40.18		
3	Hanumana Halli	04.12.2023	48.6	53.1	52.84	r r	36.1	44.7	42.06	15	
4	Galemmanagudi	03.12.2023	46.1	54.8	52.97	55	38.4	42.5	39.93	45	
5	G.Nagalapura Village	04.12.2023	42.8	53.4	51.02		40.2	43.6	38.62		
6	Gunda Tanda Village	04.12.2023	42.1	53.6	51.44		39.5	41.9	37.59		

Note: Each Location above the Noise Level taken Readings 15 Minutes.

**INFERENCE** 

As per CPCB Standards, Report Status: - Measured Values for the above parameters are within the limit.

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

#### NOISE: (AMBIENT STANDARDS)

Area code	Category of Area	Limit in dB(A) Leq			
Aiea coue	Category of Area	Day Time	Night Time		
А	Industrial Area	75	70		
В	Commercial Area	65	55		
С	Residential Area	55	45		
D	Silence Area	50	40		

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2. 3. 4. 5. 6.



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#### **ANNEXURE-41** GEMS-LD/TF/23/01

# **Analysis Report of Water Quality Data**

- 1 Name of the Industry 2
- : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. WO/ADMIN/FY24/R018 :

Pollution & Environment

: Grab Sampling

Chemical

13.12.2023

13.12.2023

: GEMS-LD/SOP/32

Ground Water

- **Customer Reference** 3 Sample collected by
  - : **GLOBAL Environment & Mining Services**

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: 4292

- 4 Particulars of sample collected
- 5 Sampling Procedure
- 6 Discipline
- 7 Group
- 8 Sample Type
- 9 Sample Code
- 10 Date of Sampling
- 11 Sample Received
- 12 Date of Analysis
- 13 Date of Analysis Completion
- 14 **Report Issue Date**
- 15 **Report Number**
- : 19.12.2023

: 13.12.2023

06.01.2024 :

#### ULR-TC532323000001618F :

# **Results**

SI.	Parameters	Protocol	Unit	Danapur Village	Standards as per IS: 10500:2012		
No.			Ome	(GW1)	Desirable Limits	Permissible Limits	
1.	рН	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.20	6.5 to 8.5	NR	
2.	Conductivity	APHA 23 <sup>rd</sup> Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	2700	-	-	
3.	Total Dissolved Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1674	500	2000	
4.	Turbidity (NTU)	APHA 23 <sup>rd</sup> Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.4	1	5	
5.	Total Suspended Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-	
6.	Sulphate as SO4	APHA 23 <sup>rd</sup> Edition 2017 4500 -SO <sub>4</sub> <sup>2-</sup> E (Page No. 4-199 to 4-200)	mg/L	222.6	200	400	
7.	Phosphorusas P	APHA 23 <sup>rd</sup> Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil		-	
8.	Sodium as Na	APHA 23 <sup>rd</sup> Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	308.3	-	-	
9.	Potassium as K	APHA 23 <sup>rd</sup> Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-	
10.	Calcium as Ca	APHA 23 <sup>rd</sup> Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	158.72	75	200	
11.	Magnesium as Mg	APHA 23 <sup>rd</sup> Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	34.80	30	100	
12.	Total Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	540.0	200	600	
13.	Chloride as Cl	APHA 23 <sup>rd</sup> Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	489.80	250	1000	
14.	Fluoride as F	APHA 23 <sup>rd</sup> Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.48	1	1.5	
15.	Nitrate Nitrogen as NO3	APHA 23 <sup>rd</sup> Edition 2017 4500 NO <sub>3</sub> E (Pg. No.4-131 to 4-132)	mg/L	20.36	45	NR	

Note 1.

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# **GLOBAL**ENVIRONMENT & <u>MINING SERVICES</u>

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Ph :08394 355369

: gems\_hpt@yahoo.com e-mail

Website : www.globalmining.in



16.	Total Alkalinity as CaCO3	APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	582.0	200	600			
	A								
17.	Acidity as CaCO <sub>3</sub>	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil		-			
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.14	0.30	NR			
19.	Nickel as Ni	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR			
20.	Manganese as Mn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30			
21.	Copper as Cu	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.308	0.05	1.50			
22.	Zinc as Zn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.243	5	15			
23.	Lead as Pb	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR			
24.	Arsenic as As	APHA 23 <sup>rd</sup> Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05			
25.	Chromium as Cr	APHA 23rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72)	mg/L	<0.05	0.05	NR			

Note: GW1: Danapur Village. NR-No relaxation.

As per Standards IS: 10500:2012 **INFERENCE** Report Status: - Measured Values for the above parameters are within the limits.

**Analysed By** 

Priyanka B M

Chemist

Authorised Signato K. Ramakrishna Redd **Technical Manager** 

Note 1.

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#### ANNEXURE-41 GEMS-LD/TF/23/01

# **Analysis Report of Water Quality Data**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Grab Sampling
5	Sampling Procedure	:	GEMS-LD/SOP/32
6	Discipline	:	Chemical
7	Group	:	Pollution & Environment
8	Sample Type	:	Ground Water
9	Sample Code	:	4292
10	Date of Sampling	:	13.12.2023
11	Sample Received	:	13.12.2023
12	Date of Analysis	:	13.12.2023
13	Date of Analysis Completion	:	19.12.2023
14	Report Issue Date	:	06.01.2024
			<u>Results</u>

SI.	Parameters	Protocol	Unit	Danapur	Standards as per IS: 10500:2012	
No		11000001	Omt	Village (GW1)	Desirable Limits	Permissible Limits
1.	Color	APHA-23RD Edition-2120 C (Pg No. 2 -7 to 2-8)	Hazen	<5	5	15
2.	Cadmium as Cd	APHA-23RD Edition-3111 –B (Pg No.3 -20 to 3-21)	mg/L	<0.001	0.003	NR
3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-

Note: Ab: Absent, NR: No Relaxation

**Analysed By** Priyanka B M Chemist

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

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#### **ANNEXURE-42** GEMS-LD/TF/23/01

# Analysis Report of Water Quality Data : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.

- 1 Name of the Industry 2 **Customer Reference**
- 3 Sample collected by
- WO/ADMIN/FY24/R018 **GLOBAL Environment & Mining Services** : Grab Sampling

GEMS-LD/SOP/32

Pollution & Environment

- Particulars of sample collected
- 5 Sampling Procedure 6
  - Discipline
- 7 Group

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- 8 Sample Type
- 9 Sample Code
- 10 Date of Sampling
- 11 Sample Received
- 12 Date of Analysis
- 13 Date of Analysis Completion 14 **Report Issue Date** 
  - 19.12.2023 :

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- 15 **Report Number**
- 06.01.2024

Chemical

4294

Ground Water

13.12.2023

13.12.2023

13.12.2023

: ULR-TC532323000001620F

#### **Results**

		ALCOU	A CO			
SI. No	Parameters	Protocol	Unit	Hanumanahalli Village (GW2)	Standards as per IS: 10500:2012 Desirable Permissib	
1.	-11	APHA 23rd Edition 2017 4500 H+			Limits	Limits
1.	рН	B (Pg. No.4-95 to 4-99)	-	7.36	6.5 to 8.5	NR
2.	Conductivity	APHA 23 <sup>rd</sup> Edition 2017 2510 A			0.0 00 0.0	INK
	conductivity	(Pg. No.2-56 to 2-58)	μS/cm	3000	-	_
3.	Total Dissolved Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 C				
		(Pg. No.2-69 to 2-70)	mg/L	1860	500	2000
4.	Turbidity (NTU)	APHA 23 <sup>rd</sup> Edition 2017 2130 B	NUMP I			
		(Pg. No.2-13 to 2-15)	NTU	0.5	1	5
5.	Total Suspended Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 D	mall	4.0		
		(Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO <sub>4</sub>	APHA 23 <sup>rd</sup> Edition 2017 4500	mg/L	185.50	200	
		-SO <sub>4</sub> <sup>2-</sup> E (Page No. 4-199 to 4-200)	IIIg/ L	105.50	200	400
7.	Phosphorusas P	APHA 23 <sup>rd</sup> Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil		
8.	C. It at	APHA 23 <sup>rd</sup> Edition 2017 Na 3500 B		1411	-	-
8.	Sodium as Na	(Pg. No.3-99 to 3-100)	mg/L	512.8		
9.	Potassium as K	APHA 23 <sup>rd</sup> Edition 2017 K 3500 B				-
<i>.</i>	i otassium as K	(Pg. No.3-89 to 3-90)	mg/L	0.0		
10.	Calcium as Ca	APHA 23 <sup>rd</sup> Edition 2017 3500 Ca B				
101	calcium as ca	(Pg. No.3-69 to 3-70)	mg/L	134.64	75	200
11.	Magnesium as Mg	APHA 23 <sup>rd</sup> Edition 2017 3500-B Mg				
	g	By calculation (Pg. No.3-86)	mg/L	64.61	30	100
12.	Total Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2017 2340 C	17			
13.	Chloride as Cl	(Page No. 2-48 to 2-50)	mg/L	595.9	200	600
13.	Chloride as Cl	APHA 23 <sup>rd</sup> Edition 2017 4500 Cl-	mg/L	499.8	250	1000
14.	Fluoride as F	APHA 23rdEdition 2017 4500 F- D				1000
		(Page No. 4-90 to 4-91)	mg/L	0.82	1	1.5
15.	Nitrate Nitrogen as NO3	APHA 23 <sup>rd</sup> Edition 2017 4500 NO <sub>3</sub> E	mg/L	15 10		
		(Pg. No.4-131 to 4-132)	mg/L	15.12	45	NR
16.	Total Alkalinity as CaCO3	APHA 22nd Edition 2017 2320 B	mg/L	593.6	200	
		(Pg. No.2-37 to 2-39)	0/	575.0	200	600

Note 1

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The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writin Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey 4 5.

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(Consulting Engineers, Mine designers, Geologist & Surveyors) 3<sup>rd</sup> Main Road, Basaveswara Badavane, HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph :08394 355369

: gems\_hpt@yahoo.com e-mail

Website : www.globalmining.in



					AN	<b>INEXURE-42</b>
17.	Acidity as CaCO <sub>3</sub>	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.12	0.30	NR
19.	Nickel as Ni	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.218	0.05	1.50
22.	Zinc as Zn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.118	5	15
23.	Lead as Pb	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 <sup>rd</sup> Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72)	mg/L	<0.05	0.05	NR

Note: GW2: Hanumanahalli Village. NR-No relaxation.

As per Standards IS: 10500:2012 **INFERENCE** Report Status: - Measured Values for the above parameters are within the limit.

**Analysed By** Priyanka B M Chemist

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

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1. 2. 3. 4. 5. 6. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey

Note



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

#### **ANNEXURE-42** GEMS-LD/TF/23/01

# Analysis Report of Water Quality Data

1	Name of the Industry		PMM Ispect I to I D
2	Customer Reference		BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
3	Sample collected by	:	WO/ADMIN/FY24/R018
4	5	:	GLOBAL Environment & Mining Services
	Particulars of sample collected	:	Grab Sampling
5	Sampling Procedure	:	GEMS-LD/SOP/32
6	Discipline	:	Chemical
7	Group	:	Pollution & Environment
8	Sample Type	:	Ground Water
9	Sample Code	:	
10	Date of Sampling	•	4294
		:	13.12.2023
11	Sample Received	:	13.12.2023
12	Date of Analysis	:	13.12.2023
13	Date of Analysis Completion		19.12.2023
14	Report Issue Date		
- 1	report issue Date		06.01.2024

**Results** 

SI. No		Parameters Protocol		Unit	Hanumanahalli	Standards as per IS: 10500:2012	
	1		APHA-23RD Edition-2120 C		Village (GW2)	Desirable Limits	Permissible Limits
	1.	Color	(Pg No. 2 -7 to 2-8)	Hazen	<5	5	15
	2.	Cadmium as Cd	APHA-23RD Edition-3111 –B (Pg No.3 -20 to 3-21)	mg/L	<0.001	0.003	NR
	3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any	-
	4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	100ml sample Shall not be detectable in any	
N	Note: Ab: Absent, NR: No Relaxatio					100ml sample	

N No Relaxation

**Analysed By** Priyanka B M Chemist

OSPE Authorised Signatory K. Ramakrishna Reddy

**Technical Manager** 

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



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



**ANNEXURE-43** 

# GEMS-LD/TF/23/01 Analysis Report of Water Quality Data

- 1 Name of the Industry
- : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. ÷ WO/ADMIN/FY24/R018
- 2 **Customer Reference** 3 Sample collected by
- **GLOBAL Environment & Mining Services** :

Pollution & Environment

- Particulars of sample collected Grab Sampling 1
- 5 **Sampling Procedure** 6 Discipline
- GEMS-LD/SOP/32 : Chemical

4295

: 13.12.2023

: 13.12.2023

13.12.2023

Ground Water

:

;

:

:

1

:

7 Group

4

- 8 Sample Type
- 9 Sample Code
- 10 Date of Sampling
- 11 Sample Received
- 12 Date of Analysis
- Date of Analysis Completion 13 14
- Report Issue Date 15 **Report Number**
- 19.12.2023 : 06.01.2024

#### : ULR-TC532323000001621F

#### **Results**

SI. No	Parameters	Protocol	Unit	Galemmana Gudi Village	Standards as per IS: 10500:2012		
				(GW3)	Desirable Limits	Permissible Limits	
1.	рН	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.48	6.5 to 8.5	NR	
2.	Conductivity	APHA 23 <sup>rd</sup> Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	2850			
3.	Total Dissolved Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1767	500	2000	
4.	Turbidity (NTU)	APHA 23 <sup>rd</sup> Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.4	1	5	
5.	Total Suspended Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0		5	
6.	Sulphate as SO4	APHA 23 <sup>rd</sup> Edition 2017 4500 -SO <sub>4</sub> <sup>2-</sup> E (Page No. 4-199 to 4-200)	mg/L	110.60	200	400	
7.	Phosphorusas P	APHA 23 <sup>rd</sup> Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	200	400	
8.	Sodium as Na	APHA 23 <sup>rd</sup> Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	189.8			
9.	Potassium as K	APHA 23 <sup>rd</sup> Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0			
10.	Calcium as Ca	APHA 23 <sup>rd</sup> Edition 2017 3500 Ca B	mg/L	182.76	75	-	
11.	Magnesium as Mg	(Pg. No.3-69 to 3-70) APHA 23 <sup>rd</sup> Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	30.88	30	200	
12.	Total Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	584.0	200	600	
13.	Chloride as Cl	APHA 23 <sup>rd</sup> Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	529.78	250	1000	
14.	Fluoride as F	APHA 23 <sup>rd</sup> Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.91	1	1.5	
15.	Nitrate Nitrogen as NO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2017 4500 NO <sub>3</sub> E	mg/L	15.71	45	1.5 	
16.	Total Alkalinity as CaCO3	(Pg. No.4-131 to 4-132) APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	560.0	200	600	

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.

The result listed reters only to the tested samples & applicable parameters. Endorsement of products is neither interred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in wr Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey 2. 3. 4. 5.

NABE

Acidity as CaCO<sub>3</sub>

Total Iron as Fe

17.

18.

19

20.

21.

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23.

24.

25.

Note

1.

2. 3. 4. 5. 6.

Chromium as Cr

# **GLOBAL**ENVIRONMENT & MINING SERVICES

mg/L

mg/L

mg/L

Nil

< 0.01

< 0.05

(Consulting Engineers, Mine designers, Geologist & Surveyors) 3<sup>rd</sup> Main Road, Basaveswara Badavane, HOSAPETE - 583201, Dist., Vijayanagara (Karnataka) 4 355369



**ANNEXURE-43** 

NR

NR

0.30

1.50

15

NR

0.05

NR

-

0.30

0.02

0.10

0.05

5

0.01

0.01

0.05

Ph	:08394		
e-mail	: gems		

: gems\_hpt@yahoo.com : www.globalmining.in Website

APHA 22nd Edition 2017 2320 B

(Pg. No.2-34 to 2-36)

APHA 23rd Edition 2017 3500 Fe-B.

rotal from as re	(Pg. No.3-80 to 3-82)	mg/L	0.11	
Nickel N'	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air		UIII	
Nickel as Ni	Acetylene Flame Method	mg/L	<0.02	
Manganese as Mn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air	17		
	Acetylene Flame Method	mg/L	<0.1	
Copper as Cu	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air	mg/L		
	Acetylene Flame Method		0.320	
Zinc as Zn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air			
	Acetylene Flame Method	mg/L	0.228	
Lead as Pb	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air			
boud us i b	Acetylene Flame Method	mg/L	< 0.01	
Arsenic as As	APHA 23 <sup>rd</sup> Edition 2017 3114 B.			
rusellie as As	(D) N 2017 5114 D.	mall	.0.04	

(Pg. No.3-36 to 3-40)

APHA 23rd Edition 2017 3500 Cr-B.

(Pg. No.3-71 to 3-72) Note: GW3: GalemmanaGudi Village. NR-No relaxation.

> As per Standards IS: 10500:2012 **INFERENCE** Report Status: - Measured Values for the above parameters are within the limits.

**Analysed By** Priyanka B M Chemist

Authoris K. Ramakrishna Reddy **Technical Manager** 

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



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

#### **ANNEXURE-43** GEMS-LD/TF/23/01

# Analysis Report of Water Quality Data

1	Name of the Industry		RMM Ispat I to I
2	Customer Reference	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
3	Sample collected by	:	WO/ADMIN/FY24/R018
		:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Grab Sampling
5	Sampling Procedure	:	GEMS-LD/SOP/32
6	Discipline	;	Chemical
7	Group		
8	Sample Type	:	Pollution & Environment
9		:	Ground Water
	Sample Code	:	4295
10	Date of Sampling	:	13.12.2023
11	Sample Received		13.12.2023
12	Date of Analysis		
13	Date of Analysis Completion	•	13.12.2023
		:	19.12.2023
14	Report Issue Date	:	06.01.2024

**Results** 

	SI. No	Parameters	Protocol	Unit	Galemmana Gudi	Standards 10500	as per IS: :2012
ł	1 0.1		APHA-23RD Edition-2120 C		Village (GW3)	Desirable Limits	Permissible Limits
+	1.	Color	(Pg No. 2 -7 to 2-8)	Hazen	<5	5	15
	2.	Cadmium as Cd	APHA-23RD Edition-3111 –B (Pg No.3 -20 to 3-21)	mg/L	<0.001	0.003	
	3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any	NR
	4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	100ml sample Shall not be detectable in any	
No	Note: Ab: Absent, NR: No Relavatio		on	100 111		100ml sample	-

No Relaxation

**Analysed By** Priyanka B M Chemist

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

Recognised by Ministry of Environment, Forest and Climate Change for Laboratory 

Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



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



**ANNEXURE-44** GEMS-LD/TF/23/01

# Analysis Report of Water Quality Data

GLOBAL Environment & Mining Services

- 1 Name of the Industry 2 **Customer Reference**
- BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. WO/ADMIN/FY24/R018 :
- 3 Sample collected by
- Particulars of sample collected 4
- Sampling Procedure 5
- 6 Discipline
- 7 Group

15

- 8 Sample Type
- 9 Sample Code
- Date of Sampling 10
- 11 Sample Received
- 12 Date of Analysis

**Report Number** 

- 13 Date of Analysis Completion Report Issue Date 14
- :

#### ULR-TC532323000001619F :

### **Results**

Sl. No	Parameters	Protocol	Unit	Mariyammana Halli Village	Standards as per IS: 10500:2012		
				(GW4)	Desirable Limits	Permissible	
1.	рН	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.39	6.5 to 8.5	Limits	
2.	Conductivity	APHA 23 <sup>rd</sup> Edition 2017 2510 A			0.5 10 8.5	NR	
3.	Total Dissolved Solids	(Pg. No.2-56 to 2-58) APHA 23 <sup>rd</sup> Edition 2017 2540 C	μS/cm	2400	-	-	
		(Pg. No.2-69 to 2-70)	mg/L	1488	500	2000	
4.	Turbidity (NTU)	APHA 23 <sup>rd</sup> Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.4	1	5	
5.	Total Suspended Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0		5	
6.	Sulphate as SO4	APHA 23 <sup>rd</sup> Edition 2017 4500 -SO <sub>4</sub> <sup>2-</sup> E (Page No. 4-199 to 4-200)	mg/L	215.7	200	-	
7.	Phosphorusas P	APHA 23 <sup>rd</sup> Edition 2017 4500-P	mg/L	Nil	200	400	
8.	Sodium as Na	D (Page No. 4-163 to 4-164) APHA 23 <sup>rd</sup> Edition 2017 Na 3500 B		INII	-	-	
9.	Potassium as K	(Pg. No.3-99 to 3-100) APHA 23 <sup>rd</sup> Edition 2017 K 3500 B	mg/L	317.8	-	-	
		(Pg. No.3-89 to 3-90)	mg/L	0.0	-	-	
10.	Calcium as Ca	APHA 23 <sup>rd</sup> Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	122.4	75	200	
11.	Magnesium as Mg	APHA 23 <sup>rd</sup> Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	54.72			
12.	Total Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2017 2340 C	mg/L		30	100	
13.	Chloride as Cl	(Page No. 2-48 to 2-50) APHA 23 <sup>rd</sup> Edition 2017 4500 Cl-	IIIg/L	525.2	200	600	
14.	Fluoride as F	(Page No. 4-75 to 4-76) APHA 23 <sup>rd</sup> Edition 2017 4500 F- D	mg/L	399.84	250	1000	
		(Page No. 4-90 to 4-91)	mg/L	0.35	1	1.5	
15.	Nitrate Nitrogen as NO3	APHA 23 <sup>rd</sup> Edition 2017 4500 NO <sub>3</sub> E (Pg. No.4-131 to 4-132)	mg/L	24.10	45		
16.	Total Alkalinity as CaCO3	APHA 22nd Edition 2017 2320 B	mg/L	470.4		NR	
Note:		(Pg. No.2-37 to 2-39)	8/	470.4	200	600	

2. 3.

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.

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GEMS-LD/SOP/32 : : Chemical Pollution & Environment 5

Grab Sampling

- Ground Water 2
- 4293 :

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- 13.12.2023 :
- : 13.12.2023
- : 13.12.2023
  - 1 19.12.2023
- 06.01.2024

# **GLOBALENVIRONMENT & MINING SERVICES**

(Consulting Engineers, Mine designers, Geologist & Surveyors) 3<sup>rd</sup> Main Road, Basaveswara Badavane, HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph :08394 355369

e-mail : gems\_hpt@yahoo.com

Website : www.globalmining.in



		1000 1 - 1			AN	<b>INEXURE-44</b>
17.	Acidity as CaCO <sub>3</sub>	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.13	0.30	NR
19.	Nickel as Ni	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.238	0.05	1.50
22.	Zinc as Zn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.208	5	15
23.	Lead as Pb	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 <sup>rd</sup> Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72)	mg/L	<0.05	0.05	NR

Note: GW4: Mariyammanahalli Village. NR-No relaxation

As per Standards IS: 10500:2012 **INFERENCE** Report Status: - Measured Values for the above parameters are within the limit.

**Analysed** By Priyanka B M Chemist

Authorised Signatory K. Ramakrishna Reddy Technical Manager

Note: 1. 2. 3. 4. 5. 6.

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



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

#### ANNEXURE-44 GEMS-LD/TF/23/01

# Analysis Report of Water Quality Data

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Grab Sampling
5	Sampling Procedure	:	GEMS-LD/SOP/32
6	Discipline	:	Chemical
7	Group	:	Pollution & Environment
8	Sample Type		Ground Water
9	Sample Code	;	4293
10	Date of Sampling	;	13.12.2023
11	Sample Received	:	13.12.2023
12	Date of Analysis		13.12.2023
13	Date of Analysis Completion		19.12.2023
14	Report Issue Date		06.01.2024

**Results** 

SI. No	No Parameters		Unit	Mariyammana Halli Village	Standards as per IS: 10500:2012	
				(GW4)	Desirable Limits	Permissible Limits
1.	Color	APHA-23RD Edition-2120 C (Pg No. 2 -7 to 2-8)	Hazen	<5	5	15
2.	Cadmium as Cd	APHA-23RD Edition-3111 –B (Pg No.3 -20 to 3-21)	mg/L	<0.001	0.003	NR
3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	100ml sample Shall not be detectable in any 100ml sample	-

Note: Ab: Absent, NR: No Relaxation

**Analysed By** Priyanka B M Chemist

Authorised Signator K. Ramakrishna Reddy Technical Manager

Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
 Recognised by Covernment of Kometeles, Multiple Participation



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



**ANNEXURE-45** GEMS-LD/TF/23/01

# Analysis Report of Water Quality Data

- Name of the Industry 1
- : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. WO/ADMIN/FY24/R018 :
- 2 **Customer Reference** 3 Sample collected by
- : GLOBAL Environment & Mining Services

Chemical

Particulars of sample collected : Grab Sampling : GEMS-LD/SOP/32

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- 5 **Sampling Procedure** 6
- Discipline
- 7 Group 8

4

- Sample Type 9
- Sample Code
- 10 Date of Sampling
- 11 Sample Received 12
- Date of Analysis 13
- Date of Analysis Completion
- 14 **Report Issue Date Report Number** 15
- : 19.12.2023 06.01.2024

13.12.2023

13.12.2023

:

#### ULR-TC532323000001622F 1

#### **Results**

Sl. No	Parameters	Protocol	Unit	Gunda Thanda	Standards as per IS: 10500:2012		
				(GW5)	Desirable Limits	Permissible Limits	
1.	рН	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.38	6.5 to 8.5	NR	
2.	Conductivity	APHA 23 <sup>rd</sup> Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	1150	-	_	
3.	Total Dissolved Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	713	500	2000	
4.	Turbidity (NTU)	APHA 23 <sup>rd</sup> Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.4	1	5	
5.	Total Suspended Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-	
6.	Sulphate as SO4	APHA 23 <sup>rd</sup> Edition 2017 4500 -SO4 <sup>2</sup> E (Page No. 4-199 to 4-200)	mg/L	45.62	200	400	
7.	Phosphorusas P	APHA 23 <sup>rd</sup> Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-	
8.	Sodium as Na	APHA 23 <sup>rd</sup> Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	74.75	_	_	
9.	Potassium as K	APHA 23 <sup>rd</sup> Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	_	-	
10.	Calcium as Ca	APHA 23 <sup>rd</sup> Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	65.28	75	200	
11.	Magnesium as Mg	APHA 23 <sup>rd</sup> Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	24.93	30	100	
12.	Total Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	262.6	200	600	
13.	Chloride as Cl	APHA 23 <sup>rd</sup> Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	194.92	250	1000	
14.	Fluoride as F	APHA 23 <sup>rd</sup> Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.38	1	1.5	
15.	Nitrate Nitrogen as NO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2017 4500 NO <sub>3</sub> E (Pg. No.4-131 to 4-132)	mg/L	9.06	45	NR	
16.	Total Alkalinity as CaCO3	APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	280.0	200	600	

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.

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Pollution & Environment

**Ground Water** 4296 13.12.2023

# **GLOBAL**ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors) 3<sup>rd</sup> Main Road, Basaveswara Badavane, HOSAPETE - 583201, Dist., Vijayanagara (Karnataka) Ph : 08394 355369

: gems\_hpt@yahoo.com

Website : www.globalmining.in



17.	Acidity as CaCO <sub>3</sub>	APHA 22nd Edition 2017 2320 B			A	NNEXURE-45
18.	Total Iron as Fe	(Pg. No.2-34 to 2-36) APHA 23rd Edition 2017 3500 Fe-B.	mg/L	Nil	-	-
19.		(Pg. No.3-80 to 3-82)	mg/L	0.12	0.30	NR
	Nickel as Ni	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	
20.	Manganese as Mn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L			NR
21.	Copper as Cu	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air		<0.1	0.10	0.30
22.	Zinc as Zn	Acetylene Flame Method APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air	mg/L	0.214	0.05	1.50
23.	Lead as Pb	Acetylene Flame Method	mg/L	0.105	5	15
		APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	ND
24.	Arsenic as As	APHA 23 <sup>rd</sup> Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	-0.01		NR
25.	Chromium as Cr	APHA 23rd Edition 2017 3500 Cr-B		<0.01	0.01	0.05
lote: G	W5: Gunda Thanda	(Pg. No.3-71 to 3-72)	mg/L	< 0.05	0.05	NR

GW5: Gunda Thanda. NR-No relaxation.

e-mail

As per Standards IS: 10500:2012 **INFERENCE** Report Status: - Measured Values for the above parameters are within the limit.

**Analysed By** Priyanka B M Chemist

Autl sed Signatory K. Ramakrishna Reddy **Technical Manager** 

Note: 1.

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey 2. 3. 4. 5. 6.



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

#### ANNEXURE-45 GEMS-LD/TF/23/01

# **Analysis Report of Water Quality Data**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Grab Sampling
5	Sampling Procedure	:	GEMS-LD/SOP/32
6	Discipline	:	Chemical
7	Group	:	Pollution & Environment
8	Sample Type	:	Ground Water
9	Sample Code	:	4296
10	Date of Sampling	:	13.12.2023
11	Sample Received	:	13.12.2023
12	Date of Analysis	:	13.12.2023
13	Date of Analysis Completion	:	19.12.2023
14	Report Issue Date	:	06.01.2024
			Results

#### <u>Results</u>

SI. No	Parameters	Protocol	Unit	Gunda Thanda	Standards as per IS: 10500:2012	
				(GW5)	Desirable Limits	Permissible Limits
1.	Color	APHA-23RD Edition-2120 C (Pg No. 2 -7 to 2-8)	Hazen	<5	5	15
2.	Cadmium as Cd	APHA-23RD Edition-3111 –B (Pg No.3 -20 to 3-21)	mg/L	<0.001	0.003	NR
3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-

Note: Ab: Absent, NR: No Relaxation

Analysed By Priyanka B M Chemist

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

Recognised by Ministry of Environment, Forest and Climate Change for Laboratory



(Consulting Engineers, Mine designers, Geologist & Surveyors) 3rd Main Road, Basaveswara Badavane, HOSAPETE - 583201, Dist., Vijayanagara (Karnataka) Ph :08394 355369 e-mail

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#### **ANNEXURE-46** GEMS-LD/TF/23/01

## **Analysis Report of Water Quality Data**

- 1 Name of the Industry
- BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. ÷ ÷ WO/ADMIN/FY24/R018
- 2 **Customer Reference** 3 Sample collected by
- **GLOBAL Environment & Mining Services** ÷ ; **Grab Sampling**

Ground Water

13.12.2023

: 13.12.2023

: 19.12.2023

13.12.2023

Chemical

4297

GEMS-LD/SOP/32

Pollution & Environment

- 4 Particulars of sample collected
- 5 Sampling Procedure 6
  - Discipline
- 7 Group
- 8 Sample Type
- 9 Sample Code
- Date of Sampling 10
- 11 Sample Received
- 12 Date of Analysis
- 13 Date of Analysis Completion Report Issue Date 14
- : 06.01.2024
- 15 **Report Number**
- ULR-TC532323000001623F :

#### **Results**

SI. No	Parameters	Protocol	Unit	Gunda Village (GW6)	Standards as per IS: 10500:2012		
NO					Desirable Limits	Permissible Limits	
1.	рН	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.10	6.5 to 8.5	NR	
2.	Conductivity	APHA 23 <sup>rd</sup> Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	1950	-	-	
3.	Total Dissolved Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1209	500	2000	
4.	Turbidity (NTU)	APHA 23 <sup>rd</sup> Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.3	1	5	
5.	Total Suspended Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-	
6.	Sulphate as SO4	APHA 23 <sup>rd</sup> Edition 2017 4500 -SO4 <sup>2-</sup> E (Page No. 4-199 to 4-200)	mg/L	101.56	200	400	
7.	Phosphorusas P	APHA 23 <sup>rd</sup> Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-	
8.	Sodium as Na	APHA 23 <sup>rd</sup> Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	158.9	-	-	
9.	Potassium as K	APHA 23 <sup>rd</sup> Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0		-	
10.	Calcium as Ca	APHA 23 <sup>rd</sup> Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	126.48	75	200	
11.	Magnesium as Mg	APHA 23 <sup>rd</sup> Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	62.11	30	100	
12.	Total Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	565.6	200	600	
13.	Chloride as Cl	APHA 23 <sup>rd</sup> Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	364.85	250	1000	
14.	Fluoride as F	APHA 23 <sup>rd</sup> Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.68	1	1.5	
15.	Nitrate Nitrogen as NO3	APHA 23 <sup>rd</sup> Edition 2017 4500 NO <sub>3</sub> E (Pg. No.4-131 to 4-132)	mg/L	11.41	45	NR	
16.	Total Alkalinity as CaCO <sub>3</sub>	APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	537.6	200	mente	

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



(Consulting Engineers, Mine designers, Geologist & Surveyors) 3<sup>rd</sup> Main Road, Basaveswara Badavane. HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph :08394 355369

e-mail : gems\_hpt@yahoo.com

Website : www.globalmining.in



					A	NNEXURE-46
17.	Acidity as CaCO3	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.13	0.30	NR
19.	Nickel as Ni	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.168	0.05	1.50
22.	Zinc as Zn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.096	5	15
23.	Lead as Pb	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 <sup>rd</sup> Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72)	mg/L	<0.05	0.05	NR

Note: GW6: Gunda Village. NR-No relaxation.

As per Standards IS: 10500:2012 **INFERENCE** Report Status: - Measured Values for the above parameters are within the limit.

**Analysed By** Priyanka B M Chemist



- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.

Note:

1. 2. 3. 4. 5. 6.

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

#### ANNEXURE-46 GEMS-LD/TF/23/01

# **Analysis Report of Water Quality Data**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Grab Sampling
5	Sampling Procedure	:	GEMS-LD/SOP/32
6	Discipline	:	Chemical
7	Group	:	Pollution & Environment
8	Sample Type	:	Ground Water
9	Sample Code	:	4297
10	Date of Sampling	:	13.12.2023
11	Sample Received	:	13.12.2023
12	Date of Analysis	:	13.12.2023
13	Date of Analysis Completion	:	19.12.2023
14	Report Issue Date	:	06.01.2024

#### **Results**

SI. No	Parameters		Unit	Gunda Village	Standards as per IS: 10500:2012	
				(GW6)	Desirable Limits	Permissible Limits
1.	Color	APHA-23RD Edition-2120 C (Pg No. 2 -7 to 2-8)	Hazen	<5	5	15
2.	Cadmium as Cd	APHA-23RD Edition-3111 –B (Pg No.3 -20 to 3-21)	mg/L	<0.001	0.003	NR
3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-

Note: Ab: Absent, NR: No Relaxation

**Analysed By** Priyanka B M Chemist

Authorised Signator K. Ramakrishna, Redel Technical Manager

Recognised by Ministry of Environment, Forest and Climate Change for Laboratory



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



#### **ANNEXURE-47** GEMS-LD/TF/23/01

## **Analysis Report of Water Quality Data**

WO/ADMIN/FY24/R018

**Pollution & Environment** 

BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.

- 1 Name of the Industry 2
- **Customer Reference** 3 Sample collected by
- **GLOBAL Environment & Mining Services** : **Grab Sampling**

GEMS-LD/SOP/32

**RO** Drinking Water

- 4 Particulars of sample collected
- 5 **Sampling Procedure** 6 Discipline
- : Chemical

4298

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- 7 Group
- 8 Sample Type
- 9 Sample Code
- 10 Date of Sampling
- 11 Sample Received
- 12 Date of Analysis
- 13 Date of Analysis Completion
  - **Report Issue Date**
- 15 **Report Number**

14

: 19.12.2023 ; 06.01.2024

13.12.2023

: 13.12.2023

13.12.2023

; ULR-TC532323000001624F

#### **Results**

SI.	Parameters	Protocol	Unit	RO Drinking	Standards as per IS: 10500:2012		
No			Ome	Water	Desirable Limits	Permissible Limits	
1.	рН	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.39	6.5 to 8.5	NR	
2.	Conductivity	APHA 23 <sup>rd</sup> Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	180	-	-	
3.	Total Dissolved Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	112	500	2000	
4.	Turbidity (NTU)	APHA 23 <sup>rd</sup> Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.0	1	5	
5.	Total Suspended Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-	
6.	Sulphate as SO4	APHA 23 <sup>rd</sup> Edition 2017 4500 -SO4 <sup>2-</sup> E (Page No. 4-199 to 4-200)	mg/L	12.56	200	400	
7.	Phosphorusas P	APHA 23 <sup>rd</sup> Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-	
8.	Sodium as Na	APHA 23 <sup>rd</sup> Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	0.0	-	-	
9.	Potassium as K	APHA 23 <sup>rd</sup> Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-		
10.	Calcium as Ca	APHA 23 <sup>rd</sup> Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	8.16	75	200	
11.	Magnesium as Mg	APHA 23 <sup>rd</sup> Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	4.95	30	100	
12.	Total Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	40.4	200	600	
13.	Chloride as Cl	APHA 23 <sup>rd</sup> Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	29.98	250	1000	
14.	Fluoride as F	APHA 23 <sup>rd</sup> Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.28	1	1.5	
15.	Nitrate Nitrogen as NO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2017 4500 NO <sub>3</sub> E (Pg. No.4-131 to 4-132)	mg/L	0.96	45	NR	
16.	Total Alkalinity as CaCO3	APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	67.2	200	600	

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(Consulting Engineers, Mine designers, Geologist & Surveyors) 3<sup>rd</sup> Main Road, Basaveswara Badavane, HOSAPETE - 583201, Dist., Vijayanagara (Karnataka) Ph

:08394 355369

- : gems\_hpt@yahoo.com e-mail
- : www.globalmining.in Website



					AN	<b>INEXURE-47</b>
17.	Acidity as CaCO <sub>3</sub>	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.06	0.30	NR
19.	Nickel as Ni	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.05	1.50
22.	Zinc as Zn	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	5	15
23.	Lead as Pb	APHA 23 <sup>rd</sup> Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 <sup>rd</sup> Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72)	mg/L	<0.05	0.05	NR
26.	Mercury as Hg	APHA 23 <sup>rd</sup> Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	Nil	0.001	NR

Note: W6: RO Drinking Water. NR-No relaxation. Ab-Absent.

As per Standards IS: 10500:2012 **INFERENCE** Report Status: - Measured Values for the above parameters are within the limit.

**Analysed By** Priyanka B M Chemist

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

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.

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

Note:

1. 2. 3. 4. 5.



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

#### ANNEXURE-47 GEMS-LD/TF/23/01

# **Analysis Report of Water Quality Data**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Grab Sampling
5	Sampling Procedure	:	GEMS-LD/SOP/32
6	Discipline	:	Chemical
7	Group	:	Pollution & Environment
8	Sample Type	:	RO Drinking Water
9	Sample Code	:	4298
10	Date of Sampling	:	13.12.2023
11	Sample Received	:	13.12.2023
12	Date of Analysis	:	13.12.2023
13	Date of Analysis Completion	:	19.12.2023
14	Report Issue Date	:	06.01.2024
			Results

SI.	Parameters	Protocol Un		RO Drinking	Standards as per IS: 10500:2012		
No	Faiameters	FIOLOCOI	Unit	Water	Desirable Limits	Permissible Limits	
1.	colour	IS: 3025 (PART 4)- 1984, RA-2012 Platinum cobalt Method	Hazen	<5	5	15	
2.	Odour	IS: 3025 (PART 5)- 1983, RA-2012, True Odour	-	Agreeable	Agreeable	Agreeable	
3.	Total Residual chlorine	IS:3025 (part 26)-1986, RA-2003, Iodometric method	mg/L	Nil	0.2	1.0	
4.	Oil & Grease	Clause 6 of IS 3025 (Part 39) Infrared	mg/L	Nil	0.5	No Relaxation	
5.	Cadmium as Cd	APHA-23RD Edition-3111 –B (Pg No.3 -20 to 3-21)	mg/L	<0.001	0.003	NR	
6.	Selenium as Se	APHA 23 <sup>rd</sup> Edition 3114 B. Direct Air Acetylene Flame Method	mg/L	mg/L <0.05		No Relaxation	
7.	Cyanides (as CN)	APHA 23 <sup>RD</sup> Edition 4500 CN <sup>-</sup> (Pg. No.4-45 to 4-46)	mg/L	NA	0.05	No Relaxation	
8.	Phenolic Compound as phenols	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L BDL		1.0	-	
9.	Anionic detergents (as MBAS)	APHA 23 <sup>RD</sup> Edition 5540 C (Pg. No.5-55 to 5-57)	mg/L BDL		0.2	1.0	
10.	Boron as B	APHA 23rd Edition 2017 4500 B-B (p.no.4-25 to 4-26)	mg/L < <b>0.5</b>		0.5	1.0	
11.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml Ab		Shall not be detectable in any 100ml sample	-	

Note: Ab: Absent, NR: No Relaxation,

**Analysed By** 

Priyanka B M Chemist

Authorised Signator K. Ramakrishna Reddy Technical Manager

Recognised by Ministry of Environment, Forest and Climate Change for Laboratory



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### **GLOBALENVIRONMENT & MINING SERVICES**

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



#### **ANNEXURE-48** GEMS-LD/TF/23/01

# **Analysis Report of Water Quality Data**

1 Name of the Industry

**Customer Reference** 

Sample collected by

- : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- WO/ADMIN/FY24/RO18 :

**Pollution & Environment** 

: GEMS-LD/SOP/32

: Chemical

:

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ţ,

: GLOBAL Environment & Mining Services

: Sewage Treatment Plant (Outlet)

- : Composite Sampling Particulars of sample collected
- 5 Sampling Procedure
- 6 Discipline
- 7 Group
- Sample Type 8
- 9 Date of Sampling
- 10 Sample Received
- Date of Analysis 11
- Date of Analysis Completion 12
- 1 19.12.2023
- 13 **Report Issue Date Report Number** 14
- 06.01.2024 5 ULR-TC532323000001630F

13.12.2023

: 13.12.2023

: 13.12.2023

Results SI. STP-2 Protocol Unit STP STP-1 **Parameters** As per No. **90 KLD 90 KLD** 45 KLD **KSPCB** Std ----4304 4305 4306 Sample code APHA 23rd Edition 2017 4500 H+ 6.5 to 8.5 7.51 \_ 7.57 7.33 pН 1. B (Pg. No.4-95 to 4-99) APHA 23rd Edition 2017 2540 D 8.0 <20 mg/L 12.0 18.0 2. **Total Suspended Solids** (Pg. No.2-70 to 2-71) **Biochemical** Oxygen IS:3025 (part 44)-1993, 6.0 3.0 <10 mg/L 3.0 Demand as BOD (3 days at 3. Reaffirmed -2019 27°C) APHA 23rd Edition 2017 5220 Chemical Oxygen Demand 43.2 20.4 <50 mg/L 20.4 4. as COD C (Pg. No.5-18 to 5-19) APHA 23rd Edition 2017 5520 B 4.0 2.0 10 mg/L 2.0 5. **Oil & Grease** (Pg. No.5-41 to 5-42)

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

STP 45 KLD - Near Fortivia

STP-1 90 KLD -Near ISP Area

Note

2 3. 4 5. 6

STP-2 90 KLD - Near Gunda Guest House

**Analysed By** Privanka B M Chemist



The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.

The result issued refers only to the tested samples & applicable parameters. Endotsement on products is neither interfection implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory



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

#### **ANNEXURE-48** GEMS-LD/TF/23/01

# **Analysis Report of Water Quality Data**

: WO/ADMIN/FY24/R018

: Pollution & Environment

: Sewage Treatment Plant (Outlet)

: GEMS-LD/SOP/32

- Name of the Industry 1
- BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. \$
- 2 **Customer Reference**
- Sample collected by 3
- : GLOBAL Environment & Mining Services : Composite Sampling

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- 4 Particulars of sample collected
- 5 Sampling Procedure
  - : Chemical
- 7 Group
- 8 Sample Type

Discipline

- 9 Date of Sampling
- Sample Received 10
- 11 Date of Analysis
- 12 Date of Analysis Completion
- 13 **Report Issue Date**
- : 13.12.2023 : 19.12.2023 06.01.2024

13.12.2023

: 13.12.2023

Results SI. As per Unit **Parameters** Protocol STP STP-1 STP-2 **KSPCB** No. **90 KLD 90 KLD 45 KLD** Std 4305 4306 Sample code -4304 APHA 23<sup>RD</sup> Edition 2120 B 5 5 5 -Hazen 1. Color (Pg. No.2-6 to 2-7) IS: 3025 (PART 5)- 1983, RA-2012, Agree Agree Agree 2. **Odour** True Odour able able able APHA 23RD Edition 4500 CN-BDL BDL BDL \_ mg/L 3. Cyanides (as CN) (Pg. No.4-45 to 4-46) IS:3025 (part 43)-1992, RA-2014, BDL BDL BDL mg/L -Phenolic Compounds (as C<sub>6</sub>H<sub>5</sub>OH) 4. Chloroform extraction method APHA-23<sup>RD</sup> Edition-3500 Cr B mg/L < 0.001 < 0.001 < 0.001 ... 5. Chromium (as Cr<sup>6+</sup>) (Pg. No.3-71 to 3-72) IS:3025 (part 34)-1988, RA-2014, 0.74 1.12 mg/L 1.32 ..... Ammonical nitrogen as N 6. Nesslerization method

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

STP 45 KLD - Near Fortivia

STP-1 90 KLD - Near ISP Area

STP-2 90 KLD - Near Gunda Guest House

**Analysed By** Priyanka B M Chemist

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

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- Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



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#### **ANNEXURE-49** GEMS-LD/TF/23/01

# **Analysis Report of Water Quality Data**

- Name of the Industry 1
- : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- : WO/ADMIN/FY24/RO18
- 2 **Customer Reference** GLOBAL Environment & Mining Services Sample collected by 3 2 : Composite Sampling 4 Particulars of sample collected Sampling Procedure : GEMS-LD/SOP/32 5 6 Discipline : Chemical : Pollution & Environment 7 Group Waste Water 8 Sample Type 1 : 13.12.2023 9 Date of Sampling : 13.12.2023 10 Sample Received Date of Analysis : 13.12.2023 11 Date of Analysis Completion : 19.12.2023 12 **Report Issue Date** 06.01.2024 13 5 : ULR-TC532323000001625F 14 **Report Number Results**

				Res	ults	
SI. No.	Parameters	Protocol	Unit	Neutralization Pit 70 MW Power Plant	Neutralization Pit 2x70 MW Power Plant	As per KSPCB Std
		Sai	mple Code	4299	4230	
1.	рН	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	8.76	8.36	6.5 to 9.0
2.	Total Suspended Solids	APHA 23 <sup>rd</sup> Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	4.0	6.0	100
3.	Chemical Oxygen Demand as COD	APHA 23 <sup>rd</sup> Edition 2017 5220 C (Pg. No.5-18 to 5-19)	mg/L	20.0	28.0	250
4.	Oil & Grease	APHA 23rd Edition 2017 5520 B (Pg. No.5-41 to 5-42)	mg/L	2.0	2.0	10

Note: BDL-Below detectable Limit.

1. 2. 3. 4.

5. 6.

INFERENCE: The Measured values are within the Limit.

Analysed By Privanka B M Chemist

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

Note

The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.

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## **GLOBALENVIRONMENT& MINING SERVICES**

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

#### **ANNEXURE-50** GEMS-LD/TF/23/01

# **Analysis Report of Surface Water Quality Data**

BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. Name of the Industry : 1 WO/ADMIN/FY24/R018 2 **Customer Reference** : **GLOBAL Environment & Mining Services** 3 Sample collected by : : Composite Sampling Particulars of sample collected 4 5 Sampling Procedure GEMS-LD/SOP/32 : 6 Discipline . Chemical 7 **Pollution & Environment** Group 2 8 Sample Type : Surface Water : 13.12.2023 9 Date of Sampling Sample Received : 13.12.2023 10 Date of Analysis : 13.12.2023 11 12 Date of Analysis Completion : 19.12.2023 13 **Report Issue Date** : 06.01.2024

SI.	1			Res	IS 2296 - 1982	
SI. No.	Parameters	Protocol Unit		Danayakanakere Upstream		Danayakanakere Downstream
		Sa	ample code	4301	4302	CLASS -B
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.40	7.51	6.5-8.5
2.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	0.0	0.0	3.0
3.	Fluorides as F	APHA 23 <sup>RD</sup> Edition 4500F <sup>-</sup> D (Pg. No.4-90 to 4-91)	mg/L	0.84	0.98	1.5
4.	Arsenic as As	APHA-23 <sup>RD</sup> Edition-3114 –B (Pg. No.3 -36 to 3-40)	mg/L	<0.1	<0.1	0.2
5.	Dissolved Oxygen	APHA 23 <sup>RD</sup> Edition 4500 C (Pg. No.4-146)	mg/L	6.0	6.0	>5.0
6.	Color	APHA 23 <sup>RD</sup> Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	<5	<5	300
7.	Cyanides (as CN)	APHA 23 <sup>RD</sup> Edition 4500 CN <sup>-</sup> (Pg. No.4-45 to 4-46)	mg/L	BDL	BDL	0.05
8.	Phenolic Compounds (as C6H5OH)	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L	BDL BDL		0.005
9.	Chromium (as Cr <sup>6+</sup> )	APHA-23 <sup>RD</sup> Edition-3500 Cr B (Pg. No.3-71 to 3-72)	mg/L	<0.001 <0.001		1.0
10.	Anionic detergents (as MBAS)	APHA 23 <sup>RD</sup> Edition 5540 C (Pg. No.5-55 to 5-57)	mg/L	BDL	BDL	1.0
11.	<b>Total Coliform Organisms</b>					
	Total Coli forms	IS : 15185 : 2016	MPN/ 100 ml	Absent	Absent	500
	Escherichia coli or E. coli	IS : 15185 : 2016	MPN/ 100 ml	Absent	Absent	-

Note: BDL-Below detectable Limit.

**INFERENCE:** The Measured values are within the Limit.

Analysed By Priyanka B M

Chemist



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



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

#### ANNEXURE-51 GEMS-LD/TF/23/01

# **Analysis Report of Surface Water Quality Data**

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Composite Sampling
5	Sampling Procedure	:	GEMS-LD/SOP/32
6	Discipline	:	Chemical
7	Group	:	Pollution & Environment
8	Sample Type	:	Surface Water
9	Date of Sampling	:	-
10	Sample Received	:	-
11	Date of Analysis	:	-
12	Date of Analysis Completion	:	-
13	Report Issue Date	:	06.01.2024

SI.				Res	10.0001	
51. No.	Parameters	Protocol	Unit	KempuHalla Upstream	KempuHalla Downstream	IS 2296 - 1982
			Sample code	-	-	CLASS -B
1.	рН	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	-	-	6.5-8.5
2.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	-	-	3.0
3.	Fluorides as F	APHA 23 <sup>RD</sup> Edition 4500F <sup>-</sup> D (Pg. No.4-90 to 4-91)	mg/L	-	-	1.5
4.	Arsenic as As	APHA-23 <sup>RD</sup> Edition-3114 –B (Pg. No.3 -36 to 3-40)	mg/L	-	-	0.2
5.	Dissolved Oxygen	APHA 23 <sup>RD</sup> Edition 4500 C (Pg. No.4-146)	mg/L	-	-	>5.0
6.	Color	APHA 23 <sup>RD</sup> Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	-	-	300
7.	Cyanides (as CN)	APHA 23 <sup>RD</sup> Edition 4500 CN- (Pg. No.4-45 to 4-46)	mg/L	-	-	0.05
8.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L	-	-	0.005
9.	Chromium (as Cr <sup>6+</sup> )	APHA-23 <sup>RD</sup> Edition-3500 Cr B (Pg. No.3-71 to 3-72)	mg/L	-	-	1.0
10.	Anionic detergents (as MBAS)	APHA 23 <sup>RD</sup> Edition 5540 C (Pg. No.5-55 to 5-57)	mg/L	-	-	1.0
11.	Total Coliform Organisms,					
	Total Coli forms	IS : 15185 : 2016	MPN/ 100 ml	-	-	500
	Escherichia coli or E. coli	IS : 15185 : 2016	MPN/ 100 ml	-	-	-

Note: BDL-Below detectable Limit

**INFERENCE:** The measured values are within the Limit.

Water Sample not collected, Because KempuHalla no Water Flowing.

**Analysed By** Priyanka B M

Chemist



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



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

#### **ANNEXURE-52** GEMS-LD/TF/23/01

# Analysis Report of Surface Water Quality Data

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Composite Sampling
5	Sampling Procedure	:	GEMS-LD/SOP/32
6	Discipline	:	Chemical
7	Group	:	Pollution & Environment
8	Sample Type	:	Surface Water
9	Date of Sampling	:	13.12.2023
10	Sample Received	:	13.12.2023
11	Date of Analysis	:	13.12.2023
12	Date of Analysis Completion	:	19.12.2023
13	Report Issue Date	:	06.01.2024

SI.				Results		
No.	Parameters	Protocol Unit		Tungabhadra dam	IS 2296 -1982 CLASS -B	
I			Sample Code	4303	011100 15	
1.	рН	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	8.00	6.5-8.5	
2.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	2.0	3.0	
3.	Fluorides as F	APHA 23 <sup>RD</sup> Edition 4500F <sup>-</sup> D (Pg. No.4-90 to 4-91)	mg/L	BDL	1.5	
4.	Arsenic as As	APHA-23 <sup>RD</sup> Edition-3114 –B (Pg. No.3 -36 to 3-40)	mg/L	<0.1	0.2	
5.	Dissolved Oxygen	APHA 23 <sup>RD</sup> Edition 4500 C (Pg. No.4-146)	mg/L	6.0	>5.0	
6.	Color	APHA 23 <sup>RD</sup> Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	5	300	
7.	Cyanides (as CN)	APHA 23 <sup>RD</sup> Edition 4500 CN- (Pg. No.4-45 to 4-46)	mg/L	BDL	0.05	
8.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L	BDL	0.005	
9.	Chromium (as Cr <sup>6+</sup> )	APHA-23 <sup>RD</sup> Edition-3500 Cr B (Pg. No.3-71 to 3-72)	mg/L	<0.001	1.0	
10.	Anionic detergents (as MBAS)	APHA 23 <sup>RD</sup> Edition 5540 C (Pg. No.5-55 to 5-57)	mg/L	BDL	1.0	
11.	Total Coliform Organisms,					
	Total Coli forms	IS : 15185 : 2016	MPN/ 100 ml	Absent	500	
	Escherichia coli or E. coli	IS : 15185 : 2016	MPN/ 100 ml	Absent	-	

Note: BDL-Below detectable Limit

INFERENCE: The measured values are within the Limit.

**Analysed By** Priyanka B M

Chemist

Authorised Signatory K. Ramakrishna Redo Technical Manager

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