



BMM Ispat Ltd.,

ENVIRONMENTAL MONITORING REPORT



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

MARCH - 2024

Prepared by



GLOBAL ENVIRONMENT & MINING SERVICES

NABL & MOEFCC Recognized Laboratory

(Consulting Engineers, Mine Designers, Geologists & Surveyors)

3rd 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

Place: Hosapete
Date: 05.04.2024

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



ENVIRONMENTAL MONITORING REPORT

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.



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 Site Location

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 **MARCH-2024**. The Parameters monitored are:

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

2.0 SCOPE AND METHODOLOGY

2.1 PREAMBLE

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 μ m) PM2.5.

2.2.1 PARTICULATE MATTER (PM₁₀)(size less than 10 μ m).

Purpose

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.

Analysis

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 in an airtight desiccator for 24 hours. Take final weight of the filter paper (Wf).

2.2.2 Particulate Matter (PM_{2.5})(size less than 2.5µm)

Purpose

The purpose of this protocol is to provide guidelines for monitoring and analysis of Particulate Matter PM_{2.5} in ambient air.

Reference Method: USEPA 2001 Method of Measurement of Air Pollution: Particulate Matter (PM_{2.5}) 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 PM_{2.5} 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 PM_{2.5} size ranges divided by the actual volume of air sampled, and is expressed in µg/m³. The microprocessor reads averages and stores five-minute averages of ambient temperature, ambient pressure, filter temperature and volumetric flow rate. In

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 **Sulphur Dioxide (SO₂)**

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

Reference Method: 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.

Analysis

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 Nitrogen Di Oxide (NO₂):**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 dihydrochloride (NEDA) and measuring the absorbance of the highly coloured azo-dye at 540 nm.

2.2.5 Ozone (Chemical method)**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.

Analysis

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(NH₃)

Purpose

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

Analysis

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 Benzo(a)Pyrene

Purpose

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 ~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.

Filtration

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

Sample injection

Take 2µl 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 Benzene

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 (FID) is used for analysis while quantification is performed using the internal/external standard.

Gas Chromatograph

Any suitable gas chromatograph with flame ionization detector (FID) with fused silica capillary columns having a length of 25 m or more, an internal diameter of 0.320 mm or below and with a stationary phase film thickness less than 1.5 μm 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 Carbon Monoxide (CO)

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 is 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)**Purpose**

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 Stack Monitoring

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 Stack Emissions Monitoring Methodology

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 Traverse Point Calculation

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 BUFFERZONE AMBIENT AIR QUALITY STATUS

Danapur Village (A1)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 84.10, 28.03, 8.72 & 11.17 µg/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 72.59, 23.89, 11.17 & 12.28 µg/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 78.67, 24.40, 10.58 & 13.62 µg/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 77.41, 23.72, 9.29 & 12.30 µg/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 66.05, 18.52, 9.52 & 11.28 µg/m³ respectively. 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 63.78, 19.39, 8.26 & 10.43 µg/m³ respectively. All above the values were found within the Limits. Results given in **Annexure-6**.

5.1 FUGITIVE DUST CONCENTRATION

Fortnightly fugitive air quality was monitored all plant area SPM value minimum 236.51 $\mu\text{g}/\text{m}^3$, maximum value 1957.06 $\mu\text{g}/\text{m}^3$ and average value 1160.22 $\mu\text{g}/\text{m}^3$. The Fugitive air quality 1st & 2nd Fortnight Results given in **Annexure-7 to Annexure-10**.

5.2 STACK MONITORING

Stack emission level was monitored all chimneys' PM values (mg/Nm^3) 1st and 2ndFortnight Minimum Value 5.79 mg/Nm^3 , Maximum Value 66.52 mg/Nm^3 & Average Value 30.54 mg/Nm^3 . 1st & 2nd 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 46.2 to 72. dB (A) and 44.8 to 65.8 dB (A). The noise level status is given in **Annexure-38 to Annexure-39**.

5.4 Water Sample Collected at 14 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 CONCLUSION

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)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

ANNEXURE-01
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 : MARCH-2024
 Location : A1-Danapur Village
 Duration of Monitoring : 24 Hour
 Report Issued Date : 05.04.2024
 Report Number : ULR-TC53232400002405F

RESULTS

Parameters			PM ₁₀ [µg/m ³]		PM _{2.5} [µg/m ³]		SO ₂ [µg/m ³]		NO ₂ [µg/m ³]	
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS :5182: (Part-6) 2006 (RF-2017)	
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
04.03.2024	05.03.2024	5707	87.70	100	35.84	60	12.37	80	14.31	80
05.03.2024	06.03.2024	5717	83.53		27.66		11.09		15.29	
11.03.2024	12.03.2024	5875	81.12		39.41		11.72		11.54	
12.03.2024	13.03.2024	5913	82.27		20.93		7.83		8.11	
18.03.2024	19.03.2024	5983	86.79		33.47		6.92		9.36	
19.03.2024	20.03.2024	6005	86.91		17.13		6.06		7.05	
25.03.2024	26.03.2024	6135	87.37		22.66		6.05		10.52	
26.03.2024	27.03.2024	6163	77.10		27.17		7.73		13.16	
Average			84.10				28.03			

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. / 197-C-21	PM2.5/PM10 Sampler / 158-K-20
4	Calibration Date	08.07.2023	28.03.2024
5	Calibration Due Date	24.07.2024	27.03.2025

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



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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-01
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/RO18
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : MARCH-2024
 Location : A1-Danapur Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 05.04.2024

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	04.03.2024	5707	0.12	4.0
2	05.03.2024	5717	0.14	
3	11.03.2024	5875	<0.01	
4	12.03.2024	5913	0.12	
5	18.03.2024	5983	0.14	
6	19.03.2024	6005	<0.01	
7	25.03.2024	6135	<0.01	
8	26.03.2024	6163	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 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
- Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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 : MARCH -2024
 Location : A2-Mariyammanahalli Village
 Duration of Monitoring : 24 Hour
 Report Issued Date : 05.04.2024
 Report Number : ULR-TC53232400002406F

RESULTS

Parameters			PM ₁₀ [µg/m ³]		PM _{2.5} [µg/m ³]		SO ₂ [µg/m ³]		NO ₂ [µg/m ³]					
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS :5182: (Part-6) 2006 (RF-2017)					
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD				
04.03.2024	05.03.2024	5708	71.52	100	22.23	60	11.77	80	14.80	80				
05.03.2024	06.03.2024	5739	65.99		26.50		8.28		11.66					
11.03.2024	12.03.2024	5876	64.30		21.72		12.71		14.35					
12.03.2024	13.03.2024	5914	73.56		23.83		9.91		10.64					
18.03.2024	19.03.2024	5984	78.01		23.40		10.15		12.19					
19.03.2024	20.03.2024	6006	71.98		23.84		9.04		9.71					
25.03.2024	26.03.2024	6137	72.46		25.83		11.14		13.90					
26.03.2024	27.03.2024	6164	82.90		23.78		8.80		10.97					
Average			72.59				23.89				11.17		12.28	

SL NO	INSTRUMENT DETAILS		
1	Instrument Name	Respirable Dust Sampler (RDS)	Fine Particulate Sampler (FPS)
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	28.03.2024
5	Calibration Due Date	14.05.2024	27.03.2025

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

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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-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/RO18
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : MARCH-2024
 Location : A2-Mariyammanahalli Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 05.04.2024

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	04.03.2024	5708	0.10	4.0
2	05.03.2024	5739	0.12	
3	11.03.2024	5876	0.16	
4	12.03.2024	5914	0.14	
5	18.03.2024	5984	0.12	
6	19.03.2024	6006	0.16	
7	25.03.2024	6137	0.12	
8	26.03.2024	6164	0.16	

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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-03
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 : **MARCH-2024**
 Location : **A3-Hanumanahalli Village**
 Duration of Monitoring : 24 Hour
 Report Issued Date : **05.04.2024**
 Report Number : **ULR-TC532324000002408F**

RESULTS

Parameters			PM ₁₀ [µg/m ³]		PM _{2.5} [µg/m ³]		SO ₂ [µg/m ³]		NO ₂ [µg/m ³]					
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS :5182: (Part-6) 2006 (RF-2017)					
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD				
04.03.2024	05.03.2024	5710	87.34	100	30.30	60	9.96	80	13.60	80				
05.03.2024	06.03.2024	5741	72.90		26.19		10.09		12.40					
07.03.2024	08.03.2024	5778	84.28		32.53		12.65		16.12					
08.03.2024	09.03.2024	5789	68.78		23.30		9.64		13.40					
11.03.2024	12.03.2024	5878	76.90		24.22		9.68		15.39					
12.03.2024	13.03.2024	5916	86.34		20.05		9.55		13.28					
21.03.2024	22.03.2024	6045	80.06		18.43		11.29		11.99					
25.03.2024	26.03.2024	6136	72.78		20.24		11.75		12.76					
Average			78.67				24.40				10.58		13.62	

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. / 197-C-21	PM2.5 / PM10 Sampler / 160-K-20
4	Calibration Date	08.07.2023	28.03.2024
5	Calibration Due Date	24.07.2024	27.03.2025

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

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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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-03
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 : CO Analyser
 Month : **MARCH-2024**
 Location : **A3-Hanumanahalli Village**
 Duration of Monitoring : 1 Hour
 Report Issued Date : **05.04.2024**

RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	04.03.2024	5710	0.12	4.0
2	05.03.2024	5741	0.14	
3	07.03.2024	5778	0.16	
4	08.03.2024	5789	0.12	
5	11.03.2024	5878	0.12	
6	12.03.2024	5916	0.14	
7	21.03.2024	6045	<0.01	
8	25.03.2024	6136	<0.01	

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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-04
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 : **MARCH-2024**
 Location : **A4-Galemmanagudi Village**
 Duration of Monitoring : 24 Hour
 Report Issue Date : **05.04.2024**
 Report Number : **ULR-TC53232400002407F**

RESULTS

Parameters			PM ₁₀ [µg/m ³]		PM _{2.5} [µg/m ³]		SO ₂ [µg/m ³]		NO ₂ [µg/m ³]					
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS :5182: (Part-6) 2006 (RF-2017)					
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD				
04.03.2024	05.03.2024	5709	79.09	100	20.89	60	8.50	80	12.62	80				
05.03.2024	06.03.2024	5736	76.90		23.35		8.01		9.64					
11.03.2024	12.03.2024	5877	68.98		24.23		11.42		15.58					
12.03.2024	13.03.2024	5915	78.58		24.78		10.17		15.06					
18.03.2024	19.03.2024	5985	82.63		23.77		8.18		10.38					
19.03.2024	20.03.2024	6007	85.31		23.93		8.83		11.71					
23.03.2024	24.03.2024	6106	84.67		23.85		8.91		11.11					
25.03.2024	26.03.2024	6138	63.12		24.97		10.32		12.27					
Average			77.41				23.72				9.29		12.30	

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./198-C-21	PM2.5/PM10 Sampler / 158-K-20
4	Calibration Date	08.07.2023	28.03.2024
5	Calibration Due Date	07.07.2024	27.03.2025

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
**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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-04
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 : CO Analyser
 Month : MARCH-2024
 Location : A4-Galemmanagudi Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 05.04.2024

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	04.03.2024	5709	0.12	4.0
2	05.03.2024	5736	0.16	
3	11.03.2024	5877	<0.01	
4	12.03.2024	5915	0.14	
5	18.03.2024	5985	<0.01	
6	19.03.2024	6007	0.12	
7	23.03.2024	6106	0.16	
8	25.03.2024	6138	<0.01	

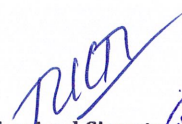
Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour)

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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-05
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 : **MARCH-2024**
 Location : **A5-G Nagalapura Village**
 Duration of Monitoring : 24 Hour
 Report Issue Date : **05.04.2024**
 Report Number : **ULR-TC53232400002409F**

RESULTS

Parameters			PM10 [µg/m3]	PM2.5 [µg/m3]	SO2 [µg/m3]	NO2 [µg/m3]				
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)	USEPA 2001 Gravimetric Method	IS:5182: 2001 (Part-2) (RF-2017)	IS :5182: (Part-6) 2006 (RF-2017)				
Date of Sampling	Date of Received Sample	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
04.03.2024	05.03.2024	5711	69.51	100	18.35	60	8.88	80	10.24	80
05.03.2024	06.03.2024	5737	76.44		22.49		8.30		10.26	
11.03.2024	12.03.2024	5879	60.60		24.06		12.58		11.66	
12.03.2024	13.03.2024	5917	65.47		20.87		10.08		11.93	
18.03.2024	19.03.2024	5986	56.76		15.92		11.39		13.06	
19.03.2024	20.03.2024	6008	66.17		14.84		8.72		11.30	
23.03.2024	24.03.2024	6105	70.97		15.07		9.02		12.67	
25.03.2024	26.03.2024	6139	62.51		16.57		7.23		9.16	
Average			66.05		18.52		9.52		11.28	

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. / 198-C-21	PM2.5 / PM10 Sampler / 159-K-20
4	Calibration Date	08.07.2023	28.03.2024
5	Calibration Due Date	24.07.2024	27.03.2025

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

**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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-05
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 : CO Analyser
 Month : MARCH-2024
 Location : A5- G Nagalapura Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 05.04.2024

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	04.03.2024	5711	<0.01	4.0
2	05.03.2024	5737	<0.01	
3	11.03.2024	5879	<0.01	
4	12.03.2024	5917	0.10	
5	18.03.2024	5986	<0.01	
6	19.03.2024	6008	<0.01	
7	23.03.2024	6105	<0.01	
8	25.03.2024	6139	<0.01	


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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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 : **MARCH-2024**
 Location : **A6-Gunda Tanda Village**
 Duration of Monitoring : 24 Hour
 Report Issue Date : **05.04.2024**
 Report Number : **ULR-TC53232400002410F**

RESULTS

Parameters			PM ₁₀ [µg/m ³]		PM _{2.5} [µg/m ³]		SO ₂ [µg/m ³]		NO ₂ [µg/m ³]	
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS :5182: (Part-6) 2006 (RF-2017)	
Date of Sampling	Date of Received Sample	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
04.03.2024	05.03.2024	5712	62.20	100	18.38	60	0.96	80	1.16	80
05.03.2024	06.03.2024	5743	66.02		16.55		10.21		10.18	
11.03.2024	12.03.2024	5880	70.41		19.12		8.31		9.44	
14.03.2024	15.03.2024	5935	68.51		29.72		9.78		12.26	
16.03.2024	17.03.2024	5962	52.87		15.39		8.25		10.69	
18.03.2024	19.03.2024	5987	64.94		19.22		9.75		12.35	
19.03.2024	20.03.2024	6009	58.26		19.97		11.17		13.56	
23.03.2024	24.03.2024	6107	67.09		16.79		7.61		13.78	
Average			63.78				19.39			

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	28.03.2024
5	Calibration Due Date	07.07.2024	27.03.2025

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

**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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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-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 : CO Analyser
 Month : **MARCH-2024**
 Location : **A6-Gunda Tanda Village**
 Duration of Monitoring : 1 Hour
 Report Issued Date : **05.04.2024**


RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	04.03.2024	5712	<0.01	4.0
2	05.03.2024	5743	<0.01	
3	11.03.2024	5880	<0.01	
4	14.03.2024	5935	<0.01	
5	16.03.2024	5962	<0.01	
6	18.03.2024	5987	<0.01	
7	19.03.2024	6009	<0.01	
8	23.03.2024	6107	<0.01	

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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-07
GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY MONITORING DATA

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	:	RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)
5	Month	:	MARCH-2024(1st Fort Night)
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Method adopted	:	IS 5182 (Part 4): 1999 RA 2014
9	Report Issued Date	:	05.04.2024
10	Report Number	:	GEMS/BMM/FM/2023-24/2438

RESULTS

Sl. No.	Location / Plant	Sample Code	Date Of Monitoring	Date Of Sample Receipt	SPM ($\mu\text{g}/\text{m}^3$)	Standard
I. Beneficiation Plant-1						
1.	Main Canteen	5783	08.03.2024	09.03.2024	283.10	2000
2.	Main Crusher	5788	08.03.2024	09.03.2024	1847.90	2000
3.	Iron Ore Screen	5782	08.03.2024	09.03.2024	1931.64	2000
II. Pellet Plant-I						
4.	Near Pellet Plant	5821	09.03.2024	11.03.2024	1547.23	2000
5.	Annual Cooler Pellet Discharge bin	5822	09.03.2024	11.03.2024	1105.88	2000
6.	Pellet Stock Yard	5823	09.03.2024	11.03.2024	1777.80	2000
III. Sponge Iron Division-1 (kiln 1 & 2)						
7.	Control Room SID-1	5906	09.03.2024	11.03.2024	1900.87	2000
8.	Near Product bin	5907	12.03.2024	13.03.2024	1082.57	2000
9.	Coal Feeding Area	5908	09.03.2024	11.03.2024	1230.76	2000
IV. Induction Furnace & Rolling Mill - 1						
10.	IF Office	5868	11.03.2024	12.03.2024	810.50	2000
11.	TMT Stock Yard	5869	11.03.2024	12.03.2024	1016.54	2000
12.	RML Gasifier	5870	11.03.2024	12.03.2024	918.88	2000
V. Power Plant 25 MW-1						
13.	25 MW ESP	5926	13.03.2024	14.03.2024	789.48	2000
14.	25 MW ACC	5871	11.03.2024	12.03.2024	520.64	2000
VI. Site Services						
15.	PGP- coal handling system	5824	09.03.2024	11.03.2024	953.73	2000
16.	IF Slag Crusher	5909	12.03.2024	13.03.2024	821.07	2000
17.	Main Gate	5927	13.03.2024	14.03.2024	236.51	2000
18.	Fly ash Dump	5772	07.03.2024	08.03.2024	738.40	2000

Note: SPM- Suspended Particulate matter. ($\mu\text{g}/\text{m}^3$), 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 Instruments/ GTI-151	Greentech Instruments/ GTI-151	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	28.03.2024	28.03.2024	28.03.2024	28.03.2024	28.03.2024
5	Calibration Due Date	27.03.2025	27.03.2025	27.03.2025	27.03.2025	27.03.2025

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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-08
GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY MONITORING DATA

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	:	RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)
5	Month	:	FEBRUARY-2024(2nd Fort Night)
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Method adopted	:	IS 5182 (Part 4)1999 RA 2014
9	Report Issued Date	:	06.03.2024
10	Report Number	:	GEMS/BMM/FM/2023-24/2560

RESULTS

Sl. NO.	Location / Plant	Sample Code	Date Of Monitoring	Date Of Sample Receipt	SPM ($\mu\text{g}/\text{m}^3$)	Standard
I. Beneficiation Plant-1						
1.	Main Canteen	6097	23.03.2024	25.03.2024	1476.83	2000
2.	Main Crusher	6108	23.03.2024	25.03.2024	1914.92	2000
3.	Iron Ore Screen	6096	23.03.2024	25.03.2024	1143.63	2000
II. Pellet Plant-I						
4.	Near Pellet Plant	6127	25.03.2024	26.03.2024	1934.0	2000
5.	Annual Cooler Pellet Discharge bin	6128	25.03.2024	26.03.2024	410.98	2000
6.	Pellet Stock Yard	6129	25.03.2024	26.03.2024	707.14	2000
III. Sponge Iron Division-1(kiln 1 & 2)						
7.	Control Room SID-I	6192	26.03.2024	27.03.2024	724.84	2000
8.	Near Product bin	6193	26.03.2024	27.03.2024	990.74	2000
9.	Coal Feeding Area	6194	26.03.2024	27.03.2024	1396.22	2000
IV. Induction Furnace & Rolling Mill						
10.	IF Office	6149	27.03.2024	28.03.2024	1928.41	2000
11.	TMT Stock Yard	6150	27.03.2024	28.03.2024	1315.60	2000
12.	RML Gasifier	6151	27.03.2024	28.03.2024	882.21	2000
V. Power Plant 25 MW-1						
13.	25 MW ESP	6195	27.03.2024	28.03.2024	849.54	2000
14.	25 MW ACC	6206	28.03.2024	29.03.2024	659.50	2000
VI. Site Services						
15.	PGP- Coal handling system	6130	25.03.2024	26.03.2024	255.74	2000
16.	IF Slag Crusher	6196	27.03.2024	28.03.2024	303.90	2000
17.	Main Gate	6207	28.03.2024	29.03.2024	752.28	2000
18.	Fly ash Dump	6070	22.03.2024	23.03.2024	497.45	2000

Note: SPM - Suspended Particulate matter ($\mu\text{g}/\text{m}^3$), 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 Instruments/ GTI-151	Greentech Instruments/ GTI-151	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	28.03.2024	28.03.2024	28.03.2024	28.03.2024	28.03.2024
5	Calibration Due Date	27.03.2025	27.03.2025	27.03.2025	27.03.2025	27.03.2025

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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-09
GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING

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	:	RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)
5	Month	:	MARCH-2024(1ST Fort Night)
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Method adopted	:	IS 5182 (Part 4): 1999 RA 2014
9	Report Issued Date	:	05.04.2024
10	Report Number	:	GEMS/BMM/FM/2023-24/2367

RESULTS

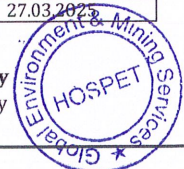
Sl. No.	Location / Plant	Sample Code	Date Of Monitoring	Date Of Sample Receipt	SPM ($\mu\text{g}/\text{m}^3$)	Standard
I. Beneficiation Plant-II						
1.	Ball Mill Area (Zero Meter)	5654	01.03.2024	02.03.2024	522.33	2000
2.	Iron Ore Hopper (Near Monsoon Shed)	5656	01.03.2024	02.03.2024	1365.92	2000
3.	Concentrate Thickner	5655	01.03.2024	02.03.2024	851.44	2000
II. Pellet Plant						
4.	PR-6	5657	01.03.2024	02.03.2024	873.71	2000
5.	Annual Cooler Pellet Discharge bin	5675	02.03.2024	04.03.2024	1328.43	2000
6.	Additive Grinding Building	5676	02.03.2024	04.03.2024	1515.55	2000
III. Sponge Iron Division -2 (Kiln 1 & 2)						
7.	Control room	5677	02.03.2024	04.03.2024	618.32	2000
8.	Near Weigh bridge (dispatch)	5678	02.03.2024	04.03.2024	1110.08	2000
9.	Pellet Storage bin	5702	04.03.2024	05.03.2024	1809.96	2000
10.	Transfer House area	5700	04.03.2024	05.03.2024	1658.94	2000
11.	Production Separation Bin-PSB	5701	04.03.2024	05.03.2024	1924.43	2000
IV. Sponge Iron Division -2 (Kiln 3 & 4)						
12.	Near Control room	5727	05.03.2024	06.03.2024	1662.15	2000
13.	Near Coal Crusher	5729	05.03.2024	06.03.2024	1898.63	2000
14.	Near Product bin	5728	05.03.2024	06.03.2024	1884.38	2000
15.	Coal Dryer	5730	05.03.2024	06.03.2024	694.79	2000
V. Wagon Tipper/RMHS						
16.	Near Tipping point	5703	04.03.2024	05.03.2024	1821.11	2000
17.	Monsoon Shed (CPU)	5755	06.03.2024	07.03.2024	576.59	2000
18.	MCC Room (2 nd Gate)	5756	06.03.2024	07.03.2024	407.00	2000
VI. Power Plant-70 MW						
19.	70MW-DM Plant (Near R.O. Plant)	5780	08.03.2024	09.03.2024	574.81	2000
20.	2 nd gate weigh bridge Near Coal Screen	5757	06.03.2024	07.03.2024	1213.30	2000
21.	CFBC boiler	5758	06.03.2024	07.03.2024	913.19	2000
VII. 2X70MW Power Plant						
22.	Near Boiler	5769	07.03.2024	08.03.2024	1615.56	2000
23.	Near Coal storage Shed	5770	07.03.2024	08.03.2024	799.54	2000
24.	Dolochar Processing Area	5771	07.03.2024	08.03.2024	512.68	2000

Note: SPM -Suspended Particulate matter ($\mu\text{g}/\text{m}^3$), 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 Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151
3	Serial No	RDS / 241-DTC-2020	RDS / 243-DTI-2020	RDS / 244-DTI-2020	RDS / 193-DTH-2019	RDS / 197-DTH-2019
4	Calibration Date	28.03.2024	28.03.2024	28.03.2024	28.03.2024	28.03.2024
5	Calibration Due Date	27.03.2025	27.03.2025	27.03.2025	27.03.2025	27.03.2025

Priyanka B M
Analysed By
Priyanka B M
Chemist

K. Ramakrishna Reddy
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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-10 GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING

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	:	RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)
5	Month	:	MARCH-2024(2ND Fort Night)
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Method adopted	:	IS 5182 (Part 4): 1999 RA 2014
9	Report Issued Date	:	05.04.2024
10	Report Number	:	GEMS/BMM/FM/2023-24/2519

RESULTS

Sl. No.	Location / Plant	Sample Code	Date Of Monitoring	Date Of Sample Receipt	SPM ($\mu\text{g}/\text{m}^3$)	Standard
I. Beneficiation Plant-II						
1.	Ball Mill Area (Zero Meter)	5953	16.03.2024	18.03.2024	267.41	2000
2.	Iron Ore Hopper (Near Monsoon Shed)	5955	16.03.2024	18.03.2024	1512.76	2000
3.	Concentrate Thickner	5954	16.03.2024	18.03.2024	1882.77	2000
II. Pellet Plant-I						
4.	PR-6	5956	16.03.2024	18.03.2024	563.26	2000
5.	Annual Cooler Pellet Discharge bin	5974	18.03.2024	19.03.2024	821.63	2000
6.	Additive Grinding Building	5975	18.03.2024	19.03.2024	1944.09	2000
III. Sponge Iron Division -2 (Kiln 1 & 2)						
7.	Control room	5996	19.03.2024	20.03.2024	1889.73	2000
8.	Near Weigh bridge (dispatch)	5997	19.03.2024	20.03.2024	1898.15	2000
9.	Pellet Storage bin	5978	18.03.2024	19.03.2024	1943.66	2000
10.	Transfer House area	5976	18.03.2024	19.03.2024	1957.06	2000
11.	Production Separation Bin-PSB	5977	20.03.2024	21.03.2024	1217.96	2000
IV. Sponge Iron Division -2 (Kiln 3 & 4)						
12.	Near Control room	5996	19.03.2024	20.03.2024	1793.51	2000
13.	Near Coal Crusher	6023	20.03.2024	21.03.2024	1921.42	2000
14.	Near Product bin	6022	20.03.2024	21.03.2024	1601.28	2000
15.	Coal Drier	6024	20.03.2024	21.03.2024	1191.35	2000
V. Wagon Tipper/RMHS						
16.	Near Tipping point	6025	20.03.2024	21.03.2024	1772.45	2000
17.	Monsoon Shed (CPU)	6026	21.03.2024	22.03.2024	1705.10	2000
18.	MCC Room (2 nd Gate)	6037	21.03.2024	22.03.2024	818.86	2000
VI. Power Plant-70 MW						
19.	70MW-DM Plant (Near R.O. Plant)	6038	21.03.2024	22.03.2024	533.48	2000
20.	2 nd gateweigh bridge Near Coal Screen	6094	23.03.2024	25.03.2024	1329.21	2000
21.	CFBC boiler	6039	21.03.2024	22.03.2024	550.34	2000
VII. 2X70MW Power Plant						
22.	Near Boiler	6067	22.03.2024	23.03.2024	906.00	2000
23.	Near Coal storage Shed	6068	22.03.2024	23.03.2024	771.02	2000
24.	CPP Dolochar Process Area	6069	22.03.2024	23.03.2024	856.04	2000

Note: SPM -Suspended Particulate matter ($\mu\text{g}/\text{m}^3$), INFERENCE: The Measured Values are within the limits.

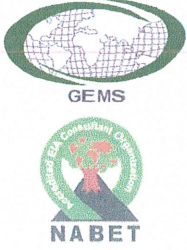
SL NO	INSTRUMENT DETAILS	GEMS-01	GEMS-02	GEMS-03	GEMS-04	GEMS-05
1	Instrument Name	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler
2	Make & Model	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ 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	28.03.2024	28.03.2024	28.03.2024	28.03.2024	28.03.2024
5	Calibration Due Date	27.03.2025	27.03.2025	27.03.2025	27.03.2025	27.03.2025

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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-11
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: 28.03.2024
Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Sample Type | : | Stack Monitoring |
| 9 | Sampling Location | : | Pellet Plant-1 ESP |
| 10 | Month of Sampling | : | MARCH-2024 |
| 11 | Date of Sample Received | : | 02.03.2024 & 18.03.2024 |
| 12 | Date of Sample Analysis | : | 04.03.2024 & 19.03.2024 |
| 13 | Date of Sample Analysis completion | : | 05.03.2024 & 20.03.2024 |
| 14 | Report Issued Date | : | 05.04.2024 |
| 15 | Report Number | : | ULR-TC53232400002387F |

Stack Details

- | | | |
|---|----------------------|--------------------|
| 1 | Fuel Used | Coal & furnace oil |
| 2 | Stack Height (mtr) | 100.0 |
| 3 | Stack Diameter (mtr) | 4.4 |

Emission Details

Sl. No.	Parameters	Method	Unit	Results		Permissible Limit
				02.03.2024	18.03.2024	
				Date of Monitoring Sample Code	5681	5979
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	30	32	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	74	68	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	5.09	5.14	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr	278662	281409	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr	239280	245826	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	36.74	38.02	50
7	Sulphur Dioxide	IS: 11255 (Part 2); (RA 2014)	mg/Nm ³	184.0	391.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	38.0	94.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.029	0.022	NS

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



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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-12
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: 28.03.2024 Calibration Due Date: 27.03.2025
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Sampling Location	:	2X110 TPD Sponge iron plant Kiln 1 & 2
10	Month of Sampling	:	MARCH-2024
11	Date of Sample Received	:	08.03.2024 & 23.03.2024
12	Date of Sample Analysis	:	09.03.2024 & 25.03.2024
13	Date of Sample Analysis completion	:	11.02.2024 & 26.03.2024
14	Report Issued Date	:	06.03.2024
15	Report Number	:	ULR-TC532324000002440F

Stack Details

1	Fuel Used	Coal
2	Stack Height (mtr)	60.0
3	Stack Diameter (mtr)	2.00

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
				08.03.2024	23.03.2024	
	Date of Monitoring					
	Sample Code			5786	6100	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	31	31	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	176	178	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.35	6.52	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr	71860	73773	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr	47681	48733	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	23.90	24.74	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³	168.0	152.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	53.0	49.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.342	0.337	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**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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-13
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: 28.03.2024
Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Sample Type | : | Stack Monitoring |
| 9 | Month of Sampling | : | MARCH-2024(1st Fort Night) |
| 10 | Date of Sample Received | : | 14.03.2024 |
| 11 | Date of Sample Analysis | : | 15.03.2024 |
| 12 | Date of Sample Analysis completion | : | 16.03.2024 |
| 13 | Report Issued Date | : | 05.04.2024 |
| 14 | Report Number | : | ULR-TC532324000002510F |

Sl. 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 ³	KSPCB Std mg/Nm ³
Induction Furnance 1 & 2											
1	Induction Furnance 1	14.03.2024	5933	Electric Power	32	42	5.32	30	1.0	5.79	150
2	Induction Furnance 2	14.03.2024	5934		36	45	5.29	30	1.0	10.60	150

Sl. No	Induction Furnance 1 & 2	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
1	Induction Furnance 1	21680	20488	-
2	Induction Furnance 2	25302	23635	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-14
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, Hosapete
4	Particulars of sample collected	:	Vayubodhak Stack sampler/ VBSS-2 Sl. No: Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Sampling Location	:	Rolling mill reheating furnace
10	Month of Sampling	:	MARCH-2024
11	Date of Sample Received	:	07.03.2024 & 22.03.2024
12	Date of Sample Analysis	:	08.03.2024 & 23.03.2024
13	Date of Sample Analysis completion	:	09.02.2024 & 25.03.2024
14	Report Issued Date	:	05.04.2024
15	Report Number	:	ULR-TC532324000002435F

Stack Details

1	Fuel Used	Coal
2	Stack Height (mtr)	30.0
3	Stack Diameter (mtr)	0.8

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
				07.03.2024	22.03.2024	
	Date of Monitoring			5775	6074	
	Sample Code					
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	30	31	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	384	391	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	7.82	8.06	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr	14156	14593	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr	6419.9	6548.4	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	11.94	14.50	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³	34.0	37.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	371.0	394.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.062	0.078	NS

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



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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-15
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, Hosapete
4	Particulars of sample collected	:	Vayubodhak Stack sampler/ VBSS-2 Sl. No: Stack Monitoring Kit/ 032308
5	Instrument Details	:	Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025
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	:	MARCH-2024
11	Date of Sample Received	:	-
12	Date of Sample Analysis	:	-
13	Date of Sample Analysis completion	:	-
14	Report Issued Date	:	-
15	Report Number	:	-

Stack Details

1	Fuel Used	Coal
2	Stack Height (mtr)	65.0
3	Stack Diameter (mtr)	2.5

Emission Details

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

Note: NS- Not Specified. RA: Reaffirmed,

K. Ramakrishna Reddy
Authorized 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-16
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: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **MARCH-2024(1st Fort Night)**
- 10 Date of Sample Received : 15.03.2024
- 11 Date of Sample Analysis : 16.03.2024
- 12 Date of Sample Analysis completion : 18.03.2024
- 13 Report Issued Date : **05.04.2024**
- 14 Report Number : **ULR-TC532324000002512F**

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
Beneficiation Plant -I											
1	Iron Ore dump hopper	15.03.2024	5939	-	31	37	4.58	25	0.40	16.26	50
2	Iron Ore Screen bin	15.03.2024	5940	-	33	38	4.97	30	0.40	15.19	50

Sl. No	Beneficiation Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
1	Iron Ore dump hopper	2075	1994	-
2	Iron Ore Screen bin	2250	2154	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-17
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: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **MARCH-2024(1st Fort Night)**
- 10 Date of Sample Received : 13.03.2024 & 14.03.2024
- 11 Date of Sample Analysis : 14.03.2024 & 15.03.2024
- 12 Date of Sample Analysis completion : 15.03.2024 & 16.03.2024
- 13 Report Issued Date : **06.03.2024**
- 14 Report Number : **ULR-TC53232400002509F**

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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
RMHS											
3	Screen, Coal Crusher (CPU)	13.03.2024	5929	-	36	41	5.23	3.0	0.30	36.93	50
4	Main Crusher	14.03.2024	5931	-	30	36	4.44	35	0.50	12.93	50

SI. No	Beneficiation Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
3	Screen, Coal Crusher (CPU)	33312	31535	-
4	Main Crusher	3140	3027	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-18
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: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **MARCH-2024(1st Fort Night)**
- 10 Date of Sample Received : 02.03.2024, 04.03.2024, 04.03.2024 & 05.03.2024
- 11 Date of Sample Analysis : 04.03.2024, 05.03.2024, 05.03.2024 & 06.03.2024
- 12 Date of Sample Analysis completion : 05.03.2024, 06.03.2024, 06.03.2024 & 06.03.2024
- 13 Report Issued Date : **05.04.2024**
- 14 Report Number : **ULR-TC532324000002388F**

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
Pellet Plant -I											
5	AGB Main Bag Filter	02.03.2024	5682	-	35	39	4.77	6.5	0.60	27.96	50
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	04.03.2024	5705	-	33	37	4.88	3.0	0.30	24.51	50
7	Bentonite Powder bin top bag filter	04.03.2024	5706	-	34	38	4.66	3.0	0.30	28.25	50
8	H-4 Conveyor discharge bag filter	Shutdown	-	-	-	-	-	7.0	0.50	-	50
9	P-1 Bag Filter	05.03.2024	5733	-	33	42	5.06	7.0	0.50	32.94	50

Sl. No	Pellet Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
5	AGB Main Bag Filter	4855	4620	-
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	1242	1191	-
7	Bentonite Powder bin top bag filter	1188	1135	-
8	H-4 Conveyor discharge bag filter	-	-	-
9	P-1 Bag Filter	3577	3375	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/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: 28.03.2024
Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Sample Type | : | Stack Monitoring |
| 9 | Month of Sampling | : | MARCH-2024(1st Fort Night) |
| 10 | Date of Sample Received | : | 12.03.2024 & 13.03.2024 |
| 11 | Date of Sample Analysis | : | 13.03.2024 & 14.03.2024 |
| 12 | Date of Sample Analysis completion | : | 14.03.2024 & 15.03.2024 |
| 13 | Report Issued Date | : | 05.04.2024 |
| 14 | Report Number | : | ULR-TC532324000002504F |

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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
2 X 100 TPD Sponge Iron Kiln 1 & 2											
10	Cooler-1 Discharge & Blending Chute	12.03.2024	5911	---	34	38	4.72	30	1.20	29.13	50
11	Cooler-2 Discharge	12.03.2024	5912	---	36	39	4.83	30	1.20	31.57	50
12	Intermediate Bin & Blending	13.03.2024	5928	---	31	37	4.81	30	1.20	32.12	50
13	Product House	13.03.2024	5930	---	33	39	4.87	30	1.20	35.15	50

SI. No	2 X 100 TPD Sponge Iron Kiln 1 & 2	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
10	Cooler-1 Discharge & Blending Chute	19200	18385	-
11	Cooler-2 Discharge	19673	18743	-
12	Intermediate Bin & Blending	19588	18827	-
13	Product House	19818	18914	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **MARCH-2024(2nd Fort Night)**
- 10 Date of Sample Received : 29.03.2024
- 11 Date of Sample Analysis : 30.03.2024
- 12 Date of Sample Analysis completion : 01.04.2024
- 13 Report Issued Date : **05.04.2024**
- 14 Report Number : **ULR-TC53232400002606F**

Sl. 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 ³	KSPCB Std mg/Nm ³
Induction Furnance 1 & 2											
1	Induction Furnance 1	29.03.2024	6212	Electric	30	44	5.40	30	1.0	6.47	50
2	Induction Furnance 2	29.03.2024	6213	Power	33	48	5.49	30	1.0	11.83	50

Sl. No	Induction Furnance 1 & 2	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
1	Induction Furnance 1	21981	20660	-
2	Induction Furnance 2	26246	24350	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-21
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, Hosapete
- 4 Particulars of sample collected : Vayubodhak Stack sampler/ **VBSS-2**
Sl. No: Stack Monitoring Kit/ **032308**
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **MARCH-2024(2nd Fort Night)**
- 10 Date of Sample Received : 28.03.2024
- 11 Date of Sample Analysis : 29.03.2024
- 12 Date of Sample Analysis completion : 30.03.2024
- 13 Report Issued Date : 05.04.2024
- 14 Report Number : **ULR-TC532324000002605F**

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
Beneficiation Plant											
1	Iron Ore dump hopper	28.03.2024	6197	---	33	38	4.65	25	0.40	22.40	50
2	Iron Ore Screen bin	28.03.2024	6198	---	37	40	4.90	30	0.40	20.35	50

Sl. No	Beneficiation Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
1	Iron Ore dump hopper	2103	2013	-
2	Iron Ore Screen bin	2219	2107	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/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: 28.03.2024
 Calibration Due Date: 27.03.2025
 6 Discipline : Chemical
 7 Group : Atmospheric Pollution
 8 Sample Type : Stack Monitoring
 9 Month of Sampling : **MARCH-2024(2nd Fort Night)**
 10 Date of Sample Received : 27.03.2024 & 28.03.2024
 11 Date of Sample Analysis : 28.03.2024 & 29.03.2024
 12 Date of Sample Analysis completion : 29.03.2024 & 30.03.2024
 13 Report Issued Date : **05.04.2024**
 14 Report Number : **ULR-TC532324000002604F**

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
RMHS											
3	Screen, Coal Crusher (CPU)	27.03.2024	6199	-	37	42	5.31	3.0	0.30	33.09	50
4	Main Crusher	28.03.2024	6200	-	32	37	4.29	35	0.50	13.76	50

Sl. No	Beneficiation Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
3	Screen, Coal Crusher (CPU)	33765	31825	-
4	Main Crusher	3034	2916	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-23
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: 28.03.2024
Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Sample Type | : | Stack Monitoring |
| 9 | Month of Sampling | : | MARCH-2024(2nd Fort Night) |
| 10 | Date of Sample Received | : | 18.03.2024, 19.03.2024, 19.03.2024 & 20.03.2024 |
| 11 | Date of Sample Analysis | : | 19.03.2024, 20.03.2024, 20.03.2024 & 21.03.2024 |
| 12 | Date of Sample Analysis completion | : | 20.03.2024, 21.03.2024, 21.03.2024 & 22.03.2024 |
| 13 | Report Issued Date | : | 05.04.2024 |
| 14 | Report Number | : | ULR-TC532324000002527F |

Sl. 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 ³	KSPCB Std mg/N m ³
Chimneys attached to Bag Filter (De dusting Units)											
Pellet Plant-I											
5	AGB Main Bag Filter	18.03.2024	5980	---	37	39	4.68	6.5	0.60	25.30	50
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	19.03.2024	6001	---	35	39	4.85	3.0	0.30	28.86	50
7	Bentonite Powder bin top bag filter	19.03.2024	6002	---	36	41	4.80	3.0	0.30	30.64	50
8	H-4 Conveyor discharge bag filter	-	-	---	-	-	-	7.0	0.50	-	50
9	P-1 Bag Filter	20.03.2024	6028	---	35	42	5.02	7.0	0.50	35.13	50

Sl. No	Pellet Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
5	AGB Main Bag Filter	4759	4530	-
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	1233	1175	-
7	Bentonite Powder bin top bag filter	1221	1155	-
8	H-4 Conveyor discharge bag filter	-	-	-
9	P-1 Bag Filter	3550	3350	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-24
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: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **MARCH-2024(2nd Fort Night)**
- 10 Date of Sample Received : 20.03.2024 & 27.03.2024
- 11 Date of Sample Analysis : 21.03.2024 & 28.03.2024
- 12 Date of Sample Analysis completion : 22.03.2024 & 29.03.2024
- 13 Report Issued Date : **05.04.2024**
- 14 Report Number : **ULR-TC532324000002536F**

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
2 X 100 TPD Sponge Iron Kiln 1 & 2											
10	Cooler-1 Discharge & Blending Chute	20.03.2024	6027	---	36	40	5.08	30	1.20	31.91	50
11	Cooler-2 Discharge	27.03.2024	6201	---	32	37	4.89	30	1.20	36.05	50
12	Intermediate Bin & Blending	27.03.2024	6202	---	33	38	4.73	30	1.20	35.14	50
13	Product House	27.03.2024	6203	---	38	41	4.99	30	1.20	36.01	50

Sl. No	2 X 100 TPD Sponge Iron Kiln 1 & 2	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
10	Cooler-1 Discharge & Blending Chute	20697	19643	-
11	Cooler-2 Discharge	19903	19130	-
12	Intermediate Bin & Blending	19254	18437	-
13	Product House	20320	19226	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/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: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Sampling Location : **Pellet Plant-2 ESP**
- 10 Month of Sampling : **MARCH-2024**
- 11 Date of Sample Received : 01.03.2024 & 16.03.2024
- 12 Date of Sample Analysis : 02.03.2024 & 18.03.2024
- 13 Date Sample Analysis Completion : 04.03.2024 & 19.03.2024
- 14 Report Issued Date : **05.04.2024**
- 15 Report Number : **ULR-TC532324000002521F**

Stack Details

- 1 Fuel Used Coal
- 2 Stack Height (mtr) 100
- 3 Stack Diameter (mtr) 4.4

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

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
				01.03.2024	16.03.2024	
	Date of Monitoring			5658	5957	
	Sample Code					
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	29	32	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	69	129	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	5.48	5.86	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	300210	149221	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	261484	110573	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	43.74	35.35	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	362.0	402.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005(RA 2017)	mg/Nm ³	98.0	107.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.024	0.028	1%

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

1. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-26
 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: 28.03.2024
Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Sample Type | : | Stack Monitoring |
| 9 | Sampling Location | : | SID Axis 3 & 4 |
| 10 | Month of Sampling | : | MARCH-2024 |
| 11 | Date of Sample Received | : | 04.03.2024 & 19.03.2024 |
| 12 | Date of Sample Analysis | : | 05.03.2024 & 20.03.2024 |
| 13 | Date Sample Analysis Completion | : | 06.03.2024 & 21.03.2024 |
| 14 | Report Issued Date | : | 05.04.2024 |
| 15 | Report Number | : | ULR-TC532324000002402F |

Stack Details

- | | | |
|---|----------------------|------|
| 1 | Fuel Used | Coal |
| 2 | Stack Height (mtr) | 70.0 |
| 3 | Stack Diameter (mtr) | 3.00 |

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
				04.03.2024	19.03.2024	
	Date of Monitoring Sample Code			5704	6000	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	29	33	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	127	129	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	5.79	5.89	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	147463	149898	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	109802	111104	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	32.76	35.22	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	568.0	599.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005(RA 2017)	mg/Nm ³	62.0	52.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.137	0.142	1%

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

Priyanka B M
 Analysed By
 Priyanka B M
 Chemist

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

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-27
 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: 28.03.2024 Calibration Due Date: 27.03.2025
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Sampling Location	:	SID Axis 5&6
10	Month of Sampling	:	MARCH-2024
11	Date of Sample Received	:	05.03.2024 & 20.03.2024
12	Date of Sample Analysis	:	06.03.2024 & 21.03.2024
13	Date Sample Analysis Completion	:	07.03.2024 & 22.03.2024
14	Report Issued Date	:	05.04.2024
15	Report Number	:	ULR-TC532324000002419F

Stack Details

1	Fuel Used	Coal
2	Stack Height (mtr)	70.0
3	Stack Diameter (mtr)	3.00

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
				05.03.2024	20.03.2024	
	Date of Monitoring					
	Sample Code					
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	5731	6026	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	30	32	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	131	134	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	5.96	5.83	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	151689	148337	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	111845	108596	-
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	29.37	30.58	50
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	948	984	NS
9	Carbon Monoxide	GEMS/SOP/69	%	110	146	NS
				0.085	0.074	1%

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

Priyanka B M
 Analysed By
 Priyanka B M
 Chemist

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

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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: 28.03.2024 Calibration Due Date: 27.03.2025
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Sampling Location	:	1X70 MW-CFBC Boiler ESP
10	Month of Sampling	:	MARCH-2024
11	Date of Sample Received	:	06.03.2024 & 21.03.2024
12	Date of Sample Analysis	:	07.03.2024 & 22.03.2024
13	Date Sample Analysis Completion	:	08.03.2024 & 23.03.2024
14	Report Issued Date	:	05.04.2024
15	Report Number	:	ULR-TC532324000002429F

Stack Details

1	Fuel Used	Coal
2	Stack Height (mtr)	70.0
3	Stack Diameter (mtr)	3.00

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
				06.03.2024	21.03.2024	
	Date of Monitoring			5759	6040	
	Sample Code					
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	30	30	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	122	126	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	5.74	5.97	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	146160	152091	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	110239	113562	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	34.49	38.01	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	276.0	247.0	600
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	42.0	35.0	300
9	Carbon Monoxide	GEMS/SOP/69	%	0.069	0.057	NS

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



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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-29
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: 28.03.2024 Calibration Due Date: 27.03.2025
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Sampling Location	:	2X70 MW CFBC Boiler ESP
10	Month of Sampling	:	MARCH-2024
11	Date of Sample Received	:	-
12	Date of Sample Analysis	:	-
13	Date Sample Analysis Completion	:	-
14	Report Issued Date	:	05.04.2024
15	Report Number	:	-

Stack Details

1	Fuel Used	Coal
2	Stack Height (mtr)	110.0
3	Stack Diameter (mtr)	8.00

Emission Details

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

Note: NS- Not Specified. RA: Reaffirmed

K. Ramakrishna Reddy
 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/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: 28.03.2024 Calibration Due Date: 27.03.2025
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	MARCH-2024 (1st Fort Night)
10	Date of Sample Received	:	-
11	Date of Sample Analysis	:	-
12	Date Sample Analysis Completion	:	-
13	Report Issued Date	:	05.04.2024
14	Report Number	:	-

RESULTS

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
Beneficiation Plant-2											
1	Iron Ore Cone Crusher	-	-	---	-	-	-	30	1.20	-	50
2	Iron Ore Screening	-	-	---	-	-	-	30	0.90	-	50

Sl. No	Beneficiation Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
1	Iron Ore Cone Crusher	-	-	-
2	Iron Ore Screening	-	-	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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.

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



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/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: 28.03.2024
Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Month of Sampling | : MARCH-2024 (1st Fort Night) |
| 10 | Date of Sample Received | : 01.03.2024 & 02.03.2024 |
| 11 | Date of Sample Analysis | : 02.03.2024 & 04.03.2024 |
| 12 | Date Sample Analysis Completion | : 04.03.2024 & 05.03.2024 |
| 13 | Report Issued Date | : 05.04.2024 |
| 14 | Report Number | : ULR-TC532324000002369F |

RESULTS

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
Pellet Plant-II											
3	AGB main bag Filter	01.03.2024	5659	---	34	38	4.60	6.5	0.5	28.35	50
4	Lime & Bentonite Powder bin top bag filter	01.03.2024	5660	---	35	39	5.00	3	0.35	30.88	50
5	AGB De dusting Bag Filter	-	-	---	-	-	-	6	0.6	-	50
6	Powder Coal main bag filter	-	-	---	-	-	-	6	0.6	-	50
7	RP-6 Conveyor bag Filter	-	-	---	-	-	-	6	0.3	-	50
8	Pellet discharge bin bag filter	02.03.2024	5680	---	35	42	5.06	20	0.5	35.56	50

Sl. No	Pellet Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
3	AGB main bag Filter	3301	3177	-
4	Lime & Bentonite Powder bin top bag filter	1587	1521	-
5	AGB De dusting Bag Filter	-	-	-
6	Powder Coal main bag filter	-	-	-
7	RP-6 Conveyor bag Filter	-	-	-
8	Pellet discharge bin bag filter	3577	3374	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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)

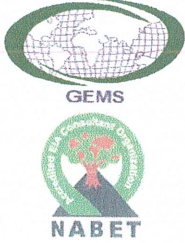
INFERENCE:

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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-32
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: 28.03.2024 Calibration Due Date: 27.03.2025
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	MARCH-2024 (1st Fort Night)
10	Date of Sample Received	:	05.03.2024, 06.03.2024, 07.03.2024, 08.03.2024 & 09.03.2024
11	Date of Sample Analysis	:	06.03.2024, 07.03.2024, 08.03.2024, 09.03.2024 & 11.03.2024
12	Date Sample Analysis Completion	:	07.03.2024, 08.03.2024, 09.03.2024, 11.03.2024 & 12.03.2024
13	Report Issued Date	:	05.04.2024
14	Report Number	:	ULR-TC532324000002420F

RESULTS

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
2 X 500 TPD Sponge Iron Kiln 1 & 2											
9	Cooler Discharge -1	05.03.2024	5732	---	34	39	4.97	30	1.2	30.25	50
10	Cooler Discharge -2	06.03.2024	5760	---	33	37	4.59	30	1.2	31.38	50
11	Coal stock house	06.03.2024	5761	---	34	39	4.70	30	1.2	10.64	50
12	PSB 1 System-1	07.03.2024	5773	---	33	38	4.59	30	1.2	35.43	50
13	PSB 1 System-2	07.03.2024	5774	---	34	39	4.91	30	1.2	37.14	50
14	PSB 2 System-1 MCC	08.03.2024	5784	---	36	40	5.04	30	1.2	35.58	50
15	PSB 1 System-2 Road	08.03.2024	5785	---	36	40	4.92	30	1.2	36.33	50
16	Junction House Old & New	09.03.2024	5825	---	31	37	5.09	30	1.2	36.87	50
17	Storage Bunker	09.03.2024	5826	---	33	38	4.86	30	1.2	33.40	50
18	Dispatch	-	-	---	-	-	-	30	1.2	-	50

Sl. No	2 X 500 TPD Sponge Iron Kiln 1 & 2	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
9	Cooler Discharge -1	20254	19282	-
10	Cooler Discharge -2	18702	17921	-
11	Coal stock house	19149	18222	-
12	PSB 1 System-1	18674	17840	-
13	PSB 1 System-2	19999	19034	-
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/Nm ³)	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.

Priyanka B M
Analysed By
Priyanka B M
Chemist

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



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-33
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: 28.03.2024
Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Sample Type | : | Stack Monitoring |
| 9 | Month of Sampling | : | MARCH-2024 (1st Fort Night) |
| 10 | Date of Sample Received | : | 09.03.2024, 11.03.2024 & 12.03.2024 |
| 11 | Date of Sample Analysis | : | 11.03.2024, 12.03.2024 & 13.03.2024 |
| 12 | Date Sample Analysis Completion | : | 12.03.2024, 13.03.2024 & 14.03.2024 |
| 13 | Report Issued Date | : | 05.04.2024 |
| 14 | Report Number | : | ULR-TC532324000002459F |

RESULTS

Sl. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/s	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
2X500 TPD Sponge Iron Kiln 3&4											
19	DE 3, Axis 3 CD	09.03.2024	5827	---	35	39	4.74	30	1.2	35.35	50
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	11.03.2024	5872	---	31	37	5.15	30	1.2	42.13	50
21	DE 8 & 12 I-Bin, (Stand By)	11.03.2024	5873	---	36	40	4.93	30	1.9	66.52	50
22	DE 9 & 10 PSB 1 & 2 Product Separation bin	11.03.2024	5874	---	36	41	5.18	30	1.9	36.87	50
23	Coal Dryer	12.03.2024	5910	---	32	43	4.96	27	1.2	38.42	50

Sl. No	2X500 TPD Sponge Iron Kiln 3&4	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
19	DE 3, Axis 3 CD	18079	17390	-
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	-

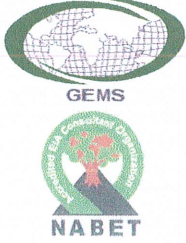
INFERENCE: The Measured Values are within the limits.

Analysed By
Priyanka B M
Chemist

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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/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: 28.03.2024
Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Sample Type | : | Stack Monitoring |
| 9 | Month of Sampling | : | MARCH-2024 (2nd Fort Night) |
| 10 | Date of Sample Received | : | 28.03.2024 |
| 11 | Date of Sample Analysis | : | 29.03.2024 |
| 12 | Date Sample Analysis Completion | : | 30.03.2024 |
| 13 | Report Issued Date | : | 05.04.2024 |
| 14 | Report Number | : | ULR-TC532324000002608F |

RESULTS

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
Beneficiation Plant-2											
1	Iron Ore Cone Crusher	28.03.2024	6208	---	38	41	5.14	30	1.20	23.60	50
2	Iron Ore Screening	-	-	---	-	-	-	30	0.90	-	50

Sl. No	Beneficiation Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
1	Iron Ore Cone Crusher	11774	11136	-
2	Iron Ore Screening	-	-	-

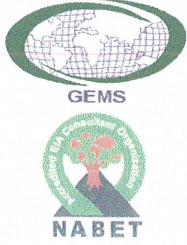
Parameter	Protocol
Particulate Matter (mg/Nm ³)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

INFERENCE: The Measured Values are within the limits.

TUCR
 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/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: 28.03.2024
Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Sample Type | : | Stack Monitoring |
| 9 | Month of Sampling | : | MARCH-2024 (2nd Fort Night) |
| 10 | Date of Sample Received | : | 16.03.2024 & 18.03.2024 |
| 11 | Date of Sample Analysis | : | 18.03.2024 & 19.03.2024 |
| 12 | Date Sample Analysis Completion | : | 19.03.2024 & 20.03.2024 |
| 13 | Report Issued Date | : | 05.04.2024 |
| 14 | Report Number | : | ULR-TC532324000002522F |

RESULTS

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
Pellet Plant											
3	AGB main bag Filter	16.03.2024	5958	---	35	39	4.44	6.5	0.5	29.59	50
4	Lime & Bentonite Powder bin top bag filter	16.03.2024	5959	---	36	40	4.87	3	0.35	30.87	50
5	AGB De dusting Bag Filter	-	-	---	-	-	-	6	0.6	-	50
6	Powder Coal main bagfilter	-	-	---	-	-	-	6	0.6	-	50
7	RP-6 Conveyor bag Filter	-	-	---	-	-	-	6	0.3	-	50
8	Pellet discharge bin bagfilter	18.03.2024	5978	---	36	44	5.14	20	0.5	34.83	50

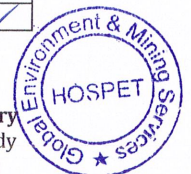
Sl. No	Pellet Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
3	AGB main bag Filter	4520	4304	-
4	Lime & Bentonite Powder bin top bag filter	1686	1600	-
5	AGB De dusting Bag Filter	-	-	-
6	Powder Coal main bagfilter	-	-	-
7	RP-6 Conveyor bag Filter	-	-	-
8	Pellet discharge bin bagfilter	3633	3406	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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: -

Priyanka B M
Analysed By
Priyanka B M
Chemist

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



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-36
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: 28.03.2024 Calibration Due Date: 27.03.2025
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	MARCH-2024 (2nd Fort Night)
10	Date of Sample Received	:	26.03.2024, 21.03.2024, 22.03.2024, 23.03.2024 & 25.03.2024
11	Date of Sample Analysis	:	27.03.2024, 22.03.2024, 23.03.2024, 25.03.2024 & 26.03.2024
12	Date Sample Analysis Completion	:	28.03.2024, 25.03.2024, 25.03.2024, 26.03.2024 & 27.03.2024
13	Report Issued Date	:	05.04.2024
14	Report Number	:	ULR-TC532324000002585F

RESULTS

Sl. 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 ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
2 X 500 TPD Sponge Iron Kiln 1 & 2											
9	Cooler Discharge -1	26.03.2024	6155	---	37	42	4.49	30	1.2	35.38	50
10	Cooler Discharge -2	21.03.2024	6041	---	34	38	4.45	30	1.2	33.45	50
11	Coal stock house	21.03.2024	6042	---	34	37	4.75	30	1.2	13.00	50
12	PSB 1 System-1	22.03.2024	6071	---	35	40	4.94	30	1.2	37.86	50
13	PSB 1 System-2	22.03.2024	6073	---	35	41	4.85	30	1.2	37.46	50
14	PSB 2 System-1 MCC	23.03.2024	6098	---	36	41	4.98	30	1.2	35.88	50
15	PSB 1 System-2 Road	23.03.2024	6099	---	36	42	5.12	30	1.2	36.53	50
16	Junction House Old & New	25.03.2024	6131	---	32	39	5.15	30	1.2	40.71	50
17	Storage Bunker	25.03.2024	6132	---	33	38	4.95	30	1.2	37.53	50
18	Dispatch	-	-	---	-	-	-	30	1.2	-	50

Sl. No	2 X 500 TPD Sponge Iron Kiln 1 & 2	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
9	Cooler Discharge -1	18288	17240	-
10	Cooler Discharge -2	18108	17301	-
11	Coal stock house	19359	18544	-
12	PSB 1 System-1	20129	19109	-
13	PSB 1 System-2	19747	18677	-
14	PSB 2 System-1 MCC	20264	19179	-
15	PSB 1 System-2 Road	20866	19672	-
16	Junction House Old & New	20981	20037	-
17	Storage Bunker	20143	19291	-
18	Dispatch	-	-	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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.

Priyanka B M
Analysed By
Priyanka B M
Chemist

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

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-37
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: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **MARCH-2024 (2nd Fort Night)**
- 10 Date of Sample Received : 25.03.2024 & 26.03.2024
- 11 Date of Sample Analysis : 26.03.2024 & 27.03.2024
- 12 Date Sample Analysis Completion : 27.03.2024 & 28.03.2024
- 13 Report Issued Date : **05.04.2024**
- 14 Report Number : **ULR-TC532324000002580F**

RESULTS

Sl. NO	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/s	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
2X500 TPD Sponge Iron Kiln 3&4											
19	DE 3, Axis 3 CD	25.03.2024	6133	---	37	42	4.93	30	1.20	38.84	50
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	25.03.2024	6134	---	37	44	5.10	30	1.20	40.14	50
21	DE 8 & 12 I-Bin, (Stand By)	26.03.2024	6152	---	33	39	4.80	30	1.30	37.00	50
22	DE 9 & 10 PSB 1 & 2 Product Separation bin	26.03.2024	6153	---	34	41	5.12	30	1.4	40.69	50
23	Coal Dryer	26.03.2024	6154	---	36	45	4.84	35	1.90	44.28	50

Sl. No	2X500 TPD Sponge Iron Kiln 3&4	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
19	DE 3, Axis 3 CD	20089	18949	-
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	20778	19463	-
21	DE 8 & 12 I-Bin, (Stand By)	49013	46795	-
22	DE 9 & 10 PSB 1 & 2 Product Separation bin	52280	49577	-
23	Coal Dryer	19705	18412	-

Parameter	Protocol
Particulate Matter (mg/Nm ³)	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 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.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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 : **MARCH-2024**
 Report Issue Date : **05.04.2024**
 Method Adopted : IS 9989-1981 Reaffirmed 2014
 Report No : **ULR-TC532324000002371F**

Sl. No	Location	Date of Monitoring	Noise Level dB (A)					
			Day Time		Standard	Night Time		Standard
			Min	Max		Min	Max	
1	Main Gate	01.03.2024	54.8	63.9	75	52.3	61.8	70
2	Near ATM	01.03.2024	54.8	60.4	75	51.9	63.5	70
3	Transit House	02.03.2024	49.3	57.3	75	48.4	55.9	70
4	CAAQMS Station	02.03.2024	49.0	60.1	75	46.9	62.3	70
5	Gunda Road	05.03.2024	47.3	55.5	75	45.8	54.7	70
6	Gunda Railway Station	05.03.2024	50.0	56.9	75	53.2	60.1	70
7	Bagging Shed	06.03.2024	59.2	66.7	75	51.7	63.2	70
8	Railway Siding	06.03.2024	61.8	67.5	75	55.2	65.0	70
9	4th Gate	07.03.2024	52.9	62.2	75	49.5	58.9	70
10	Bricks Plant	07.03.2024	62.9	70.2	75	57.1	65.1	70
11	Kempuhalla (Wagon Tippler)	08.03.2024	57.6	66.9	75	52.6	63.4	70
12	Danapura Bridge	08.03.2024	65.8	71.8	75	56.2	65.8	70
13	2nd Gate	09.03.2024	60.0	66.3	75	53.7	60.6	70
14	Project Store	09.03.2024	46.2	59.7	75	49.1	57.3	70
15	Dispatch (Truck Parking Area)	09.03.2024	54.3	57.8	75	52.6	56.8	70

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

(Signature)
 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-39
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: Q679952
Instrument Details : Calibration Date: 02.11.2023
Due Calibration: 01.11.2024
Month : **MARCH-2024**
Report Issue Date : **05.04.2024**
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : **ULR-TC532324000002522F**

Sl. No	Location	Date of Monitoring	Noise Level dB (A)					
			Day Time		Standard	Night Time		Standard
			Min	Max		Min	Max	
1	Main Gate	16.03.2024	56.2	67.8	75	49.1	63.2	70
2	Near ATM	16.03.2024	49.2	59.8	75	46.5	62.7	70
3	Transit House	18.03.2024	47.8	57.9	75	48.9	56.9	70
4	CAAQMS Station	18.03.2024	49.1	56.8	75	46.7	58.1	70
5	Gunda Road	19.03.2024	46.9	54.9	75	44.8	55.8	70
6	Gunda Railway Station	19.03.2024	54.2	60.0	75	51.3	63.1	70
7	Bagging Shed	20.03.2024	57.6	65.7	75	52.4	61.5	70
8	Railway Siding	20.03.2024	60.9	69.5	75	54.9	64.3	70
9	4th Gate	21.03.2024	52.0	58.9	75	50.8	57.2	70
10	Bricks Plant	21.03.2024	63.6	72.4	75	58.1	65.4	70
11	Kempuhalla (Wagon Tippler)	22.03.2024	51.9	58.0	75	47.6	60.7	70
12	Danapura Bridge	22.03.2024	62.9	70.7	75	52.8	64.1	70
13	2nd Gate	23.03.2024	58.6	64.6	75	51.7	59.4	70
14	Project Store	23.03.2024	49.7	57.8	75	48.3	55.7	70
15	Dispatch (Truck Parking Area)	23.03.2024	51.8	58.1	75	49.5	56.3	70

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

[Signature]
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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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 : **MARCH-2024**
 Report Issue Date : **05.04.2024**
 Method Adopted : IS 9989-1981 Reaffirmed 2014
 Report No : **ULR-TC532324000002411F**

Sl. No	Location	Date of Monitoring	Noise Level dB (A)							
			Day Time			Standard	Night Time			Standard
			Min	Max	Avg		Min	Max	Avg	
1	Danapur Village	04.03.2024	40.4	56.1	53.12	55	382	43.1	39.55	45
2	Mariyammana Halli	04.03.2024	41.3	58.3	52.86		38.4	44.3	40.61	
3	Hanumana Halli	04.03.2024	39.6	54.2	50.46		40.1	43.8	42.47	
4	Galemmanagudi	05.03.2024	40.3	55.9	51.02		40.8	43.1	41.59	
5	G.Nagalapura Village	05.03.2024	39.2	53.6	50.14		38.3	41.3	38.73	
6	Gunda Tanda Village	05.03.2024	40.1	54.8	50.06		38.4	42.1	39.63	

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.
------------------	---

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

NOISE: (AMBIENT STANDARDS)

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

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15 Days, 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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/RO18
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	:	5832
10	Date of Sampling	:	09.03.2024
11	Sample Received	:	09.03.2024
12	Date of Analysis	:	09.03.2024
13	Date of Analysis Completion	:	15.03.2024
14	Report Issue Date	:	05.04.2024
15	Report Number	:	ULR-TC532324000002461F

Results

Sl. No.	Parameters	Protocol	Unit	Danapur Village (GW1)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.53	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	2500	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1500	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.4	1	5
5.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	210.86	200	400
7.	Phosphorus as P	APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	320.6	-	-
9.	Potassium as K	APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-
10.	Calcium as Ca	APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	148.51	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	47.80	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	568.0	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	399.87	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.70	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	17.58	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	500.0	200	

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





GLOBAL ENVIRONMENT & MINING SERVICES

(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




TC-5323

ANNEXURE-41

17.	Acidity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.18	0.30	NR
19.	Nickel as Ni	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.132	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.152	5	15
23.	Lead as Pb	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23 rd 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.

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


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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-41
GEMS-LD/TF/23/01


Analysis Report of Water Quality Data

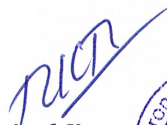
1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/RO18
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	Grab Sampling
5	Sampling Procedure	:	GEMS-LD/SOP/32
6	Discipline	:	Chemical/Biological
7	Group	:	Pollution & Environment
8	Sample Type	:	Ground Water
9	Sample Code	:	5832
10	Date of Sampling	:	09.03.2024
11	Sample Received	:	09.03.2024
12	Date of Analysis	:	09.03.2024
13	Date of Analysis Completion	:	15.03.2024
14	Report Issue Date	:	05.04.2024
15	Report Number	:	GEMS/WATER/2023-2024/2461

Results

Sl. No	Parameters	Protocol	Unit	Danapur Village (GW1)	Standards as per IS: 10500:2012	
					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	-

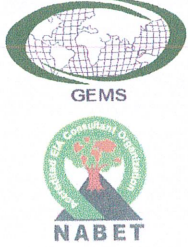
Note: Ab: Absent, NR: No Relaxation


Analysed By
Priyanka B M
Chemist


Authorised 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-42
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/RO18
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	:	5834
10	Date of Sampling	:	09.03.2024
11	Sample Received	:	09.03.2024
12	Date of Analysis	:	09.03.2024
13	Date of Analysis Completion	:	15.03.2024
14	Report Issue Date	:	05.04.2024
15	Report Number	:	ULR-TC532324000002463F

Results

Sl. No	Parameters	Protocol	Unit	Hanumanahalli Village (GW2)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.94	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	850	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	510	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.3	1	5
5.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	49.75	200	400
7.	Phosphorus as P	APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	120.56	-	-
9.	Potassium as K	APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-
10.	Calcium as Ca	APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	39.98	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	18.32	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	173.4	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl-	mg/L	114.96	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.75	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	14.74	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	206.0	200	600

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





GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-42


17.	Acidity as CaCO ₃	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 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.138	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.112	5	15
23.	Lead as Pb	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23 rd 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.

INFERENCE

As per Standards IS: 10500:2012

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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-42
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/Biological
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 5834
10	Date of Sampling	: 09.03.2024
11	Sample Received	: 09.03.2024
12	Date of Analysis	: 09.03.2024
13	Date of Analysis Completion	: 15.03.2024
14	Report Issue Date	: 05.04.2024
15	Report Number	: GEMS/WATER/2023-2024/2463

Results

Sl. No	Parameters	Protocol	Unit	Hanumanahalli Village (GW2)	Standards as per IS: 10500:2012	
					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 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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.
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	:	5835
10	Date of Sampling	:	09.03.2024
11	Sample Received	:	09.03.2024
12	Date of Analysis	:	09.03.2024
13	Date of Analysis Completion	:	15.03.2024
14	Report Issue Date	:	05.04.2024
15	Report Number	:	ULR-TC532324000002464F

Results

Sl. No	Parameters	Protocol	Unit	Galemmana Gudi Village (GW3)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.56	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	2300	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1380	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.2	1	5
5.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	110.56	200	400
7.	Phosphorus as P	APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	206.56	-	-
9.	Potassium as K	APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-
10.	Calcium as Ca	APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	161.56	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	43.76	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	584.0	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	489.84	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.72	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	17.56	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	522.0	200	

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





GLOBAL ENVIRONMENT & MINING SERVICES

(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




TC-5323


ANNEXURE-43

17.	Acidity as CaCO ₃	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	0.16	0.30	NR
19.	Nickel as Ni	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.112	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.144	5	15
23.	Lead as Pb	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23 rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72)	mg/L	<0.05	0.05	NR

Note: GW3: Galemmana Gudi Village. NR-No relaxation.

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


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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-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.
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/Biological
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 5835
10	Date of Sampling	: 09.03.2024
11	Sample Received	: 09.03.2024
12	Date of Analysis	: 09.03.2024
13	Date of Analysis Completion	: 16.03.2024
14	Report Issue Date	: 05.04.2024
15	Report Number	: GEMS/WATER/2023-2024/2464

Results

Sl. No	Parameters	Protocol	Unit	Galemmana Gudi Village (GW3)	Standards as per IS: 10500:2012	
					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 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/RO18
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	:	5833
10	Date of Sampling	:	09.03.2024
11	Sample Received	:	09.03.2024
12	Date of Analysis	:	09.03.2024
13	Date of Analysis Completion	:	15.03.2024
14	Report Issue Date	:	05.04.2024
15	Report Number	:	ULR-TC532324000002462F

Results

Sl. No	Parameters	Protocol	Unit	Mariyammana Halli Village (GW4)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.17	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	2800	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1680	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.4	1	5
5.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	179.56	200	400
7.	Phosphorus as P	APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	530.02	-	-
9.	Potassium as K	APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-
10.	Calcium as Ca	APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	155.04	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	45.78	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	576.0	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	429.86	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.80	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	18.35	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	480.0	200	

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





GLOBAL ENVIRONMENT & MINING SERVICES

(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




TC-5323

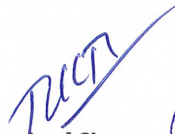
ANNEXURE-44


17.	Acidity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.19	0.30	NR
19.	Nickel as Ni	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.202	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.184	5	15
23.	Lead as Pb	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23 rd 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

INFERENCE	As per Standards IS: 10500:2012 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



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(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

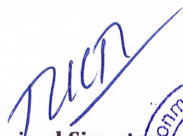
Website: www.globalmining.in

ANNEXURE-44
GEMS-LD/TF/23/01**Analysis Report of Water Quality Data**

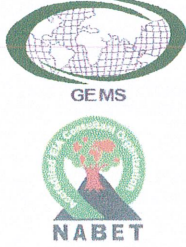
1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/RO18
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical/Biological
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 5833
10	Date of Sampling	: 09.03.2024
11	Sample Received	: 09.03.2024
12	Date of Analysis	: 09.03.2024
13	Date of Analysis Completion	: 15.03.2024
14	Report Issue Date	: 05.04.2024
15	Report Number	: GEMS/WATER/2023-2024/2462

Results

Sl. No	Parameters	Protocol	Unit	Mariyammana Halli Village (GW4)	Standards as per IS: 10500:2012	
					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 RelaxationAnalysed 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/RO18
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	:	5836
10	Date of Sampling	:	09.03.2024
11	Sample Received	:	09.03.2024
12	Date of Analysis	:	09.03.2024
13	Date of Analysis Completion	:	15.03.2024
14	Report Issue Date	:	05.04.2024
15	Report Number	:	ULR-TC532324000002465F

Results

Sl. No	Parameters	Protocol	Unit	Gunda Thanda (GW5)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.79	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	800	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	480	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.2	1	5
5.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	30.26	200	400
7.	Phosphorus as P	APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	61.36	-	-
9.	Potassium as K	APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-
10.	Calcium as Ca	APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	53.04	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	23.43	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	226.44	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	104.96	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.68	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	14.23	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	278.0	200	600

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





GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-45


17.	Acidity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.10	0.30	NR
19.	Nickel as Ni	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.086	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.074	5	15
23.	Lead as Pb	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23 rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72)	mg/L	<0.05	0.05	NR

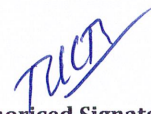
Note: GW5: Gunda Thanda. **NR**-No relaxation.

INFERENCE

As per Standards IS: 10500:2012

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. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(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-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/Biological
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 5836
10	Date of Sampling	: 09.03.2024
11	Sample Received	: 09.03.2024
12	Date of Analysis	: 09.03.2024
13	Date of Analysis Completion	: 15.03.2024
14	Report Issue Date	: 05.04.2024
15	Report Number	: GEMS/WATER/2023-2024/2465

Results

Sl. No	Parameters	Protocol	Unit	Gunda Thanda (GW5)	Standards as per IS: 10500:2012	
					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 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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/RO18
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	:	5837
10	Date of Sampling	:	09.03.2024
11	Sample Received	:	09.03.2024
12	Date of Analysis	:	09.03.2024
13	Date of Analysis Completion	:	15.03.2024
14	Report Issue Date	:	05.04.2024
15	Report Number	:	ULR-TC532324000002466F

Results

Sl. No	Parameters	Protocol	Unit	G. Nagalapura (GW6)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.83	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	1050	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	630	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.2	1	5
5.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	35.38	200	400
7.	Phosphorus as P	APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	152.76	-	-
9.	Potassium as K	APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-
10.	Calcium as Ca	APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	50.59	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	20.43	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	208.08	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	79.97	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.46	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	15.35	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	424.0	200	600

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





GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-46


17.	Acidity as CaCO ₃	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	0.15	0.30	NR
19.	Nickel as Ni	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.124	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.102	5	15
23.	Lead as Pb	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 rd 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

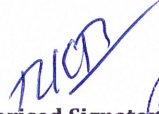
Note: GW6: G.Nagalapura. **NR**-No relaxation.

INFERENCE

As per Standards IS: 10500:2012

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. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(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-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/Biological
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 5837
10	Date of Sampling	: 09.03.2024
11	Sample Received	: 09.03.2024
12	Date of Analysis	: 09.03.2024
13	Date of Analysis Completion	: 15.03.2024
14	Report Issue Date	: 05.04.2024
15	Report Number	: GEMS/WATER/2023-2024/2466

Results

Sl. No	Parameters	Protocol	Unit	G. Nagalapura (GW6)	Standards as per IS: 10500:2012	
					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 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

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	: 5838
10	Date of Sampling	: 09.03.2024
11	Sample Received	: 09.03.2024
12	Date of Analysis	: 09.03.2024
13	Date of Analysis Completion	: 15.03.2024
14	Report Issue Date	: 05.04.2024
15	Report Number	: ULR-TC532324000002467F

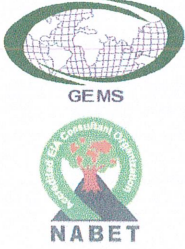
Results

Sl. No	Parameters	Protocol	Unit	RO Drinking Water	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.60	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	160	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	96	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.0	1	5
5.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	13.26	200	400
7.	Phosphorus as P	APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	5.23	-	-
9.	Potassium as K	APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-
10.	Calcium as Ca	APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	7.34	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	3.55	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	32.64	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	19.99	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.05	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	1.56	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	58.0	200	

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





GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-47

17.	Acidity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.07	0.30	NR
19.	Nickel as Ni	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	5	15
23.	Lead as Pb	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23 rd 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 rd 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.

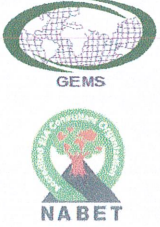
INFERENCE	As per Standards IS: 10500:2012 Report Status: - Measured Values for the above parameters are within the limit.
------------------	--

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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-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/Biological
7	Group	: Pollution & Environment
8	Sample Type	: RO Drinking Water
9	Sample Code	: 5838
10	Date of Sampling	: 09.03.2024
11	Sample Received	: 09.03.2024
12	Date of Analysis	: 09.03.2024
13	Date of Analysis Completion	: 15.03.2024
14	Report Issue Date	: 05.04.2024
15	Report Number	: GEMS/RO/2023-2024/2467

Results

Sl. No	Parameters	Protocol	Unit	RO Drinking Water	Standards as per IS: 10500:2012	
					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 23 RD Edition-3111 –B (Pg No.3 -20 to 3-21)	mg/L	<0.001	0.003	NR
6.	Selenium as Se	APHA 23 rd Edition 3114 B. Direct Air Acetylene Flame Method	mg/L	<0.05	0.01	No Relaxation
7.	Cyanides (as CN)	APHA 23 RD Edition 4500 CN- (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 RD Edition 5540 C (Pg. No.5-55 to 5-57)	mg/L	BDL	0.2	1.0
10.	Boron as B	APHA 23 rd Edition 2017 4500 B-B (p.no.4-25 to 4-26)	mg/L	<0.5	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 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-48
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/RO18
- 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 : **Sewage Treatment Plant (Outlet)**
- 9 Date of Sampling : 08.03.2024
- 10 Sample Received : 09.03.2024
- 11 Date of Analysis : 09.03.2024
- 12 Date of Analysis Completion : 15.03.2024
- 13 Report Issue Date : 05.04.2024
- 14 Report Number : **ULR-TC532324000002442F**

Sl. No.	Parameters	Protocol	Unit	Results			As per KSPCB Std
				STP 45 KLD	STP-1 90 KLD	STP-2 90 KLD	
Sample code				5791	5792	5793	
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.67	7.60	7.70	6.5 to 8.5
2.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	9.0	15.0	9.0	<20
3.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	8.0	7.0	8.0	<10
4.	Chemical Oxygen Demand as COD	APHA 23 rd Edition 2017 5220 C (Pg. No.5-18 to 5-19)	mg/L	38.08	44.88	48.08	<50
5.	Oil & Grease	APHA 23 rd Edition 2017 5520 B (Pg. No.5-41 to 5-42)	mg/L	2.0	4.0	2.0	10

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 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.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(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-48
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/RO18
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	: Sewage Treatment Plant (Outlet)
9	Date of Sampling	: 08.03.2024
10	Sample Received	: 09.03.2024
11	Date of Analysis	: 09.03.2024
12	Date of Analysis Completion	: 15.03.2024
13	Report Issue Date	: 05.04.2024
15	Report Number	: GEMS/STP/2023-2024/2442

Sl. No.	Parameters	Protocol	Unit	Results			As per KSPCB Std
				STP 45 KLD	STP-1 90 KLD	STP-2 90 KLD	
		Sample code	-	5791	5792	5793	
1.	Color	APHA 23 RD Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	6	4	6	-
2.	Odour	IS: 3025 (PART 5)- 1983, RA-2012, True Odour	-	Agree able	Agree able	Agree able	-
3.	Cyanides (as CN)	APHA 23 RD Edition 4500 CN (Pg. No.4-45 to 4-46)	mg/L	BDL	BDL	BDL	-
4.	Phenolic Compounds (as C ₆ H ₅ OH)	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L	BDL	BDL	BDL	-
5.	Chromium (as Cr ⁶⁺)	APHA-23 RD Edition-3500 Cr B (Pg. No.3-71 to 3-72)	mg/L	<0.001	<0.001	<0.001	-
6.	Ammonical nitrogen as N	IS:3025 (part 34)-1988, RA-2014, Nesslerization method	mg/L	1.12	0.84	1.68	-

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 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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



TC-5323

ANNEXURE-49
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	: Composite Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical
7	Group	: Pollution & Environment
8	Sample Type	: Waste Water
9	Date of Sampling	: 09.03.2024
10	Sample Received	: 10.03.2024
11	Date of Analysis	: 10.03.2024
12	Date of Analysis Completion	: 15.03.2024
13	Report Issue Date	: 05.04.2024
14	Report Number	: ULR-TC532324000002468F

Results

Sl. No.	Parameters	Protocol	Unit	Results		As per KSPCB Std
				Neutralization Pit 70 MW Power Plant	Neutralization Pit 2x70 MW Power Plant	
Sample Code				5839	5840	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	8.36	8.29	6.5 to 9.0
2.	Total Suspended Solids	APHA 23rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	1.2	1.4	100
3.	Chemical Oxygen Demand as COD	APHA 23rd Edition 2017 5220 C (Pg. No.5-18 to 5-19)	mg/L	24.0	22.0	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.

INFERENCE: The Measured values are within the Limit.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

1. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(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-50
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	:	-
4	Particulars of sample collected	:	-
5	Sampling Procedure	:	-
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	:	05.04.2024

Sl. No.	Parameters	Protocol	Unit	Results		IS 2296 - 1982 CLASS - B
				Danayakanakere Upstream	Danayakanakere Downstream	
Sample code						
1.	pH	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 RD Edition 4500F-D (Pg. No.4-90 to 4-91)	mg/L	-	-	1.5
4.	Arsenic as As	APHA-23 RD Edition-3114 -B (Pg. No.3 -36 to 3-40)	mg/L	-	-	0.2
5.	Dissolved Oxygen	APHA 23 RD Edition 4500 C (Pg. No.4-146)	mg/L	-	-	>5.0
6.	Color	APHA 23 RD Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	-	-	300
7.	Cyanides (as CN)	APHA 23 RD Edition 4500 CN- (Pg. No.4-45 to 4-46)	mg/L	-	-	0.05
8.	Phenolic Compounds (as C ₆ H ₅ OH)	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L	-	-	0.005
9.	Chromium (as Cr ⁶⁺)	APHA-23 RD Edition-3500 Cr B (Pg. No.3-71 to 3-72)	mg/L	-	-	1.0
10.	Anionic detergents (as MBAS)	APHA 23 RD 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: Water Sample not collected, Because No water inside Danayakanakere

TKR
Authorized 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



GLOBAL ENVIRONMENT & MINING SERVICES

(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-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	:	06.03.2024

Sl. No.	Parameters	Protocol	Unit	Results		IS 2296 - 1982 CLASS -B
				KempuHalla Upstream	KempuHalla Downstream	
Sample code				-	-	
1.	pH	APHA 23 rd 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 rd Edition 4500F-D (Pg. No.4-90 to 4-91)	mg/L	-	-	1.5
4.	Arsenic as As	APHA-23 rd Edition-3114 -B (Pg. No.3 -36 to 3-40)	mg/L	-	-	0.2
5.	Dissolved Oxygen	APHA 23 rd Edition 4500 C (Pg. No.4-146)	mg/L	-	-	>5.0
6.	Color	APHA 23 rd Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	-	-	300
7.	Cyanides (as CN)	APHA 23 rd Edition 4500 CN (Pg. No.4-45 to 4-46)	mg/L	-	-	0.05
8.	Phenolic Compounds (as C ₆ H ₅ OH)	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L	-	-	0.005
9.	Chromium (as Cr ⁶⁺)	APHA-23 rd Edition-3500 Cr B (Pg. No.3-71 to 3-72)	mg/L	-	-	1.0
10.	Anionic detergents (as MBAS)	APHA 23 rd 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	-	-	-

Water Sample not collected, Because KempuHalla no Water Flowing.

K. Ramakrishna Reddy
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



GLOBAL ENVIRONMENT & MINING SERVICES

(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/Biological
7	Group	: Pollution & Environment
8	Sample Type	: Surface Water
9	Date of Sampling	: 09.03.2024
10	Sample Received	: 10.03.2024
11	Date of Analysis	: 10.03.2024
12	Date of Analysis Completion	: 15.03.2024
13	Report Issue Date	: 05.04.2024
14	Report Number	: GEMS/SW/2023-2024/2470

Sl. No.	Parameters	Protocol	Unit	Results	IS 2296 -1982 CLASS -B
				Tungabhadra dam	
Sample Code				5841	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.81	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 RD Edition 4500F-D (Pg. No.4-90 to 4-91)	mg/L	BDL	1.5
4.	Arsenic as As	APHA-23 RD Edition-3114 -B (Pg. No.3 -36 to 3-40)	mg/L	<0.1	0.2
5.	Dissolved Oxygen	APHA 23 RD Edition 4500 C (Pg. No.4-146)	mg/L	6.0	>5.0
6.	Color	APHA 23 RD Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	<5	300
7.	Cyanides (as CN)	APHA 23 RD Edition 4500 CN (Pg. No.4-45 to 4-46)	mg/L	BDL	0.05
8.	Phenolic Compounds (as C ₆ H ₅ OH)	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L	BDL	0.005
9.	Chromium (as Cr ⁶⁺)	APHA-23 RD Edition-3500 Cr B (Pg. No.3-71 to 3-72)	mg/L	<0.001	1.0
10.	Anionic detergents (as MBAS)	APHA 23 RD 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 Reddy
Technical Manager



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