

## SSIL/22-23/GM/271

To.

Shyam Steel Industries Ltd

Shyam Towers, EN-32, Sector V, Salt Lake, Kolkata 700091 Tel +91 33 4007 4007 Fax +91 33 4007 4010

Mail ssi@shyamsteel.com | www.shyamsteel.com

CIN: U27100WB2002PLC094339

Date: 11-11-2022

Deputy Director General of Forests (C)
Ministry of Env., Forest and Climate Change,
Integrated Regional Office, Kolkata IB – 198,
Sector-III, Salt Lake City, Kolkata – 700106

Sub: Six-monthly Compliance to the Environm

Sub: Six-monthly Compliance to the Environment Clearance condition vide MoEF Letter No. F No. J-11011/97/2008-IA.II (I) dated 08.06.2009 of Shyam Steel Industries Limited Expansion of Steel Plant (60,000 TPA to 2,50,000 TPA TMT Bars) by installing Ladle Refining Furnace (LRF,1x30MT), Electric arc Furnace (EAF,1 x 30 MT) with Billet Caster along with Captive Power Plant (10MW) At Raturia Industrial Area, Angadpur, Durgapur, District- Paschim Bardhaman, West Bengal, Pin-713215. (For the period of October April 2022 to September 2022)

Ref: Environment Clearance No. J-11011/97/2008-IA.II (I) dated 08.06.2009.

Dear Sir,

This has reference to the captioned subject and cited reference. It is to inform you that we are herewith submitting six monthly compliance report for the conditions stipulated in the Environmental Clearance of Expansion of Steel Plant (60,000 TPA to 2,50,000 TPA TMT Bars) by installing Ladle Refining Furnace (LRF,1x30MT), Electric arc Furnace (EAF,1 x 30 MT) with Billet Caster along with Captive Power Plant (10MW) for the period April 2022 to September 2022 along with monitoring data report for your kind consideration. The copy of above compliance report is also being sent in soft format through email to <a href="iro.kolkata-mefce@gov.in">iro.kolkata-mefce@gov.in</a> for your kind perusal.

Hope the above are in line with the statutory requirements.

Thanking you.

Yours faithfully,

For Shyam Steel Industries Ltd.

Authorizěď Signatory

Enclosure: As above

Copy to: The Environmental Engineer, West Bengal Pollution Control Board, Sahid Khudiram Sarani, City Center, Durgapur, Paschim Bardhaman-713216, West Bengal.

## ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT

April 2022 to September 2022

Shyam Steel Industries Ltd, Angadpur, Durgapur

Six Monthly Compliance Status report of Environmental Clearance from expansion of (60,000 TPA to 2,50,000 TPA TMT Bars) by installing Ladle Refining Furnace (LRF,1x30MT), Electric arc Furnace (EAF,1 x 30 MT) with Billet Caster along with Captive Power Plant (10MW).

ENVIRONMENTAL MANAGEMENT DEPARTMENT SHYAM STEEL INDUSTRIES LIMITED

#### F No. J-11011/97/2008- IA II (I) Date-08.06.2009

Six Monthly Compliance of conditions stipulated in the Environmental Clearance of Shyam Steel Industries Limited. Expansion of Steel Plant (60,000 TPA to 2,50,000 TPA TMT Bars) by installing Ladle Refining Furnace (LRF,1x30MT), Electric arc Furnace (EAF,1 x 30 MT) with Billet Caster along with Captive Power Plant (10MW) At Raturia Industrial Area, Angadpur, Durgapur, District-Paschim Bardhaman, West Bengal, Pin-713215.

(For the period of April 2022 to September 2022)

Sr. No	Stipulated Conditions	Action taken / To be taken
	pecific Conditions	
i	Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices shall be provided to keep the emission levels below 100 mg/Nm³. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit	Ambient air quality has been monitored at regular interval i.e. every two months by NABL accredite laboratory ITS Laboratory, Noida. Reports are analyse for PM10, PM2.5, SOx & NOx. Accordingly necessar preventive steps are taken to reduce respirabl suspended particulate matter in ambient air. Ambient a quality monitoring report is enclosed as Annexure-III Monitoring frequency of various environments parameters and other suggested improvements are implemented at working site as and when instructed.  ESPs have been installed to Sponge Iron kilns and boilers of CPP. Furnaces are equipped with bag filter. ESPs and Bag filters are designed to achieve Particular Matter emission level below 50 mg/Nm3.  We have installed the Online Stack Monitoring system and data transmission system in stacks as per CPC guidelines. We keep a vigilant observation of the readings. In case of RSPM value higher than 5 mg/Nm3, alarm is raised and plant is stopped to tak necessary corrective action. Data on ambient air quality and stack emission report has been submitted up to 31.03.2022 to the Regional Office, MoEF&CC Bhubaneswar and WBPCB. Now onwards soft copy of EC compliance report will be submitted to Regional Officer, Integrated Regional Office, Kolkata.
ii	Electrostatic precipitator (ESP) shall be provided to WHRB and AFBC boilers. Fume extraction system with bag house shall be provided to electric arc furnace (EAF) and the exhaust gases shall be discharged through a stack of adequate height. Dust extraction system with bag	Waste heat from DRI Kilns are channelized to Waste Heat Recovery Boiler (WHRB) to generate power from steam produced by the WHRB. To control the particulate emission from the stacks of DRI Kiln, boiler of CPP & SMS, pollution control devices such as ESP and bag filters have been installed. Stack emission monitoring report is enclosed as Annexure-IV.  There are 2 nos of ESP's for the 2 nos of WHRB boiler.
		There are 2 nos of ESP's for the 2 nos of WHRB bo and 1 no of ESP for the AFBC boiler. Two F Extraction system with hoods have been installed fo Induction Furnace and Electric Arc Furnace (E.

Moreover 5 nos. of Dust extraction system with Bag

EEL INDUSTRIES LTD.

filters shall be provided to steel

melting shop (SMS). Stack of adequate shall be provided to rolling mill to control the gaseous emissions within the permissible limit. Hot gases from DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in waste heat recovery boiler (WHRB). The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack. All the gaseous emissions shall be within 100 mg/Nm3

filter is in place to control the dust level in DRI unit in strategic location.

Dust settling chamber & after burning chamber is provided respectively to arrest the coarse solids and CO to burn completely present in the hot flue gas coming from DRI kiln and is used in Waste heat recovery boiler (WHRB). The recovered heat is effectively being used for generation of power, thereby saving upon fossil fuel usage & reduction of Carbon Footprint.

iii

Data on ambient air quality stack emissions and fugitive emissions shall be uploaded on the Company's website and also regularly submitted on-line to the Ministry's Regional Office at Bhubaneswar, West Bengal Pollution Control Board (WBPCB) and Central Pollution Control Board (CPCB) as well as hard copy once in six months. Data on SPM, SO2 and NOx shall also be displayed prominently outside premises at the appropriate place for the information of general public.

Environmental monitoring data of ambient air, stack and fugitive emissions are routinely uploaded on the company's website and soft copy of the same is submitted to Regional Officer, Integrated Regional Office, Kolkata.

Data on the emissions are submitted to West Bengal Pollution Control Board (WBPCB) by hard copy once in every six months.

The data of the emissions are displayed outside the Main gate for the information of general public.

Bin Authorized St.

iv	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored Guidelines/Code of Practice issued in this regard by the CPCB shall be followed. New Standards issued by the Ministry for the sponge iron plant in May, 2008 shall be followed.	Fugitive emissions are monitored at potential sources and the data reveals that PM10 ranges b/w 48.5 μg/m3 – 72.4 μg/m3 near product house and near raw material handling yard, which is well within the prescribed standard. Although Fugitive air emission sources are identified and maintained properly to control the fugitive emissions at source itself. We ensure that preventive maintenance of all the potential sources are done on time to prevent the unwanted emissions. Dust extraction system at different unloading bunkers for the product and raw materials handling system has been installed. Bag filters have been provided at stock house, product house, magnetic product separator, cooler discharge area and transfer points to minimize fugitive dust emission. Fugitive emission monitoring report is enclosed as Annexure-V.  Water sprinkling at 09 locations and Dry fog at 4 locations are being carried out to control fugitive dust emission. One number of water tanker is being utilized at the waste disposal area and on the road to control fugitive dust emission.
V	Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements should also be made to control dust emissions during loading and unloading of the raw material and finished product.	We ensure that all vehicles engaged to carry raw materials and finished products are having proper PUC certificate. This has also been ensured that all the transporting vehicles are properly covered with the tarpaulin to prevent any kind of spillage.  We have vehicle mounted dust extractor to remove the spillage and dust generated due to vehicular movement inside plant premises. Water sprinkling is done on the road, material unloading area & finished product loading area inside the plant to suppress the air borne dust.
vi	In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Dust suppression & extraction system with bag filters shall be installed at various dust generating points including raw material handling area and material transfer points. Bag filters shall be provided in coal stacking, reclaiming, crushing, and feeding and ESP dust handling areas to control fugitive dust in power plant.	Machinery and equipment's engaged under operation are listed in preventive maintenance schedule and as per the schedule maintenance is done to minimize the fugitive emission from all the vulnerable sources. Dust extraction systems are properly functioning at different unloading bunkers and other strategic locations. Bag filters have been provided at stock house, product house, cooler discharge area and transfer points to minimize dust emission. Good housekeeping practices have been followed to restrict any spillages inside plant premises.
	As proposed, total water requirement shall not exceed 103 m³/hr (existing 45 m³/hr&	Water consumption is monitored through flow meters installed at inlet and all individual units which reveals that total consumption is as per the agreement signed with Durgapur Municipal Corporation dated 28th May,

vii	proposed 58 m³/hr) as per the agreement signed with Durgapur Municipal Corporation dated 28th May, 2004 for 140 m³/hr. No ground water shall be used. Acid and alkaline effluents from the demineralization (DM) plant shall be neutralized and used for dust suppression and green belt development. Process waste water shall be treated in Effluent Treatment Plant (ETP). Boiler blow down, effluent from billet caster and hot rolling mills shall be reused for dust suppression after treatment for oil & grease in settling tank. All the treated wastewater shall be recycled and reused in the process to the maximum extent possible and reused either in the process and / or for dust suppression, green belt development etc.	2004. Average water consumption for all the operational facilities are Approximately 66 m3/ Hr. No ground water is being utilized in any of the facility. Waste water generated from CPP, because of Boiler blow down is being used for ash quenching, cooling of Rolling Mill Rolls, Secondary cooling of Billet and DRI Cooler. There is no waste water discharge outside the plant premises. The waste water from CCM and Hot Rolling mills are reused in the process after treatment of oil, grease, ash, sludge and scales in settling tank. Waste water analysis report is enclosed as Annexure-VI.
viii	Zero effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises. Domestic effluent shall be appropriately treated in septic tank followed by soak pit and used for green belt development within the premises.	There is no waste water discharged outside the plant premises and all the necessary protective measures are taken to ensure that plant is maintained as Zero Effluent Discharge. Domestic effluent collected from Canteen, Toilets & Offices are appropriately treated in septic tank followed by soak pits and subsequently used for green belt development within plant premises.
ix	The water consumption should not exceed 16 m³/Ton of Steel as per prescribed standard.	Water consumption is below 2 m3/Ton of Steel (Finished Product) and is well within the prescribed standard i.e. 16 m3/Ton.  Water quality analysis report is enclosed as Annexure-VII.
x	Ground water monitoring around the solid waste disposal site/secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhubaneswar, CPCB and WBPCB.	No ground water is being utilized for operation purpose. Although we have one no of borewell inside plant premises to mitigate emergency situation. Same is not been utilized till date.

SHYAM STEEL INDUSTRIES LTD.

xi	All the char from DRI plant shall be utilized in AFBC boiler of power plant and no char shall be disposed off anywhere else. AFBC boiler shall be installed simultaneously along with the DRI plant to ensure full utilization of char from the beginning. SMS slag should also be properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner. Oily waste/lubricants shall be provided to authorized recyclers/ re-processors or properly disposed off as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments	Char has not been disposed off outside plant premises. Char is generated as a by-product of DRI plant and is being fed to AFBC boiler of the Captive Power Plant. In addition to that we are procuring char from market because generated char is not enough to feed the Captive Power Plant.  Slag coming out of SMS undergoes the TCLP test and if found suitable then we utilize the same for filling the low lying area inside plant premises. Other solid wastes such as broken refractory mass & crushed ladle are utilized in making spout of the furnace. In due course of time such material gets disintegrated & ultimately disposed along with the slag for land filling purpose. Hazardous wastes such as used oil/lubes are collected and stored safely in earmarked location and subsequently disposed off to SPCB authorized vendor.
xii	No slag and fly ash shall be disposed off in abandoned Raniganj mining area without prior permission from the concerned authority and a commitment in this regard shall be submitted to the Ministry's Regional Office at Bhubaneswar, WBPCB and CPCB. All the slag from induction furnace/EAF/LRF shall be used for land filling inside the plant or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) test. Toxic slag shall be disposed in secured landfill as per CPCB guidelines. Otherwise, hazardous substances shall be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines.	We do not dispose off any of the slag and fly ash generated to abandon Raniganj Mining Area where as we are utilizing fly ash for making composite bricks at Shyam Steel Industries Ltd, Bamunara and remaining fly ash is being sent to cement plant of Ultratech Cements as per the agreement.  Apart from that slag coming out of furnaces of SMS are duly tested for Toxic Chemical Leachability Potential Test and if found suitable then utilized in filling the low lying area inside plant premises.  Solid waste analysis report is enclosed as Annexure-VIII.
xiii	Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003. All the fly ash shall be provided to cement and brick manufacturers for further	Fly ash is being utilized for making of composite bricks in Shyam Steel Industries Ltd, Bamunara and remaining ash is supplied to Ultratech Cements under 'Memorandum of Understanding' dated 05.05.2014.

	utilization and 'Memorandum of Understanding' shall be submitted to the Ministry's Regional Office at Bhubaneswar.	
xiv	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal to the Ministry's Regional Office at Bhubaneswar.	Solid wastes are being documented, collected, stored and utilized in best possible manner on daily basis. Dolochar is being used in AFBC boiler as fuel, Fly ash is utilized in composite brick manufacturing, slag is crushed and after recovery of iron given to brick manufacturers. We have already submitted a report containing the Solid Waste management plan and actions at our end to the Ministry's Regional Office at Bhubaneswar.
xv	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhubaneswar, WBPCB and CPCB.	Wastes are segregated at source and accordingly stored in earmarked locations. Further non-toxic wastes such as cartons, woods and end cuts are sold to recyclers whereas hazardous wastes are tested for TCLP test and waste passing TCLP test are subsequently used for filling purpose of low lying area. Hazardous wastes are kept separately as per the guidelines and further disposed off in environmentally friendly manner to authorised vendor
xvi	As proposed, green belt shall be developed in 6.6 acres (33 %) out of total 20 acres within and around the plant premises to mitigate the effects of fugitive emissions as per the CPCB guidelines in consultation with DFO	Green belt development is a prime requirement and is been carried out every year inside as well as outside factory premises. Three tier plantation is being developed inside factory premises. Plantation activity is carried out in proper consultation with local forest range officer.  The plantation has been raised comprising trees species like Chatim, Ashok, Bakul, kadam, Karanj & Neem etc.  Tree plantation report is attached as Annexure- I
xvii	All the recommendations made in the Charter in Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be implemented.	There are recommendations under CREP guidelines for solid & hazardous waste management, water conservation, Fugitive & stack emission monitoring and adoption of clean technologies. We have implemented recommendations at our Shyam Steel Industries Ltd. Status report of CREP recommendation is enclosed as Annexure-II.
xvii i	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe	The company is providing the necessary facilities to all contract labours engaged in activity inside plant premises such as washrooms, canteen, drinking water, medical care & creche.

В. С	drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.  General Conditions	
i	The project authorities shall adhere to the stipulations made by the West Bengal Pollution Control Board (WBPCB) and the State Government.	We have obtained Consent to Operate (CTO) from WBPCB vide CTO No CO123387 dated 25.03.2022, valid till 31.03.2027. We have also obtained Hazardous waste authorization from WBPCB vide letter no 132/2S (HW)- 2881/2012 .dated 29.06.2018 valid till 30.11.2022 .
ii	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	We will abide by the condition and will obtain all the necessary pre requisites for any future modification / expansion of the unit from the MoEF&CC.
iii	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The West Bengal Pollution Control Board (WBPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	Online stack monitoring system has been installed in stacks to monitor the emission level. If it exceeds the threshold value it raises the alarm for necessary corrective action.
Authorised Signatory	Ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the WBPCB. Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and shall be carried out regularly in consultation with WBPCB and data submitted to the CPCB and WBPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time	Ambient air quality as well as ambient noise level is being monitored once in every two months by NABL accredited laboratory ITS Laboratory, Noida. Reports are analysed for PM10, PM2.5, SOx & NOx and necessary preventive steps are taken to reduce respirable suspended particulate matter in ambient air. We have also provided acoustic enclosures where ever it is possible to reduce exposure. Frequency of monitoring of various environmental parameters and other improvements are implemented as and when instructed.  ESPs have been installed to Sponge Iron kilns and boilers of CPP and furnaces are equipped with bag filters. ESPs and Bag filters are designed to achieve Particulate Matter emission level below 50 mg/Nm3. Data on ambient air quality and stack emission report has been submitted upto 31.03.2022 to the Regional Office, MoEF&CC, Bhubaneswar and WBPCB. Now onwards soft copy of EC compliance report will be submitted to Regional Officer, Integrated Regional Office, Kolkata.

v	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Noise level monitoring is scheduled once in every two months in all the potential noise generation area. Accordingly we have provided noise control measures like acoustic hoods, silencers, sound proof enclosures on all sources of noise generations to keep the overall noise level in and around the plant area well within the prescribed standards. As a protective measure we provide ear plug to all our employees to relieve them of any discomfort due to noise. There is no area inside the plant with noise level above 85dB. Noise level monitoring report is enclosed as Annexure-IX.
vi	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Pre-placement and periodical medical examination of the workers & contract labours engaged in the plant are being done and records maintained. We have well equipped first aid station with 24x7 ambulance facility to attend any emergency to our employees and contract labours. Total employee on company role is 833 & on contract is 841.  Personal protective equipment's are being provided to all workers respective to the nature of the job. Initial and periodical awareness training is being imparted to all workers in the Company's Vocational Training Centre located within the plant premises on Safety and Health Aspects.
vii	All the environment management measures given in the EIA/EMP shall be implemented and complied with.	Environment management measures of EIA/EMP reports are duly complied and reviewed for its current status. In addition to that observations of inspecting authority relating to environment management is also taken care for the betterment of residing community & nature.
viii	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	We have constructed surface water harvesting structure where in we have considered the maximum rainfall in last 20 Years to construct the suitable capacity of holding tank.
ix	Proper housekeeping shall be ensured	Mechanical sweeping machines are being used continuously for maintaining proper housekeeping inside plant premises. We are gradually adopting business excellence models to make our work environment for clean and safe working.

environment for clean and safe working.

Show Authorised Signature

X	The company shall undertake eco-development measures including community welfare measures in the project area.	The company has implemented community welfare measures at ground level to benefit nearby communities. Company has contributed in healthcare sector by providing monetary and logistic support as mobile healthcare vehicle with well qualified medical staff & medicines, infrastructural development of hospitals by providing Air-conditioners and furniture items and actively participated in supply of food grains to the deprived community amidst covid pandemic. To counter the covid pandemic company has made modern crematorium for proper last right to the deceased.  Massive plantation drive by providing saplings to nearby schools and carried out avenue plantation outside factory premises for ecological restoration of surrounding.  Apart from that all the necessary facilities which were previously provided or constructed are maintained properly so that community can utilize the same efficiently.  Shyam Steel exclusively focuses on sanitation, drinking water facility, livelihood schemes, repair of village roads, building sports grounds, free distribution of books, helping in various religious activities & environmental sustainability.
xi	A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	Environment management cell has been made and environmental manager has been appointed to manage the routine environmental activities under the guidance of factory manager.  He has to ensure the environmental monitoring of various parameters, Analysis of monitoring reports, necessary corrective action at site and further submission of compliance report to various regulatory authorities.
xii	As proposed, Rs 223.00 Lakhs and Rs. 44.5 Lakhs shall be earmarked towards the capital cost recurring cost/annum for environment pollution control measures and used judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	Funds allocated for implementation of various environment pollution control measures and its maintenance are being utilized to fulfil the conditions stipulated by the Ministry as well as the State Pollution Control Board.
xiii	The Regional Office of this Ministry at Bhubaneswar /CPCB/WBPCB shall monitor the stipulated conditions. A sixmonthly compliance report and	A soft copy of six monthly compliance report along with monitoring data is submitted on a regular basis to The Regional Officer, Integrated Regional Office, Kolkata. Apart from that hard copy of the same is also submitted to WBPCB.

SHYAM STEEL NDUSTRIES LTD.

xiv	the monitored data along with statistical interpretation shall be submitted to them regularly.  Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Will be complied.
xv	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the W.B. Pollution Control Board and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhubaneswar.	The clearance letter informing that the project has been accorded Environment Clearance is advertised in two local newspapers namely "The Echo of India" (English Daily) dated. 17-06-2009 and "Arthik Lipi" (Bengali Daily) dated 17.06.2009.

SHYAM STEEL INDUSTRIES LTD.

Authorised Signatory

## Annexure-1

## Details of tree plantation report for the period April'22 - September'22

	MINIST	TRY OF ENVIRONMENT AND FORESTS						
	IN	NTEGRATED REGIONAL OFFICE						
	KOLKATA	A IB – 198, SECTOR-III, SALT LAKE CITY, KOLKATA – 700106						
]	FORMAT FOR PROVI	DING PARTICULARS ON GREEN BELT/ PLANTATION						
	UNDE	R F ( C ) ACT 1980 AND E ( P) ACT 1986						
	a) Name of Project:	SHYAM STEEL INDUSTRIES LIMITED						
1	b) Envt./ Forest Clearance Nos.:	F No. J-11011/97/2008- IA II (I) Date-08.06.2009						
2	Location, Block/ Sub. Divn./ Dist./ State:	Angadpur, Durgapur, Paschim Bardhaman, West Bengal						
3	Address of communication:	Shyam Steel Industries Limited, Shyam Towers, EN- 32, Sector- V, Salt Lake, Kolkata - 700091						
	Existing vegetation in t	he area/ region:						
4	a) Species (trees/ shrubs/ grasses/ climbers):	shrubs/ grasses/						
	b) Major prevalent species of each type	Bakul, Chatim, Ashok, Karanj, Kadam, Neem						
	Land coverage by the	Land coverage by the project:						
5	a) Total area under the project:							
	b) Area covered for basic infrastructure (roads/ building/ factory etc.):	80%						
	Details about natural vegetation:							
	a) Name and number of plant of tree/ species felled:	Nil						
6	b) Name and number of plant species still available in the area:	Not Available						
	c) By protecting the area will indigenous stock come up:	Yes						
		20%						

9	plantat	arrying out ion and enance	: Self			
		Finar	icial detail	s year wise	e /plantation wi	ise / item wise
10	Sl. No.	Year	Fund allocated		Expenditur e made	Average cost of each surviving plant in Rs.
	1	2019			420000	
	2	2020			560000	
	3	2021			480000	
11	Inspection of plantation by field experts and their comments and their comments and follow up actions		: Site visit at regular interval is done after plantation to for better survival of saplings.			
12	Remarks/ any other information		: Water sprinkling is frequently done to ensure proper growth of saplings.			

SHYAM STEEL INDUSTRIES LTD.

	a) Conditions of Environmental clearance in ha. / Nos.:  b) Conditions for Forest Act © clearance in ha. / Nos.:  c) Voluntarily in ha. / nos.		33%						
7				33%					
	Details of plantation								
	a) Total ar	a) Total area available for plantation in each category:							
	i) Green Belt	ii)Dumps	iii) Back filled area	iv)Road side	V) Block plantation				
	Nil	Nil	Nil	2 RKM		1000 Sqm			
	b) Plantati	on details (cat	egory wis	e & method	ology used)				
	Year of Plantatio n	Species Planted	Spacin g	Height Attaine d	Total Area Covered	Area Still Available			
8		50 Saplings - Planted inside plant premises.	5- 6 Ft.	3 – 6 Ft.	0.1 Ha	Gap Filling			
	2022	550 Saplings - Planted outside the plant premises.			-	Gap Filling			
		500 Saplings - Distribute d to different social institutions and employees							
		M		c) Survival	of Plantation				
	Year of Plantatio n	2017	2018	2019	2020	2021			
	Total plantatio ns (No.)	200	350	630	1850	950			
	Survival (No.)	146	350	630	1480	760			
	Survival %	73	100	100	80	80			

SHYAM STEEL MUDUSTRIES LTD. 1

Authorised Signatory

4	SOLID WASTE/ HAZARDOUS WASTE MANAGEMENT- Utilisation of Steel Melting Shop (SMS)/ Blast Furnace (BF) slag as per the following schedule:  * By 2004 - 70%  * By 2006 - 80%  * By 2007 - 100%  Hazardous Waste- Charge of tar sludge/ ETP sludge to Coke Oven by June 2003. Inventorization of the Hazardous waste as per Hazardous Waste (M&H), Rules, 1989 as amended in 2000 and implementation of the Rules by Dec, 2003. (Tar sludge, acid sludge, waste lubricating oil and type fuel falls in the category of Hazardous waste).	Hazardous wastes are stored, transported and disposed off as per the Hazardous Waste Authorization granted.
5	WATER CONSERVATION/ WATER POLLUTION- To reduce specific water consumption to 5 m3/t for long products and 8 m3/t for flat products by December 2005.	We are maintaining water consumption within the limit.
6	Installation of Continuous stack monitoring system & its calibration in major stacks and setting up of the online ambient air quality monitoring stations by June 2005.	Online stack monitoring system is installed.
7	To operate the existing pollution control equipment efficiently and to keep proper record of run hours, failure time and efficiency with immediate effect.  Compliance report in this regard be submitted to CPCB/ SPCB every three months.	Complied
8	To implement the recommendations of Life Cycle Assessment (LCA) study sponsored by MoEF by December 2003.	To be complied.
9	The industry will initiate the steps to adopt the following clean technologies measures to improve the performance of industry towards production, energy land environment.  - Energy recovery of top Blast Furnace (BF) gas.  - Use of Tar- free runner linings.  - De- dusting of Cast house at tap holes, runners, skimmers ladle and charging points.  - Suppression of fugitive emissions using nitrogen gas or other inert gas.  - To study the possibilities of slag and fly ash transportation back to the abandoned mines, to fill up the cavities through empty railway wagons while they return back to the mines and its implementation.  - Procession of the waste containing flux & ferrous wastes through waste recycling plant.  - To implement rain water harvesting  - Reduction Green House Gases by:  Reduction in power consumption  Use of by- products gases for power generation  Promotion of Energy Optimisation Technology including energy/ audit  - To set targets for resource conservation such as Raw material, energy and water consumption to match International Standards.  - Up- gradation in the monitoring and analysis facilities for air and water pollution. Also to impart elaborate training to the manpower so that realistic data is obtained in the environmental monitoring laboratories.  - To improve overall housekeeping	NA
10	- To improve overall housekeeping.  SPONGE IRON PLANTS Inventorisation of sponge iron plants to be completed by SPCBs/ CPCE by June 2003 and units will be asked to install proper air pollution control equipment by December 2003 to control primary and secondary emissions.  As per rebuilding schedule submitted to CPCB/ MoEF.	All required PCD are installed as per the guidelines of SPCB.

SHYAM STEEL INDUSTRIES LTD.

Authorised Signatory

## Compliance status of CREP recommendations for the period April'22 - September'22

Sl. No.	CREP RECOMMENDATIONS	COMPLIANCE STATUS
CEM	IENT INDUSTRY	NA
1	Cement plants, which are not complying with notified standard, shall do the following to meet the standards; Augmentation of existing Air Pollution Control Devices- By July 2003 Replacement of existing Air Pollution Control Devices- By July 2004	
2	Cement plants located in critically polluted or urban areas (including 5 km distance outside urban boundary) will meet 100mg/Nm3 limit or particulate matter by December 2004 and continue working to reduce the emission of particulate matter to 50mg/Nm3.	
3	The new cement kilns to be accorded NOC/ Environmental Clearance w.e.f 01.04.2003 will meet the limit of 50 mg/Nm3 for particulate matter emissions.	
4	CPCB will evolve load based standards by December 2003	
5	CPCB and NCBM will evolve SO2 and NOx emission standards by June 2004	
6	The Cement industries will control fugitive emissions from all the raw material and products storage and transfer points by December 2003. However, the feasibility for the control of fugitive emissions form limestone and coal storage areas will be decided by the National Task Force (NFT). The BTF shall submit its recommendations within three months.	
7	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum cokes as fuel in cement kiln by July 2003.	
8	After performance evaluation of various types of continuous monitoring equivalent and feedback form the industries and equipment manufacturers, NTF will decide feasible unit operations/ sections for installation of continuous monitoring equipment. The industry will install the continuous monitoring systems (CMS) by December 2003	
9	Tripping in Kiln ESP to be minimized by July 2003 as per the recommendations of NTF.	
10	Industries will submit the target date to enhance the utilization of waste material by April, 2003.	
11	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003.	
12	Cement industries will carry out feasibility study and submit target dates to CPCB for co-generation of power by July 2003.	
*	Non complying units shall be given bank guarantee to respective SPCBs.	
INT	EGRATED IRON & STEEL INDUSTRY	
1	COKE OVEN PLANTS- To meet the parameters PLD(% leaking coolers), PLL (% leaking lids), PLO (% leaking off take), of the notified standards under EPA within three years by December 2005). Industry will submit time bound action plan and PER Chart along with the Bank Guarantee for the implementation or the time.  To rebuild at least 40% of the coke oven batteries in next 10 years (by December 2012).	NA
2	STEEL MELTING SHOP- Fugitive emissions- To reduce 30% by March 2004 and 100% by March 2008 (including installation of secondary dedusting facilities).	Fugitive emission is under control with PCD
3	BLAST FURNACE- Direct inject of reducing agents by June 2013.	NA

SHYAM STEEL HOOUSTRES LTD. I



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210883634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itirclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-080822-03 (Page-1 of 2)

## TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-080822-03

Issue Date: 12/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn By

Date of Sampling

Sample Description Sampling Location

Sampling Plan & Procedure

Analysis Duration

Sampling Instrument Used

Weather Condition

ITS Representative

06/08/2022 To 07/08/2022

Ambient Air

RM Area

ITS/LAB/SOP-AAQ/08

08/08/2022 To 12/08/2022

Respirable Dust Sampler (PM10) Fine Particulate Sampler (PM2.5) With Gaseous Attachment

Clear

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	59.4	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	18.3	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	10.7	μg/m <sup>3</sup>	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	17.8	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	31.9	μg/m³	400			



AUTHORIZED



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-080822-03 (Page-2 of 2)

Carbon monoxide (as CO)	IS:5182 Part-X	0.37	mg/m <sup>3</sup>	4.0
Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
Ozone ( as O <sub>3</sub> )	IS:5182 Part-IX	13.1	μg/m³	180
Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
Arsenic ( as As)	APHA-AIR302	<1.0	ng /m³	6.0
	Lead(as Pb) Ozone (as O <sub>3</sub> ) Benzene (as C <sub>6</sub> H <sub>6</sub> ) Benzo (a) Pyrine Nickel (as Ni)	Lead(as Pb)         IS:5182 Part-XXII           Ozone (as O <sub>3</sub> )         IS:5182 Part-IX           Benzene (as C <sub>6</sub> H <sub>6</sub> )         IS:5182 Part-XI           Benzo (a) Pyrine         IS:5182 Part-XI           Nickel (as Ni)         APHA-AIR420	Lead(as Pb)         IS:5182 Part-XXII         <1.0	Lead(as Pb)       IS:5182 Part-XXII       <1.0

AUTHORIZED SIGNATORY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634





Report Code AAQ-080622-04 (Page-1 of 2)

## TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-080622-04

Issue Date: 12/06/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

06/06/2022 To 07/06/2022

Sample Description

Ambient Air

Sampling Location

RM Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

08/06/2022 To 12/06/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM2.5) With Gaseous Attachment

Weather Condition

Clear

4011022774	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	59.5	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	18.2	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	10.8	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	17.6	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	31.8	μg/m³	400			

AUTHORIZED SIGNATORY

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-080622-04 (Page-2 of 2)

Carbon monoxide (as CO)	IS:5182 Part-X	0.37	mg/m <sup>3</sup>	4.0
Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	13.0	μg/m³	180
Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
Arsenic ( as As)	APHA-AIR302	<1.0	ng/m³	6.0
	Lead(as Pb) Ozone (as O <sub>3</sub> ) Benzene (as C <sub>6</sub> H <sub>6</sub> ) Benzo (a) Pyrine Nickel (as Ni)	Lead(as Pb)         IS:5182 Part-XXII           Ozone (as O <sub>3</sub> )         IS:5182 Part-IX           Benzene (as C <sub>6</sub> H <sub>6</sub> )         IS:5182 Part-XI           Benzo (a) Pyrine         IS:5182 Part-XI           Nickel (as Ni)         APHA-AIR420	Lead(as Pb)         IS:5182 Part-XXII         <1.0	

AUTHORIZED



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P. M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001; 2015, ISO 14001;2015, ISO 45001;2018 Certified Laboratory)



TC-6179

Report Code AAQ-080422-04 (Page-1 of 2)

## TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-080422-04

Issue Date: 12/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

ITS Representative

Date of Sampling

06/04/2022 To 07/04/2022

Sample Description

Ambient Air

Sampling Location

RM Area

Sampling Plan &Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

08/04/2022 To 12/04/2022

Sampling Instrument Used

Respirable Dust Sampler (PM10) Fine Particulate Sampler (PM25) With Gaseous Attachment

Clear

Weather Condition

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	57.7	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	16.5	μg /m <sup>3</sup>	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	9.4	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	15.4	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	34.2	μg/m³	400			

AUTHOR ORY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in. Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-080422-04 (Page-2 of 2)

Carbon monoxide (as CO)	IS:5182 Part-X	0.33	mg/m <sup>3</sup>	4.0
Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	12.4	μg/m³	180
Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
Arsenic ( as As)	APHA-AIR302	<1.0	ng/m³	6.0
	Lead(as Pb) Ozone (as O <sub>3</sub> ) Benzene (as C <sub>6</sub> H <sub>0</sub> ) Benzo (a) Pyrine Nickel (as Ni)	Lead(as Pb)         IS:5182 Part-XXII           Ozone (as O <sub>3</sub> )         IS:5182 Part-IX           Benzene (as C <sub>6</sub> H <sub>0</sub> )         IS:5182 Part-XI           Benzo (a) Pyrine         IS:5182 Part-XI           Nickel (as Ni)         APHA-AIR420	Lead(as Pb)         IS:5182 Part-XXII         <1.0	Lead(as Pb)         IS:5182 Part-XXII         <1.0         μg /m²           Ozone (as O₃)         IS:5182 Part-IX         12.4         μg /m³           Benzene (as C₀H₀)         IS:5182 Part-XI         <1.0

AUTHOE TORY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-120822-04 (Page-1 of 2)

#### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-120822-04

Issue Date: 15/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

09/08/2022 To 10/08/2022

Sample Description

Ambient Air

Sampling Location

SMS Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

12/08/2022 To 15/08/2022

Sampling Instrument Used

Respirable Dust Sampler (PM10) Fine Particulate Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition

0	ear
	cai

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	55.9	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	23.7	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.0	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	18.8	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	36.9	μg/m³	400			

AUTHORIZED

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-120822-04 (Page-2 of 2)

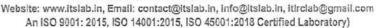
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.27	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg /m³	1.0
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	12.9	μg /m³	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg /m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic ( as As)	APHA-AIR302	<1.0	ng/m³	6.0

CHECKED BY

AUTHORIZED SIGNATORY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634





Report Code AAQ-120622-07 (Page-1 of 2)

Issue Date: 15/06/2022

#### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-120622-07

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn By ITS Representative

Date of Sampling 09/06/2022 To 10/06/2022

Sample Description Ambient Air Sampling Location SMS Area

Sampling Plan & Procedure ITS/LAB/SOP-AAQ/08 Analysis Duration 12/06/2022 To 15/06/2022

Sampling Instrument Used Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition Clear

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	55.9	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	23.7	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.0	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	18.8	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	36.9	$\mu g/m^3$	400			

AUTHORIZED



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-120622-07 (Page-2 of 2)

6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.29	mg/m <sup>3</sup>	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone ( as O <sub>3</sub> )	IS:5182 Part-IX	12.8	μg/m³	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0



Laboratory: A-91, Sector-80, Phase-2, Nolda, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



Report Code AAQ-120422-07 (Page-1 of 2)

### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-120422-07

Issue Date: 15/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

09/04/2022 To 10/04/2022

Sample Description

Ambient Air

Sampling Location

SMS Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration Sampling Instrument Used 12/04/2022 To 15/04/2022

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM25) With Gaseous Attachment

Weather Condition

Clear

1000	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	52.4	μg/m <sup>3</sup>	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	21.4	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	10.2	μg /m <sup>3</sup>	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	16.2	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	31.4	μg/m³	400			

**AUTHO** 

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-120422-07 (Page-2 of 2)

		and the second of the second o			
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.24	mg/m <sup>3</sup>	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone ( as O <sub>2</sub> )	IS:5182 Part-IX	12.5	μg/m³	180
9.	Benzene ( as C <sub>0</sub> H <sub>0</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0

AUTHORIZ



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634
Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-060822-07 (Page-1 of 2)

## TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-060822-07

Issue Date: 11/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn By

: ITS Representative

Date of Sampling

04/08/2022 To 05/08/2022

Sample Description

Ambient Air

Sampling Location

Near Main Gate

Sampling Location
Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

06/08/2022 To 11/08/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition

Clear

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	64.7	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	25.3	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	12.8	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	20.2	μg/m <sup>3</sup>	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	36.2	μg/m³	400			

CHECKED BY

AUTHORIZED SIGNATORY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-060822-07 (Page-2 of 2)

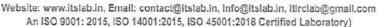
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.37	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	15.8	μg/m³	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic ( as As)	APHA-AIR302	<1.0	ng/m³	6.0

Phowb-CHECKED BY

AUTHORIZED SIGNATORY



Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634





Report Code AAQ-060622-01 (Page-1 of 2)

## TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-060622-01

Issue Date: 11/06/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

: ITS Representative

Date of Sampling

04/06/2022 To 05/06/2022

Sample Description

Ambient Air

Sampling Location

Near Main Gate

Sampling Plan &Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

06/06/2022 To 11/06/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition

: Clear

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	64.6	$\mu g/m^3$	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	25.5	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	12.7	μg/m³	80			
4,	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	20.1	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	36.0	μg/m³	400			

CHECKED BY

AUTHORIZED SIGNATORY

Terms & Conditions

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.
4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-060622-01 (Page-2 of 2)

6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.38	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	15.7	μg/m³	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0

AUTHORIZE



Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634

Websita: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



TC-6179

Report Code AAQ-060422-01 (Page-1 of 2)

## TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-060422-01

Issue Date: 11/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

ITS Representative

Date of Sampling

04/04/2022 To 05/04/2022

Sample Description

Ambient Air

Sampling Location

Near Main Gate

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

06/04/2022 To 11/04/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM25) With Gaseous Attachment

Weather Condition

Clear

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	60.2	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	21.2	μg /m <sup>3</sup>	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	10.4	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	17.4	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	32.4	μg/m³	400			

CHECKED BY

AUTHORIZED SIGNATORY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAO-060422-01 (Page-2 of 2)

6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.31	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone ( as O <sub>3</sub> )	IS:5182 Part-IX	14.2	μg/m³	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg /m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic ( as As)	APHA-AIR302	<1.0	ng/m³	6.0

CHECKED B

AUTHOI ATORY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)

M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-110822-02 (Page-1 of 2)

#### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-110822-02

Issue Date: 14/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn By : ITS Representative

Date of Sampling : 08/08/2022 To 09/08/2022

Sample Description : Ambient Air Sampling Location : DRI Area

Sampling Plan & Procedure : ITS/LAB/SOP-AAQ/08 Analysis Duration : 11/08/2022 To 14/08/2022

Sampling Instrument Used : Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM25) With Gaseous Attachment

Weather Condition : Clear

· · · · · · · · · · · · · · · · · · ·	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	60.3	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	18.8	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	11.3	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	21.9	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	32.0	$\mu g/m^3$	400			

CHECKED BY

AUTHORIZED SIGNATORY



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-110822-02 (Page-2 of 2)

6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.41	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	13.3	μg/m³	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



Report Code AAQ-110622-06 (Page-1 of 2)

## TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-110622-06

Issue Date: 14/06/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

## SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

08/06/2022 To 09/06/2022

Sample Description

Ambient Air

Sampling Location

DRI Area

Sampling Plan &Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

11/06/2022 To 14/06/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM25) With Gaseous Attachment

Weather Condition

Clear

	TEST RESULT								
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.				
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	60.2	μg/m³	100				
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	18.7	μg/m³	60				
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	11.1	μg/m³	80				
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	21.7	μg/m³	80				
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	32.0	μg/m³	400				

CHECKED B



Report Code AAQ-110622-06 (Page-2 of 2)

6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.40	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	13.2	μg/m³	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic ( as As)	APHA-AIR302	<1.0	ng/m³	6.0



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in. itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



TC-6179

Report Code AAQ-110422-06 (Page-1 of 2)

# TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-110422-06

Issue Date: 14/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

# SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

08/04/2022 To 09/04/2022

Sample Description

Ambient Air

Sampling Location

DRI Area

Sampling Plan & Procedure

Analysis Duration

ITS/LAB/SOP-AAO/08 11/04/2022 To 14/04/2022

Sampling Instrument Used

Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM2 s) With Gaseous Attachment

Weather Condition

Clear

1111	TEST RESULT								
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.				
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	58.7	μg/m <sup>3</sup>	100				
2.	Particulate Matter (PM25)	CPCB Volume – 1 / Gravimetric	17.5	μg/m³	60				
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	9.9	μg/m³	80				
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	17.2	μg/m³	80				
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	33.4	μg/m <sup>3</sup>	400				

AUTHORA

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-110422-06 (Page-2 of 2)

6.	Carbon monoxide (as CO)	1S:5182 Part-X	0.45	mg/m <sup>3</sup>	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone ( as O <sub>3</sub> )	IS:5182 Part-IX	13.8	μg/m³	180
9.	Benzene ( as C <sub>0</sub> H <sub>0</sub> )	IS:5182 Part-XI	<1.0	μg /m <sup>3</sup>	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic ( as As)	APHA-AIR302	<1.0	ng/m³	6.0

AUTHORI A'TORY



# ITS LABORATORY

Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634
Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-090822-01 (Page-1 of 2)

# TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-090822-01

Issue Date: 13/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

## **SAMPLING & ANALYSIS DATA**

Sample Drawn By

Date of Sampling

Sample Description

Sampling Location Sampling Plan &Procedure

Analysis Duration

Sampling Instrument Used

Nitrogen dioxide (as NO2)

Ammonia (as NH<sub>3</sub>)

Weather Condition

: ITS Representative

07/08/2022 To 08/08/2022

Ambient Air

CPP Area

Clear

: ITS/LAB/SOP-AAQ/08

09/08/2022 To 13/08/2022

Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM2.5) With Gaseous Attachment

19.4

28.6

TEST RESULT Limits as per S.No. Parameter Test Method Results Units Environment (Protection) Act. Particulate Matter (PM<sub>10</sub>) IS:5182 Part-XXIII 62.5 μg/m³ 100 2. Particulate Matter (PM<sub>2.5</sub>) CPCB Volume - 1 / 27.7  $\mu g/m^3$ 60 Gravimetric 3. Sulphur dioxide (as SO<sub>2</sub>) IS:5182 Part-II  $\mu g/m^3$ 12.7 80

IS:5182 Part-VI

APHA-AIR402

CHECKED BY

4.

AUTHORIZED SIGNATORY

 $\mu g/m^3$ 

 $\mu g/m^3$ 

80

400



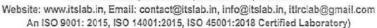
Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com

An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

# Report Code AAQ-090822-01 (Page-2 of 2)

				[2] (2.1) - [2.1] (2.1) [2.1] (2.1) [2.1] (2.1) [2.1] (2.1) [2.1] (2.1) (2.1) (2.1)
Carbon monoxide (as CO)	IS:5182 Part-X	0.36	mg/m³	4.0
Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	14.8	μg/m³	180
Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0
	Lead(as Pb)  Ozone (as O <sub>3</sub> )  Benzene (as C <sub>6</sub> H <sub>6</sub> )  Benzo (a) Pyrine  Nickel (as Ni)	Lead(as Pb)         IS:5182 Part-XXII           Ozone (as O <sub>3</sub> )         IS:5182 Part-IX           Benzene (as C <sub>6</sub> H <sub>6</sub> )         IS:5182 Part-XI           Benzo (a) Pyrine         IS:5182 Part-XI           Nickel (as Ni)         APHA-AIR420	Lead(as Pb)       IS:5182 Part-XXII       <1.0	Lead(as Pb)       IS:5182 Part-XXII       <1.0







Report Code AAQ-090622-05 (Page-1 of 2)

# TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-090622-05

Issue Date: 13/06/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

07/06/2022 To 08/06/2022

Sample Description

Ambient Air

Sampling Location

CPP Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

09/06/2022 To 13/06/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM2.5) With Gaseous Attachment

Clear

Weather Condition

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	62.7	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	27.5	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	12.8	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	19.6	μg /m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	28.7	μg/m³	400			



Report Code AAQ-090622-05 (Page-2 of 2)

					1 0
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.35	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone ( as O <sub>3</sub> )	IS:5182 Part-IX	14.6	μg /m <sup>3</sup>	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng /m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0
12.	Arsenic (as As)	APHA-AIK302	<1.0	ng/m	

AUTHORIZE





TC-6179

Report Code AAQ-090422-05 (Page-1 of 2)

# TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-090422-05

Issue Date: 13/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

# SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

07/04/2022 To 08/04/2022

Sample Description

Ambient Air

Sampling Location

CPP Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration Sampling Instrument Used

09/04/2022 To 13/04/2022

Respirable Dust Sampler (PM10) Fine Particulate Sampler (PM2.5) With Gaseous Attachment

Weather Condition

Clear

TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.		
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	59.2	$\mu g/m^3$	100		
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	23.2	μg/m³	60		
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	10.5	μg/m³	80		
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	17.4	μg/m³	80		
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	32.4	μg/m <sup>3</sup>	400		

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAO-090422-05 (Page-2 of 2)

6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.40	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone ( as O <sub>3</sub> )	IS:5182 Part-IX	12.1	μg/m³	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0

\* ITS LABORATOR AUTHOR TORY



Report Code SE-080822-12 (Page-1 of 2)

# TEST REPORT

Stack Emission Analysis

Report Code: SE-080822-12 Issue Date: 12/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn on 06/08/2022

Sample Drawn By ITS Representative Sample Description Stack Emission Sampling Time 60 Minutes Sampling Plan & Procedure SOP/SE/09

Analysis Duration 08/08/2022 To 12/08/2022

Ambient Temperature (°C) 37.0 Stack Temperature (°C) 94.0

Source of Emission Stack Attached to Induction Furnace

Type of Fuel used Electricity Operating Load Normal Metal Circular Type of Stack

Stack Height from Ground Level (meter) 24.0 Average Velocity of Flue Emission (m/s) 11.0 Quantity of Emission Discharged (m<sup>3</sup>/hr) 37035.40

	TEST RESULT								
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)				
1.	Particulate Matter (PM)	IS:11255(Part-1)	12.9	mg/Nm <sup>3</sup>	•				
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	8.4	mg/Nm <sup>3</sup>	-				
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	14.6	mg/Nm <sup>3</sup>	Not Specified				

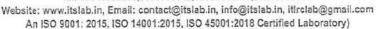


Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code SE-080822-12(Page-2 of 2)

4	CarbonMonoxide(CO)	IS:13270	0.16	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	1.95	% by Vol.	Not Specified







Report Code SE-080622-03 (Page-1 of 2)

# TEST REPORT

Stack Emission Analysis

Report Code: SE-080622-03 Issue Date: 12/06/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

06/06/2022 Sample Drawn on

ITS Representative Sample Drawn By Stack Emission Sample Description Sampling Time 60 Minutes SOP/SE/09

Sampling Plan & Procedure 08/06/2022 To 12/06/2022 Analysis Duration

37.0 Ambient Temperature (°C) Stack Temperature (°C) 94.0

Source of Emission Stack Attached to Induction Furnace

Electricity Type of Fuel used Normal Operating Load Metal Circular Type of Stack

24.0 Stack Height from Ground Level (meter) Average Velocity of Flue Emission (m/s) 11.0 37031.40 Quantity of Emission Discharged (m<sup>3</sup>/hr)

	TEST RESULT								
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)				
1.	Particulate Matter (PM)	IS:11255(Part-1)	12.8	mg/Nm <sup>3</sup>	-				
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	8.2	mg/Nm <sup>3</sup>					
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	14.7	mg/Nm <sup>3</sup>	Not Specified				



Report Code SE-080622-03 (Page-2 of 2)

4	CarbonMonoxide(CO)	IS:13270	0.15	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	1.97	% by Vol.	Not Specified

AUTHORIZED





Report Code SE-080422-03 (Page-1 of 2)

# TEST REPORT

Stack Emission Analysis

Report Code: SE-080422-03

Issue Date: 12/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

## SAMPLING & ANALYSIS DATA

Sample Drawn on 06/04/2022

Sample Drawn By ITS Representative Sample Description Stack Emission Sampling Time 60 Minutes

Sampling Plan & Procedure SOP/SE/09

Analysis Duration 08/04/2022 To 12/04/2022

Ambient Temperature (°C) 39.0 Stack Temperature (°C) 88.0

Source of Emission Stack Attached to Induction Furnace

Type of Fuel used Electricity Operating Load Normal Type of Stack Metal Circular

Stack Height from Ground Level (meter) 24.0 Average Velocity of Flue Emission (m/s) 10.5 Quantity of Emission Discharged (m<sup>3</sup>/hr) 36432.2

	TEST RESULT								
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)				
1.	Particulate Matter (PM)	IS:11255(Part-1)	14.2	mg/Nm <sup>3</sup>	-				
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	9.8	mg/Nm <sup>3</sup>					
3.	Nitrogen Dioxide (NO2)	IS:11255(Part-7)	12.4	mg/Nm <sup>3</sup>	Not Specified				

AUTHOR

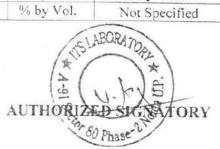


Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, ittrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code SE-080422-03 (Page-2 of 2)

4	CarbonMonoxide(CO)	IS:13270	0.20	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	2.10	% by Vol.	Not Specified







Report Code SE-070822-10(Page-1 of 2)

# TEST REPORT

Stack Emission Analysis

Report Code: SE-070822-10

Issue Date: 11/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

## SAMPLING & ANALYSIS DATA

Sample Drawn on

05/08/2022

Sample Drawn By

ITS Representative

Sample Description

Stack Emission

Sampling Time

60 Minutes

Sampling Plan & Procedure

SOP/SE/09

Analysis Duration

07/08/2022 To 11/08/2022

Ambient Temperature (°C)

37.0

Stack Temperature (°C)

75.0

Source of Emission

Stack Attached to Cooler Discharge

Type of Fuel used

Coal

Operating Load

Normal

Type of Stack

Metal Circular

Stack Height from Ground Level (meter) Average Velocity of Flue Emission (m/s)

24.0

7.9

Quantity of Emission Discharged (m<sup>3</sup>/hr)

7159.05

	TEST RESULT							
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)			
1.	Particulate Matter (PM)	IS:11255(Part-1)	41.2	mg/Nm <sup>3</sup>				
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	14.3	mg/Nm <sup>3</sup>	_			
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	21.7	mg/Nm <sup>3</sup>	Not Specified			

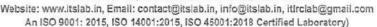




Report Code SE-070822-10(Page-2 of 2)

		,			
4	CarbonMonoxide(CO)	IS:13270	0.12	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	. 1.26	% by Vol.	Not Specified







Report Code SE-070622-01 (Page-1 of 2)

# TEST REPORT

Stack Emission Analysis

Report Code: SE-070622-01

Issue Date: 11/06/2022

Issued To:

M/S. Shvam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn on 05/06/2022

Sample Drawn By ITS Representative Sample Description Stack Emission Sampling Time 60 Minutes

Sampling Plan & Procedure SOP/SE/09

Analysis Duration 07/06/2022 To 11/06/2022

Ambient Temperature (°C) 37.0 Stack Temperature (°C) 75.0

Source of Emission Stack Attached to Cooler Discharge

Type of Fuel used Coal Operating Load Normal

Metal Circular Type of Stack

Stack Height from Ground Level (meter) 24.0 Average Velocity of Flue Emission (m/s) 7.9 Quantity of Emission Discharged (m<sup>3</sup>/hr) 7159.05

	TEST RESULT								
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)				
1.	Particulate Matter (PM)	IS:11255(Part-1)	41.0	mg/Nm <sup>3</sup>	=				
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	14.1	mg/Nm <sup>3</sup>	-				
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	21.8	mg/Nm <sup>3</sup>	Not Specified				

AUTHORIZED



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code SE-070622-01 (Page-2 of 2)

4	CarbonMonoxide(CO)	IS:13270	0.12	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	1.26	% by Vol.	Not Specified



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itirclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



TC-6179

Report Code SE-070422-01 (Page-1 of 2)

# TEST REPORT

Stack Emission Analysis

Report Code: SE-070422-01

Issue Date: 11/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn on 05/04/2022

Sample Drawn By ITS Representative Sample Description Stack Emission Sampling Time 60 Minutes

Sampling Plan &Procedure SOP/SE/09

Analysis Duration 07/04/2022 To 11/04/2022

Ambient Temperature (°C) 39.0 Stack Temperature (°C) 80.0

Source of Emission Stack Attached to Cooler Discharge

Type of Fuel used Coal Operating Load Normal Type of Stack

Metal Circular Stack Height from Ground Level (meter) 24.0

Average Velocity of Flue Emission (m/s) 7.4 Quantity of Emission Discharged (m<sup>3</sup>/hr) : 7426.86

	TEST RESULT								
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)				
1.	Particulate Matter (PM)	IS:11255(Part-1)	35.4	mg/Nm <sup>3</sup>	-				
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	10.5	mg/Nm <sup>3</sup>	-				
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	17.5	mg/Nm <sup>3</sup>	Not Specified				

AUTHO TORY

Terms & Conditions



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

# Report Code SE-070422-01 (Page-2 of 2)

4	CarbonMonoxide(CO)	IS:13270	0.09	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	1.11	% by Vol.	Not Specified

AUTHORIZ



# ITS LABORATORY

Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634
Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itirclab@gmail.com
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code SE-090822-06 (Page-1 of 2)

### TEST REPORT

Stack Emission Analysis

Report Code: SE-090822-06

Issue Date: 13/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn on : 07/08/2022

Sample Drawn By : ITS Representative
Sample Description : Stack Emission
Sampling Time : 60 Minutes

Sampling Plan &Procedure : SOP/SE/09

Analysis Duration : 09/08/2022 To 13/08/2022

Ambient Temperature (°C) : 37.0 Stack Temperature (°C) : 92.0

Source of Emission : Stack Attached to Rotary Kiln

Type of Fuel used : Coal
Operating Load : Normal
Type of Stack : Metal Circular

Stack Height from Ground Level (meter) : 39.0

Average Velocity of Flue Emission (m/s) : 6.8

Quantity of Emission Discharged (m<sup>3</sup>/hr) : 6546.00

	TEST RESULT								
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)				
1.	Particulate Matter (PM)	IS:11255(Part-1)	24.9	mg/Nm <sup>3</sup>	=				
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	12.6	mg/Nm <sup>3</sup>	-				
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	16.8	mg/Nm <sup>3</sup>	Not Specified				

CHECKED BY



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

# Report Code SE-090822-06 (Page-2 of 2)

4	CarbonMonoxide(CO)	IS:13270	0.11	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	1.20	% by Vol.	Not Specified







Report Code SE-090622-04 (Page-1 of 2)

# TEST REPORT

Stack Emission Analysis

Report Code: SE-090622-04

Issue Date: 13/06/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn on 07/06/2022

Sample Drawn By ITS Representative Stack Emission Sample Description 60 Minutes Sampling Time

SOP/SE/09 Sampling Plan & Procedure

09/06/2022 To 13/06/2022 Analysis Duration

37.0 Ambient Temperature (°C) Stack Temperature (°C) 92.0

Source of Emission Stack Attached to Rotary Kiln

Type of Fuel used Coal Normal Operating Load Metal Circular Type of Stack

Stack Height from Ground Level (meter) 39.0 Average Velocity of Flue Emission (m/s) 6.8 Quantity of Emission Discharged (m<sup>3</sup>/hr) 6546.00

	TEST RESULT							
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)			
1.	Particulate Matter (PM)	IS:11255(Part-1)	24.8	mg/Nm <sup>3</sup>	-			
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	12.4	mg/Nm <sup>3</sup>	-			
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	16.6	mg/Nm <sup>3</sup>	Not Specified			

AUTHORIZED



Report Code SE-090622-04 (Page-2 of 2)

4	CarbonMonoxide(CO)	IS:13270	0.11	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	1.20	% by Vol.	Not Specified

AUTHORIZ





TC-6179

Report Code SE-090422-04 (Page-1 of 2)

### TEST REPORT

Stack Emission Analysis

Report Code: SE-090422-04

Issue Date: 13/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

# SAMPLING & ANALYSIS DATA

Sample Drawn on 07/04/2022

Sample Drawn By ITS Representative Sample Description Stack Emission Sampling Time 60 Minutes

Sampling Plan & Procedure SOP/SE/09

Analysis Duration 09/04/2022 To 13/04/2022

Ambient Temperature (°C) 40.0 Stack Temperature (°C) 98.0

Source of Emission Stack Attached to Rotary Kiln

Type of Fuel used Coal Operating Load Normal Type of Stack Metal Circular

Stack Height from Ground Level (meter) 39.0 Average Velocity of Flue Emission (m/s) 6.5 Quantity of Emission Discharged (m<sup>3</sup>/hr) 6618.81

	TEST RESULT							
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)			
1.	Particulate Matter (PM)	IS:11255(Part-1)	20.6	mg/Nm <sup>3</sup>	NEO NEO			
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	10.1	mg/Nm <sup>3</sup>	-			
3.	Nitrogen Dioxide (NO2)	IS:11255(Part-7)	13.2	mg/Nm <sup>3</sup>	Not Specified			

AUTHORIZ

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

# Report Code SE-090422-04 (Page-2 of 2)

			CONTROL		
4	CarbonMonoxide(CO)	IS:13270	0.08	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	1.15	% by Vol.	Not Specified

AUTHORIZ



Report Code SE-080822-11 (Page-1 of 2)

# TEST REPORT

Stack Emission Analysis

Report Code: SE-080822-11

Issue Date: 12/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

### **SAMPLING & ANALYSIS DATA**

Sample Drawn on 06/08/2022

Sample Drawn By ITS Representative Sample Description Stack Emission Sampling Time 60 Minutes Sampling Plan & Procedure SOP/SE/09

Analysis Duration 08/08/2022 To 12/08/2022

Ambient Temperature (°C) 37.0 Stack Temperature (°C) 215.0

Source of Emission Stack Attached to CPP

Type of Fuel used Coal Operating Load Normal Type of Stack Metal Circular

Stack Height from Ground Level (meter) 69.0 Average Velocity of Flue Emission (m/s) 7.1

Quantity of Emission Discharged (m<sup>3</sup>/hr) 124460.97

TEST RESULT							
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)		
1.	Particulate Matter (PM)	IS:11255(Part-1)	51.4	mg/Nm <sup>3</sup>	-		
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	14.7	mg/Nm <sup>3</sup>	-		
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	20.9	mg/Nm <sup>3</sup>	Not Specified		

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.

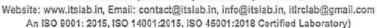


Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code SE-080822-11 (Page-2 of 2)

4	CarbonMonoxide(CO)	IS:13270	0.11	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	0.23	% by Vol.	Not Specified







TC-6179

Report Code SE-080622-02 (Page-1 of 2)

# TEST REPORT

Stack Emission Analysis

Report Code: SE-080622-02

Issue Date: 12/06/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn on 06/06/2022

Sample Drawn By ITS Representative Sample Description Stack Emission Sampling Time 60 Minutes

Sampling Plan & Procedure SOP/SE/09 Analysis Duration 08/06/2022 To 12/06/2022

Ambient Temperature (°C) 37.0 Stack Temperature (°C) 215.0

Source of Emission Stack Attached to CPP

Type of Fuel used Coal Operating Load Normal Type of Stack Metal Circular

Stack Height from Ground Level (meter) 69.0 Average Velocity of Flue Emission (m/s) 7.1

124460.97 Quantity of Emission Discharged (m<sup>3</sup>/hr)

	TEST RESULT							
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)			
1.	Particulate Matter (PM)	IS:11255(Part-1)	51.7	mg/Nm <sup>3</sup>	-			
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	14.5	mg/Nm <sup>3</sup>	-			
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	20.8	mg/Nm <sup>3</sup>	Not Specified			



Report Code SE-080622-02 (Page-2 of 2)

4	CarbonMonoxide(CO)	IS:13270	0.10	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	0.22	% by Vol.	Not Specified





TC-6179

Report Code SE-080422-02 (Page-1 of 2)

### TEST REPORT

Stack Emission Analysis

Report Code: SE-080422-02

Issue Date: 12/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn on 06/04/2022

Sample Drawn By ITS Representative Sample Description Stack Emission

Sampling Time 60 Minutes Sampling Plan & Procedure SOP/SE/09

Analysis Duration 08/04/2022 To 12/04/2022

Ambient Temperature (°C) 39.0 Stack Temperature (°C) 228.0

Source of Emission Stack Attached to CPP

Type of Fuel used Coal Operating Load Normal Type of Stack Metal Circular

Stack Height from Ground Level (meter) 69.0 Average Velocity of Flue Emission (m/s) 6.7

Quantity of Emission Discharged (m<sup>3</sup>/hr) 124017.0

	TEST RESULT							
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)			
1.	Particulate Matter (PM)	IS:11255(Part-1)	47.4	mg/Nm <sup>3</sup>	-			
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	11.9	mg/Nm <sup>3</sup>	-			
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	17.2	mg/Nm <sup>3</sup>	Not Specified			

AUTHOR

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code SE-080422-02 (Page-2 of 2)

4	CarbonMonoxide(CO)	IS:13270	0.07	% by Vol.	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	0.19	% by Vol.	Not Specified

W SUBORATORY AUTHORIO



# TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-060822-08

Issue Date: 11/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

# SAMPLING & ANALYSIS DATA

Sample Drawn By

Date of Sampling

Sample Description

Sampling Location

Sampling Duration Sampling Plan & Procedure

Analysis Duration

Sampling Instrument Used

Weather Condition

ITS Representative

04/08/2022

Fugitive Air

Near Product House

6 Hours.

Clear

ITS/LAB/SOP-AAQ/08

06/08/2022 To 11/08/2022

Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM25) With Gaseous Attachment

TEST RESULT								
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	54.3	μg/m <sup>3</sup>	100			
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	154	μg/m³	600			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	12.4	μg/m <sup>3</sup>	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	21.1	μg/m <sup>3</sup>	80			

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to involced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



## TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-060622-02 Issue Date: 11/06/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

## SAMPLING & ANALYSIS DATA

Sample Drawn By ITS Representative

Date of Sampling 04/06/2022 Sample Description Fugitive Air

Sampling Location Near Product House

Sampling Duration 6 Hours.

Sampling Plan &Procedure ITS/LAB/SOP-AAQ/08 Analysis Duration 06/06/2022 To 11/06/2022

Sampling Instrument Used Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM2.5) With Gaseous Attachment

Weather Condition Clear

	TEST RESULT									
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act					
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	54.1	μg/m³	100					
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	152	μg/m³	600					
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	12.2	μg/m³	80					
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	21.0	μg/m³	80					

CHECKED/BY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



TC-6179

## TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-060422-02

Issue Date: 11/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

## **SAMPLING & ANALYSIS DATA**

Sample Drawn By

Date of Sampling

Sample Description Sampling Location

Sampling Duration

Sampling Plan &Procedure

Analysis Duration

Sampling Instrument Used

Weather Condition

ITS Representative

04/04/2022

Fugitive Air

Near Product House

6 Hours.

ITS/LAB/SOP-AAO/08

06/04/2022 To 11/04/2022

Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM25) With Gaseous Attachment

Clear

	TEST RESULT									
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act					
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	48.5	μg/m <sup>3</sup>	100					
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	144	μg/m³	600					
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	10.8	μg/m³	80					
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	19.1	μg/m <sup>3</sup>	80					

CHECKED B

AUTHOR



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

## TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-070822-09

Issue Date: 11/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

# SAMPLING & ANALYSIS DATA

Sample Drawn By

Date of Sampling Sample Description ITS Representative 05/082022

Fugitive Air

Sampling Location Sampling Duration

Near Raw Material Handling Yard (DRI)

6 Hours.

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

07/08/2022 To 11/08/2022

Sampling Instrument Used

Respirable Dust Sampler (PM10) Fine Particulate Sampler (PM2.5) With Gaseous Attachment

Clear

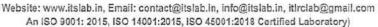
Weather Condition

All (Section Interpretation)	TEST RESULT									
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act					
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	68.7	μg/m <sup>3</sup>	100					
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	148.5	μg/m³	600					
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.0	μg/m³	80					
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	26.0	μg/m <sup>3</sup>	80					





Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634





## TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-070622-03

Issue Date: 11/06/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

# SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

05/06/2022

Sample Description

Fugitive Air

Sampling Location

Near Raw Material Handling Yard (DRI)

Sampling Duration

6 Hours.

Sampling Plan &Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration Sampling Instrument Used 07/06/2022 To 11/06/2022 Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition

Clear

	TEST RESULT										
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act						
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	68.9	μg/m³	100						
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	148.6	μg/m³	600						
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.0	μg/m³	80						
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	27.1	μg/m³	80						

CHECKED



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958349764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itirclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



TC-6179

## TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-070422-03

Issue Date: 11/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

# SAMPLING & ANALYSIS DATA

Sample Drawn By

Date of Sampling

Sample Description

Sampling Location

Sampling Duration

Sampling Plan & Procedure Analysis Duration

Sampling Instrument Used

Weather Condition

ITS Representative

05/04/2022

Fugitive Air

Near Raw Material Handling Yard (DRI)

6 Hours.

ITS/LAB/SOP-AAO/08

07/04/2022 To 11/04/2022

Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM25) With Gaseous Attachment

Clear

	TEST RESULT										
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act						
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	72.4	μg/m³	100						
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	141.2	μg/m <sup>3</sup>	600						
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	16.0	μg/m³	80						
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	25.4	μg/m³	80						

CHECKED



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

## TEST REPORT

Waste Water Sample Analysis

Report Code: WW-060822-13

Issue Date: 11/08/2022

Issue To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

: 04/08/2022

06/08/2022

ITS Representative

Drain of DRI Plant

5ltr. in Plastic Cane & 500ml in Glass Bottle

: 06/08/2022 To 11/08/2022

		TEST RESULTS			
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms
1.	pH	IS:3025(Part-11):1983	7.47	-	5.5 - 9.0
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	38.0	mg/l	100 max
3.	Chemical Oxygen Demand (as O <sub>2</sub> )	APHA 5220 B:2005	45.7	mg/l	250 max
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	16.4	mg/l	30 max
5.	Oil & grease	IS:3025(Part-39):1984	1.7	mg/l	10 max

Remark: CPCB- Central Pollution Control Board.

AUTHORIZED SIGNATORY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301. (U.P. M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



## TEST REPORT

Waste Water Sample Analysis

Report Code: WW-060622-01

Issue Date: 11/06/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215.

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

04/06/2022

06/06/2022

ITS Representative

Drain of DRI Plant

5ltr. in Plastic Cane & 500ml in Glass Bottle

06/06/2022 To 11/06/2022

	TEST RESULTS									
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms					
1.	pH	IS:3025(Part-11):1983	7.45	-	5.5 – 9.0					
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	38.0	mg/l	100 max					
3.	Chemical Oxygen Demand (as O <sub>2</sub> )	APHA 5220 B:2005	45.6	mg/1	250 max					
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	16.5	mg/l	30 max					
5.	Oil & grease	IS:3025(Part-39):1984	1.8	mg/1	10 max					

Remark: CPCB- Central Pollution Control Board.

CHECKED

**AUTHORIZED SIGNATORY** 



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

TC-6179

## TEST REPORT

Waste Water Sample Analysis

Report Code: WW-060422-01

Issue Date: 11/04/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

## SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

04/04/2022

06/04/2022

ITS Representative

Drain of DRI Plant

5ltr. in Plastic Cane & 500ml in Glass Bottle

06/04/2022 To 11/04/2022

	TEST RESULTS									
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms					
1.	pH	IS:3025(Part-11):1983	7.30		5.5 - 9.0					
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	30.0	mg/l	100 max					
3.	Chemical Oxygen Demand (as O <sub>2</sub> )	APHA 5220 B:2005	32.1	mg/l	250 max					
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	20.4	mg/l	30 max					
5.	Oil & grease	IS:3025(Part-39):1984	1.2	mg/l	10 max					

Remark: CPCB- Central Pollution Control Board.

AUTHOR



Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)

M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

## TEST REPORT

Waste Water Sample Analysis

Report Code: WW-060822-14

Issue Date: 11/08/2022

Issue To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

## SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

04/08/2022

06/082022

ITS Representative

Drain Near Security Gate

5ltr. in Plastic Cane & 500ml in Glass Bottle

: 06/08/2022 To 11/08/2022

		TEST RESULTS		₩ 7m2=24HHzs=4m	
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms
1.	pH	IS:3025(Part-11):1983	7.45	-	5.5 - 9.0
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	42.1	mg/l	100 max
3.	Chemical Oxygen Demand (as O <sub>2</sub> )	APHA 5220 B:2005	49.3	mg/l	250 max
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	17.5	mg/l	30 max
5.	Oil & grease	IS:3025(Part-39):1984	1.6	mg/l	10 max

Remark: CPCB- Central Pollution Control Board.

CHECKED BY

AUTHORIZED SIGNATORY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



## TEST REPORT

Waste Water Sample Analysis

Report Code: WW-060622-02

Issue Date: 11/06/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

04/06/2022

06/06/2022

ITS Representative

Drain Near Security Gate

5ltr. in Plastic Cane & 500ml in Glass Bottle

06/06/2022 To 11/06/2022

	TEST RESULTS									
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms					
1.	pH	IS:3025(Part-11):1983	7.45	-	5.5 - 9.0					
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	42.0	mg/l	100 max					
3.	Chemical Oxygen Demand (as O <sub>2</sub> )	APHA 5220 B:2005	49.2	mg/l	250 max					
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	17.5	mg/l	30 max					
5.	Oil & grease	IS:3025(Part-39):1984	1.5	mg/l	10 max					

Remark: CPCB- Central Pollution Control Board.

AUTHORIZED

Terms & Conditions:

Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test ports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P. M.: 09911659800,9305780312.09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com

An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



TC-6179

## TEST REPORT

Waste Water Sample Analysis

Report Code: WW-060422-02

Issue Date: 11/04/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

## SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

04/04/2022

06/04/2022

ITS Representative

Drain Near Security Gate

5ltr. in Plastic Cane & 500ml in Glass Bottle

06/04/2022 To 11/04/2022

	TEST RESULTS									
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms					
1.	pH	IS:3025(Part-11):1983	7.40	-	5.5 - 9.0					
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	48.0	mg/l	100 max					
3.	Chemical Oxygen Demand (as O <sub>2</sub> )	APHA 5220 B:2005	38.3	mg/l	250 max					
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	18.4	mg/l	30 max					
5.	Oil & grease	IS:3025(Part-39):1984	1.2	mg/l	10 max					

Remark: CPCB- Central Pollution Control Board.

Terms & Conditions:
1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.
4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: W-060822-15(Page- 1 of 2)

## TEST REPORT

Water Sample Analysis

Report Code: W-060822-15 Issue Date: 11/08/2022

Issue To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Received On 04/08/2022

Sample Drawn By ITS Representative

Sample Description Raw Water Storage Tank

Sample Drawn On 06/08/2022

Sample Quantity 4.0 Liter Plastic Bottle & 500ml in Glass Bottle.

Analysis Duration 06/08/2022 To 11/08/2022

S No	Parameters	Units		imits :10500-2012)	Danulta	T M . N 1
3.110.		Omis	Desirable Limit	Permissible Limit	Results	Test Method
1	Color	Hazen	5	15	<1.0	IS:3025(Pt-4)
2	Odour	-	Agreeable	Agreeable	Agreeable	IS:3025(Pt-5)
3	Turbidity	NTU	1	5	<1.0	IS:3025(Pt-10)
4	pH	-	6.5-8.5	No Relaxation	7.36	IS:3025(Pt-11)
5	Total Hardness (as CaCO3)	mg/l	200	600	52	IS:3025(Pt-21)
6	Iron (as Fe)	mg/l	0.3	No Relaxation	0.06	APHA22 <sup>nd</sup> Ed.,3120
7	Chlorides (as Cl)	mg/l	250	1000	13.5	IS:3025(Pt-32)
8	Fluoride (as F)	mg/l	ı	1.5	<0.1	APHA22 <sup>nd</sup> Ed.,4500 F (D)
9	TDS	mg/l	500	2000	127	1S:3025(Pt-16)
10	Calcium (as Ca <sup>2+</sup> )	mg/l	75	200	11.3	1S:3025(Pt-40)
11	Magnesium (as Mg <sup>2+</sup> )	mg/l	30	100	5.62	APHA22 <sup>nd</sup> Ed.,3500- Mg (B)
12	Sulphate (as SO4)	mg/l	200	400	12.0	IS:3025(Pt-24)
13	Free Residual Chlorine	mg/l	0.2	1	Nil	IS:3025(Pt-26)







Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: W-060822-15(Page- 2 of 2)

14	Copper (as Cu)	mg/l	0.05	1.5	ND	APHA22 <sup>nd</sup> Ed.,3120B/3111 B(AAS)
15	Cadmium(asCd)	mg/l	0.002	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3111 B (AAS)
16	Arsenic(asAs)	mg/l	0.01	0.05	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3114, AAS- VGA
17	Cyanide(asCN)	mg/l	0.04	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 4500CN
18	Lead(asPb)	mg/l	0.01	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3111 BAAS
19	Zinc(asZn)	mg/l	5	15 .	ND	APHA 22 <sup>nd</sup> Ed., 3120 B/3111 B (AAS)
20	Nickel(asNi)	mg/l	0.03	NoRelaxation	ND	APHA 3111 (B)
21	Chromium(asCr <sup>6+</sup> )	mg/l	0.04	NoRelaxation	ND	IS:3025(Pt-52)
22	Alkalinity(asCaCO <sub>3</sub> )	mg/l	192	600	70	IS:3025(Pt-23)
23	Aluminum(asAl)	mg/l	0.02	0.2	ND	APHA 22 <sup>nd</sup> Ed3120 B / 3111 B (AAS) / IS3025 (pt-55)
24	Conductivityat25°C	mS	Not Specified	NotSpecified	224	APHA 2510
25	Taste		Agreeable	Agreeable	Agreeable	IS:3025(Pt-8)
	BacteriologicalParamete	ers				
I	Total Coliform		MPN/100ml	Shall Not Be Detectable	NotDetected(<2)	IS:1622-1981(Reaff:2003)
2	E.coli	1	E.coli/100ml	Shall Not Be Detectable	Absent	IS:1622-1981(Reaff.2003)

ED SIGNATORY



Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



Report Code: W-060622-01 (Page- 1 of 2)

## TEST REPORT

Water Sample Analysis

Report Code: W-060622-01

Issue Date: 11/06/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

## SAMPLING & ANALYSIS DATA

Sample Received On

: 04/06/2022

Sample Drawn By

ITS Representative

Sample Description

Raw Water Storage Tank

Sample Drawn On

: 06/06/2022

Sample Quantity

4.0 Liter Plastic Bottle & 500ml in Glass Bottle.

Analysis Duration

: 06/06/2022 To 11/06/2022

S No	Parameters	Units	Limits (as per IS:10500-2012)		DV-		
S.140.		Units	Desirable Limit	Permissible Limit	Results	Test Method	
1	Color	Hazen	5	15	<1.0	IS:3025(Pt-4)	
2	Odour	-	Agreeable	Agreeable	Agreeable	IS:3025(Pt-5)	
3	Turbidity	NTU	1	5	<1.0	IS:3025(Pt-10)	
4	pH	- 1	6.5-8.5	No Relaxation	7.38	IS:3025(Pt-11)	
5	Total Hardness (as CaCO3)	mg/l	200	600	51	IS:3025(Pt-21)	
6	Iron (as Fe)	mg/l	0.3	No Relaxation	0.05	APHA22 <sup>nd</sup> Ed.,3120	
7	Chlorides (as Cl)	mg/l	250	1000	13.5	IS:3025(Pt-32)	
8	Fluoride (as F)	mg/l	1	1.5	<0.1	APHA22 <sup>nd</sup> Ed.,4500 F (D)	
9	TDS	mg/l	500	2000	128	IS:3025(Pt-16)	
10	Calcium (as Ca <sup>2+</sup> )	mg/l	75	200	11.2	IS:3025(Pt-40)	
11	Magnesium (as Mg <sup>2+</sup> )	mg/l	30	100	5.62	APHA22 <sup>nd</sup> Ed.,3500- Mg (B)	
12	Sulphate (as SO4)	mg/l	200	400	12.0	IS:3025(Pt-24)	
13	Free Residual Chlorine	mg/l	0.2	1	Nil	IS:3025(Pt-26)	

CHECKED BY

AUTHORIZED SIGNATORY



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: W-060622-01 (Page- 2 of 2)

2	E.coli		E.coli/100ml	Shall Not Be Detectable	Absent	IS:1622-1981(Reaff.2003)
1	Total Coliform		MPN/100ml	Shall Not Be Detectable	NotDetected(<2)	IS:1622-1981(Reaff.2003)
	BacteriologicalParamete	ers				
25	Taste	-	Agreeable	Agreeable	Agrecable	IS:3025(Pt-8)
24	Conductivityat25°C	mS	Not Specified	NotSpecified	224	APHA 2510
23	Aluminum(asAl)	mg/l	0.02	0.2	ND	APHA 22 <sup>nd</sup> Ed3120 B / 3111 B (AAS) / IS3025 (pt-55)
22	Alkalinity(asCaCO <sub>3</sub> )	mg/l	191	600	70	IS:3025(Pt-23)
21	Chromium(asCr <sup>6+</sup> )	mg/l	0.04	NoRelaxation	ND	IS:3025(Pt-52)
20	Nickel(asNi)	mg/l	0.03	NoRelaxation	ND	APHA 3111 (B)
19	Zinc(asZn)	mg/l	5	15	ND	APHA 22 <sup>nd</sup> Ed., 3120 B/ 3111 B (AAS)
18	Lead(asPb)	mg/l	0.01	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3111 BAAS
17	Cyanide(asCN)	mg/l	0.05	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 4500CN
16	Arsenic(asAs)	mg/l	0.01	0.05	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3114, AAS- VGA
15	Cadmium(asCd)	mg/l	0.002	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3111 B (AAS)
14	Copper (as Cu)	mg/l	0.05	1.5	ND	APHA22 <sup>nd</sup> Ed.,3120B/3111 B(AAS)

AUTHORIZED



Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.)
M.: 09911659800,9305780312,09958849764,07210888634
Vebsite: www.itslab.in, Email: contact@ttslab.in, info@itslab.in, ittralab@cmail.com

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



Report Code: W-060422-01 (Page- 1 of 2)

## TEST REPORT

Water Sample Analysis

Report Code: W-060422-01

Issue Date: 11/04/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

## SAMPLING & ANALYSIS DATA

Sample Received On

Sample Drawn By

Sample Description

Sample Drawn On

Sample Quantity Analysis Duration : 04/04/2022

ITS Representative

Raw Water Storage Tank

: 06/04/2022

4.0 Liter Plastic Bottle & 500ml in Glass Bottle.

: 06/04/2022 To 11/04/2022

s No	Parameters	Tinito	Limits (as per IS:10500-2012)				
5, 140.		Units	Desirable Limit	Permissible Limit	Results	Test Method	
1	Color	Hazen	5	15	1.0	IS:3025(Pt-4)	
2	Odour	-	Agreeable	Agreeable	Agreeable	IS:3025(Pt-5)	
3	Turbidity	NTU	1	5	0.62	IS:3025(Pt-10)	
4	pH	-	6.5-8.5	No Relaxation	7.50	IS:3025(Pt-11)	
5	Total Hardness (as CaCO3)	mg/l	200	600	55	IS:3025(Pt-21)	
6	Iron (as Fe)	mg/l	0.3	No Relaxation	0.05	APHA22 <sup>nd</sup> Ed.,3120	
7	Chlorides (as Cl)	mg/l	250	1000	12.0	IS:3025(Pt-32)	
8	Fluoride (as F)	mg/l	ì	1,5	0.2	APHA22 <sup>nd</sup> Ed.,4500 F	
9	TDS	mg/l	500	2000	135	IS:3025(Pt-16)	
10	Calcium (as Ca <sup>-</sup> )	mg/l	75	200	18	IS:3025(Pt-40)	
11	Magnesium (as Mg <sup>2-</sup> )	mg/l	30	100	18	APHA22 <sup>nd</sup> Ed.,3500- Mg (B)	
12	Sulphate (as SO4)	mg/l	200	400	62	IS:3025(Pt-24)	
13	Free Residual Chlorine	mg/l	0.2	1	Nil	IS:3025(Pt-26)	

CHECKED BY

AUTHORIZED SIGNATORY

Terms & Conditions

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764.07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: W-060422-01 (Page- 2 of 2)

2	E.coli		E.coli/100ml	Shall Not Be Detectable	Absent	IS:1622-1981(Reaff.2003)
1	Total Coliform		MPN/100mI	Shall Not Be Detectable	NotDetected(<2)	IS:1622-1981(Reaff.2003
	BacteriologicalParamete	ers				
25	Taste	*	Agreeable	Agreeable	Agreeable	IS:3025(Pt-8)
24	Conductivityat25°C	mS	Not Specified	NotSpecified	232	APHA 2510
23	Aluminum(asAl)	mg/l	0.02	0.2	ND	APHA 22 <sup>nd</sup> Ed3120 B / 3111 E (AAS) / IS3025 (pt-55)
22	Alkalinity(asCaCO3)	mg/l	191	600	74	IS:3025(Pt-23)
21	Chromium(asCr <sup>6-</sup> )	mg/l	0.04	NoRelaxation	ND	IS:3025(Pt-52)
20	Nickel(asNi)	mg/l	0.03	NoRelaxation	ND	APHA 3111 (B)
19	Zinc(asZn)	mg/l	5	15	ND	APHA 22 <sup>nd</sup> Ed., 3120 B/ 3111 B (AAS)
18	Lead(asPb)	mg/l	0.01	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3111 BAAS
17	Cyanide(asCN)	mg/l	0.05	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 4500CN
16	Arsenic(asAs)	mg/l	0.01	0.05	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3114, AAS- VGA
15	Cadmium(asCd)	mg/l	0.002	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3111 B (AAS)
14	Copper (as Cu)	mg/l	0.05	1.5	ND	APHA22 <sup>nd</sup> Ed.,3120B/3111 B(AAS)

AUTHORIZ



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-060822-17, Page 1 of 2

# TEST REPORT

Solid Waste Sample analysis

Report Code: SW: 060822-17

Issue Date: 11/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

06/08/2022

: 11/08/2022

Sample Received On Sample Drawn On

: 04/08/2022 Sample Drawn By ITS Representative Sampling Location : Slag Dumping Yard Sample Description : Solid Waste (CPP) Job Start Date : 06/08/2022

Job Completion date

**TEST RESULT** 

S. No.	Test Parameters	Protocol By TCLP	Results	Requirement / Limit As Per EPA Chapter- 7	
				Min.	Max.
1.	1.2Dichloroethane	EPA 5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
2.	2,4-D	EPA8151A	BDL(DL:0.1µg/l	-	10.0mg/l
3.	2,4,6Trichlorophenol	EPA 8041A	BDL(DL:0.1µg/l	-	2.0mg/l
4.	Benzene	EPA 5030C	BDL(DL:0.1µg/l	-	0.5mg/l
5.	Chloro Benzene	EPA 5030C	6.0	-	100.0mg/l
6.	CarbonTetraChloride	EPA 5030C	BDL(DL:0.1µg/l	-	0.5mg/l
7.	Chlorodane	EPA8081A	BDL(DL:0.1µg/l	-	0.03mg/l
8.	Chloroform	EPA5030C	BDL(DL:0.1µg/I	-	6.0mg/l
9.	1,1Dichloroethylene	EPA5030C	BDL(DL:0.1µg/l	-	0.07mg/l
10.	1,4Dichlorobenzene	EPA 5030C	BDL(DL:0.1µg/l	-	7.5mg/l
11.	2,4,5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent	-	1.0mg/l
12.	2,4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent	-	0.13mg/l
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l	-	200.0mg/l
14.	Hexachlorobutadiene	EPA5030C .	BDL(DL:0.1µg/l	-	0.5mg/l
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	-	3.0mg/l
16.	Hexachlorobenzene	EPA8081A	BDL(DL:0.1µg/l	-	0.13mg/l
17.	m-Cresol	EPA8041A	BDL(DL:0.1µg/l	-	200.0mg/l
18.	Methoxychlor	EPA8081A	BDL(DL:0.1µg/l		10.0mg/l
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent	-	200.0mg/l





Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

# Report Code: SW-060822-17, Page 2 of 2

20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	2	200.0mg/l
21.	p-Cresol	EPA8041A	BDL(DL:0.1µg/l)	4	200.0mg/I
22.	Pyridine	By GC-MS(DCM-Etraction)	Absent		5.0mg/l
23.	Tetrachloroethylene	EPA5030C	BDL(DL:0.1µg/l)		0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	2	0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
26.	2,4,5Trichlorophenol	EPA8081A	BDL(DL:0.1µg/l)	-	400.0mg/l
27.	Barium (as Ba)	EPA200.8	6.9	2	100.0mg/l
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1µg/l)	-	1.0mg/l
29.	Total Chromium (as Cr)	EPA200.8	0.27	-	5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/l)	Harris Tarana	5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0.1µg/l)	-	0.2mg/l
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1µg/l)	-	0.2mg/l
34.	Selenium (as Se)	EPA200.8	BDL(DL:0.1µg/l)	-	1.0mg/l
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
36.	Copper (as Cu)	EPA200.8	0.13 mg/l	-	
37.	Hexavalent Chromium (as Cr <sup>+6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	11 -	



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-060622-02, Page 1 of 2

# TEST REPORT

Solid Waste Sample analysis

Issued To : M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

Sample Received On : 06/06/2022 Sample Drawn On : 04/06/2022

Sample Drawn By

Sampling Location

Sample Description

: ITS Representative
: Slag Dumping Yard
: Solid Waste (CPP)

 Job Start Date
 : 06/06/2022

 Job Completion date
 : 11/06/2022

# **TEST RESULT**

S. No.	Test Parameters	Protocol By TCLP	Results	Requirement / Limit As Per EPA Chapter- 7	
				Min.	Max.
1.	1.2Dichloroethane	EPA 5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
2.	2,4-D	EPA8151A	BDL(DL:0.1µg/l	-	10.0mg/1
3.	2,4,6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/l	-	2.0mg/l
4.	Benzene	EPA5030C	BDL(DL:0.1µg/1	-	0.5mg/l
5.	Chloro Benzene	EPA5030C	6.0	-	100.0mg/l
6.	CarbonTetraChloride	EPA5030C	BDL(DL:0.1µg/l	_	0.5mg/l
7.	Chlorodane	EPA8081A	BDL(DL:0.1µg/l	_	0.03mg/l
8.	Chloroform	EPA5030C	BDL(DL:0.1µg/1	-	6.0mg/l
9.	1,1Dichloroethylene	EPA5030C	BDL(DL:0.1µg/l	-	0.07mg/l
10.	1,4Dichlorobenzene	EPA 5030C	BDL(DL:0.1µg/l	<del>                                     </del>	7.5mg/l
11.	2,4,5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent	-	1.0mg/l
12.	2,4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent	-	0.13mg/l
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l	-	200.0mg/l
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	-	3.0mg/l
16.	Hexachlorobenzene	EPA8081A	BDL(DL:0.1µg/l	-	0.13mg/l
17.	m-Cresol	EPA8041A	BDL(DL:0.1µg/l		200.0mg/l
18.	Methoxychlor	EPA8081A	BDL(DL:0.1µg/l		10.0mg/l
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent	_	200.0mg/l

Checked by

Authorized Signatory

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

## Report Code: SW-060622-02, Page 2 of 2

20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	-	200.0mg/l
21.	p-Cresol	EPA8041A	BDL(DL:0.1µg/l)	-	200.0mg/l
22.	Pyridine	By GC-MS(DCM-Etraction)	Absent	=	5.0mg/l
23.	Tetrachloroethylene	EPA5030C	BDL(DL:0.1µg/l)	-	0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	-	0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
26.	2,4,5Trichlorophenol	EPA8081A	BDL(DL:0.1µg/l)	-	400.0mg/l
27.	Barium (as Ba)	EPA200.8	6.9	_	100.0mg/l
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1µg/l)	-	1.0mg/l
29.	Total Chromium (as Cr)	EPA200.8	0.27		5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)		5.0mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/1)	-	5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0.1µg/l)	-	0.2mg/l
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1µg/l)		0.2mg/l
34.	Selenium (as Se)	EPA200.8	BDL(DL:0.1µg/l)		1.0mg/l
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1µg/l)	*	5.0mg/l
36.	Copper (as Cu)	EPA200.8	0.13 mg/l		_
37.	Hexavalent Chromium (as Cr <sup>+6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	-	-



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P. M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com

An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-060422-02, Page 1 of 2

## TEST REPORT

Solid Waste Sample analysis

Report Code: SW: 060422-02

Issue Date: 11/04/2022

Issued To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

Sample Received On

Sample Drawn On

Sample Drawn By

Sampling Location Sample Description

Job Start Date

Job Completion date

: 06/04/2022

: 04/04/2022

: ITS Representative

: Slag Dumping Yard

: Solid Waste (CPP)

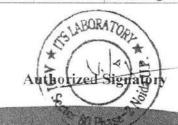
: 06/04/2022

: 11/04/2022

## TEST RESULT

S. No.	Test Parameters	Protocol By TCLP	Results	Requirement / Limit As Per EPA Chapter- 7		
				Min.	Max.	
1.	1.2Dichloroethane	EPA 5030C	BDL(DL:0.1µg/I)	-	0.5mg/l	
2.	2,4-D	EPA8151A	BDL(DL:0.1µg/l	-	10.0mg/l	
3.	2,4,6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/l	-	2.0mg/l	
4.	Benzene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l	
5.	Chloro Benzene	EPA5030C	6.3		100.0mg/l	
6.	CarbonTetraChloride	EPA5030C	BDL(DL:0.1ug/l	-	0.5mg/l	
7.	Chlorodane	EPA8081A	BDL(DL:0.1µg/l	-	0.03mg/l	
8.	Chloroform	EPA5030C	BDL(DL:0.1µg/l	-	6.0mg/l	
9.	1,1Dichloroethylene	EPA5030C	BDL(DL:0.1µg/l	-	0.07mg/l	
10.	1,4Dichlorobenzene	EPA 5030C	BDL(DL:0.1µg/l	-	7.5mg/l	
11.	2,4,5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent	-	1.0mg/1	
12.	2,4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent	-	0.13mg/l	
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l	I	200.0mg/l	
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l	
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	-	3.0mg/l	
16.	Hexachlorobenzene	EPA8081A	BDL(DL:0.1µg/l		0.13mg/l	
17.	m-Cresol	EPA8041A	BDL(DL:0.1µg/l		200.0mg/l	
18.	Methoxychlor	EPA8081A	BDL(DL:0.1µg/l		10.0mg/l	
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent	-	200.0mg/l	





Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-060422-02, Page 2 of 2

20	T-2		Triport Court of		
20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	-	200.0mg/l
21.	p-Cresol	EPA8041A	BDL(DL:0.1µg/l)	-	200.0mg/l
22.	Pyridine	By GC-MS(DCM-Etraction)	Absent	-	5.0mg/l
23.	Tetrachloroethylene	EPA5030C	BDL(DL:0.1µg/l)	-	0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	-	0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
26.	2,4,5Trichlorophenol	EPA8081A	BDL(DL:0.1µg/l)	-	400.0mg/l
27.	Barium (as Ba)	EPA200.8	6.5	-	100.0mg/l
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1µg/l)		1.0mg/l
29.	Total Chromium (as Cr)	EPA200.8	0.2	-	5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/l)		5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0.1µg/l)	-	0.2mg/l
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1µg/l)	_	0.2mg/l
34.	Selenium (as Se)	EPA200.8	BDL(DL:0.1µg/l)	-	1.0mg/l
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
36.	Copper (as Cu)	EPA200.8	0.11 mg/l	-	-
37.	Hexavalent Chromium (as Cr <sup>6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	<b>4</b> 3	-







Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634
Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-060822-16, Page 1 of 2

# **TEST REPORT**

Solid Waste Sample analysis

Report Code: SW: 060822-16

Issue Date: 11/08/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Received On

Sample Drawn On

Sample Drawn By

Sampling Location Sample Description

Job Start Date

Job Completion date

: 06/08/2022

: 04/08/2022

: ITS Representative

: Slag Dumping Yard

: Solid Waste (Induction Furnace Slag)

: 06/08/2022

: 11/08/2022

# TEST RESULT

S. No.	Test Parameters	Protocol By TCLP	Results	Requirement / Limit As Per EPA Chapter- 7	
	La constant de la con	31		Min.	Max.
1.	1.2Dichloroethane	EPA 5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
2.	2,4-D	EPA8151A	BDL(DL:0.1µg/l	2	10.0mg/l
3.	2,4,6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/l	127	2.0mg/l
4.	Benzene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l
5.	Chloro Benzene	EPA5030C	3.5	-	100.0mg/l
6.	Carbon Tetra Chloride	EPA5030C	BDL(DL:0.1ug/l	-	0.5mg/l
7.	Chlorodane	EPA8081A	BDL(DL:0.1µg/l	-	0.03mg/l
8.	Chloroform	EPA5030C	BDL(DL:0.1µg/1	( <del>-</del>	6.0mg/l
9.	1,1 Dichloroethylene	EPA5030C	BDL(DL:0.1µg/l	-	0.07mg/I
10.	1,4Dichlorobenzene	EPA 5030C	BDL(DL:0.1µg/l	-	7.5mg/l
11.	2,4,5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent	-	1.0mg/l
12.	2,4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent	-	0.13mg/l
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l	-	200.0mg/l
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	-	3.0mg/l
16.	Hexachlorobenzene	EPA8081A	BDL(DL:0.1µg/1	-	0.13mg/l
17.	m-Cresol	EPA8041A	BDL(DL:0.1µg/l	-	200.0mg/l
18.	Methoxychlor	EPA8081A	BDL(DL:0.1µg/l		10.0mg/l
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent	-	200.0mg/l



Authorized Signatory

Terms & Conditions .

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-060822-16, Page 2 of 2

20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	-	200.0mg/l
21.	p-Cresol	EPA8041A	BDL(DL:0.1µg/l)	-	200.0mg/l
22.	Pyridine	By GC-MS(DCM-Etraction)	Absent	-	5.0mg/l
23.	Tetrachloroethylene	EPA5030C	BDL(DL:0.1µg/l)		0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	-	0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg/l)	_	0.5mg/l
26.	2,4,5Trichlorophenol	EPA8081A	BDL(DL:0.1µg/l)	-	400.0mg/l
27.	Barium (as Ba)	EPA200.8	8.4	-	100.0mg/l
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1µg/l)	-	1.0mg/l
29.	Total Chromium (as Cr)	EPA200.8	0.13	-	5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)	<del>-</del> 1	5.0mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0.1µg/l)	-	0.2mg/l
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1µg/l)	-	0.2mg/l
34.	Selenium (as Se)	EPA200.8 '	BDL(DL:0.1µg/l)	-	1.0mg/l
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
36.	Copper (as Cu)	EPA200.8	0.10mg/l	43	
37.	Hexavalent Chromium (as Cr <sup>+6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	7	-
38.	Endrin	EPA8081A	BDL(DL:0.1µg/l)	-	0.02mg/l
39.	Heptachlor	EPA8081A	BDL(DL:0.1µg/l)	-	0.008mg/
40.	Lindane	EPA8081A	BDL(DL:0.1µg/l)	-	0.4mg/l
41.	Nitrobenzene	By GC-MS (Purge & Trap)	Absent	*	2.0mg/l



Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634
Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-060622-01, Page 1 of 2

# TEST REPORT

Solid Waste Sample analysis

Issued To : M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

 Sample Received On
 : 06/06/2022

 Sample Drawn On
 : 04/06/2022

Sample Drawn By : ITS Representative Sampling Location : Slag Dumping Yard

Sample Description : Solid Waste (Induction Furnace Slag)

 Job Start Date
 : 06/06/2022

 Job Completion date
 : 11/06/2022

## **TEST RESULT**

S. No.	Test Parameters	Protocol By TCLP	Results	Requirement / Limit A Per EPA Chapter- 7	
				Min.	Max.
1.	1.2Dichloroethane	EPA 5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
2.	2,4-D	EPA8151A	BDL(DL:0.1µg/l	-	10.0mg/l
3.	2,4,6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/1	-	2.0mg/l
4.	Benzene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l
5.	Chloro Benzene	EPA5030C	3.6	-	100.0mg/l
6.	Carbon Tetra Chloride	EPA5030C	BDL(DL:0.1µg/l	Animates - Superstantin	0.5mg/l
7.	Chlorodane	EPA8081A			0.03mg/1
8.	Chloroform	EPA5030C	BDL(DL:0.1 µg/1	_	6.0mg/l
9.	1,1Dichloroethylene	EPA5030C	BDL(DL:0.1µg/1	-	0.07mg/l
10.	1,4Dichlorobenzene	EPA 5030C	BDL(DL:0.1 μg/1		7.5mg/l
11.	2,4,5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent	-	1.0mg/l
12.	2,4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent	-	0.13mg/1
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l	-	200.0mg/l
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	_	3.0mg/l
16.	Hexachlorobenzene	EPA8081A	BDL(DL:0.1µg/1	-	0.13mg/1
17.	m-Cresol	EPA8041A	BDL(DL:0.1µg/l	-	200.0mg/l
18.	Methoxychlor	EPA8081A	BDL(DL:0.1µg/l		10.0mg/l
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent	-	200.0mg/l

Checked by

Authorized Signatory

Terms & Conditions :

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

## Report Code: SW-060622-01, Page 2 of 2

20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	•	200.0mg/l
21.	p-Cresol	EPA8041A	BDL(DL:0.1µg/l)	-	200.0mg/l
22.	Pyridine	By GC-MS(DCM-Etraction)	Absent	-	5.0mg/l
23.	Tetrachloroethylene	EPA5030C	BDL(DL:0.1µg/l)	-	0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	-	0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg/l)	-2	0.5mg/l
26.	2,4,5Trichlorophenol	EPA8081A	BDL(DL:0.1µg/l)		400.0mg/
27.	Barium (as Ba)	EPA200.8	8.5	-	100.0mg/
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1µg/l)	-	1.0mg/l
29.	Total Chromium (as Cr)	EPA200.8	0.14		5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0.1µg/l)	-	0.2mg/l
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1µg/l)	-	0.2mg/l
34.	Selenium (as Se)	EPA200.8	BDL(DL:0.1µg/l)	-	1.0mg/l
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
36.	Copper (as Cu)	EPA200.8	0.10mg/l	-	1
37.	Hexavalent Chromium (as Cr <sup>+6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	-	-
38.	Endrin	EPA8081A	BDL(DL:0.1µg/l)	-	0.02mg/l
39.	Heptachlor	EPA8081A	BDL(DL:0.1µg/l)	-	0.008mg/
40.	Lindane	EPA8081A	BDL(DL:0.1µg/l)	20	0.4mg/l
41.	Nitrobenzene	By GC-MS (Purge & Trap)	Absent	-	2.0mg/l

Checked by

Authorized Signatory



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P. M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com

An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-060422-01, Page 1 of 2

Issue Date: 11/04/2022

## TEST REPORT

Solid Waste Sample analysis

Report Code: SW: 060422-01

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

Sample Received On

Sample Drawn On

Sample Drawn By Sampling Location

Sample Description

Job Start Date Job Completion date 06/04/2022

: 04/04/2022

: ITS Representative

: Slag Dumping Yard

: Solid Waste (Induction Furnace Slag)

: 06/04/2022 : 11/04/2022

## TEST RESULT

S. No.	Test Parameters	Protocol By TCLP	Results	Requirement / Limit As Per EPA Chapter- 7		
				Min.	Max.	
1.	1.2Dichloroethane	EPA 5030C	BDL(DL:0.1µg/l)	-	0.5mg/l	
2.	2,4-D	EPA8151A	BDL(DL:0.1µg/l	(4)	10.0mg/l	
3.	2,4,6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/l	-	2.0mg/l	
4.	Benzene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l	
5.	Chloro Benzene	EPA5030C	4.1	-	100.0mg/l	
6.	Carbon Tetra Chloride	EPA5030C	BDL(DL:0.1µg/l		0.5mg/l	
7.	Chlorodane	EPA8081A	BDL(DL:0.1µg/l	-	0.03mg/l	
8.	Chloroform	EPA5030C	BDL(DL:0.1µg/l	-	6.0mg/l	
9.	1,1Dichloroethylene	EPA5030C	BDL(DL:0.1µg/l	-	0.07mg/l	
10.	1,4Dichlorobenzene	EPA 5030C	BDL(DL:0.1µg/l	-	7.5mg/l	
11.	2,4,5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent	1 -	1.0mg/l	
12.	2,4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent	-	0.13mg/l	
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l	-	200.0mg/l	
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l	
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	-	3.0mg/l	
16.	Hexachlorobenzene	EPA 8081A	BDL(DL:0.1µg/l	-	0.13mg/l	
17.	m-Cresol	EPA8041A	BDL(DL:0.1µg/l		200.0mg/l	
18.	Methoxychlor	EPA8081A	BDL(DL:0.1µg/l	1	10.0mg/l	
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent	-	200.0mg/l	



Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-060422-01, Page 2 of 2

20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	-	200.0mg/l
21.	p-Cresol	EPA8041A	BDL(DL:0.1µg/l)	_	200.0mg/l
22.	Pyridine	By GC-MS(DCM-Etraction)	Absent	-	5.0mg/l
23.	Tetrachloroethylene	EPA5030C	BDL(DL:0.1µg/l)	-	0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	-	0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
26.	2,4,5Trichlorophenol	EPA8081A	BDL(DL:0.1µg/l)	-	400.0mg/l
27.	Barium (as Ba)	EPA200.8	9.2	-	100.0mg/l
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1µg/l)	-	1.0mg/l
29.	Total Chromium (as Cr)	EPA200.8	0.10	-	5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0.1µg/l)	-	0.2mg/l
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1µg/l)	-	0.2mg/l
34.	Selenium (as Se)	EPA200.8	BDL(DL:0.1µg/l)	-	1.0mg/l
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1µg/l)	-	5.0mg/l
36.	Copper (as Cu)	EPA200.8	0.11mg/l	-	-
37.	Hexavalent Chromium (as Cr <sup>+6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	-	-
38.	Endrin	EPA8081A	BDL(DL:0.1µg/l)	-	0.02mg/l
39.	Heptachlor	EPA8081A	BDL(DL:0.1µg/l)	-	0.008mg/l
40.	Lindane	EPA8081A	BDL(DL:0.1µg/l)	-	0.4mg/l
41.	Nitrobenzene	By GC-MS (Purge & Trap)	Absent	-	2.0mg/l





Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P. M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

# TEST REPORT

Ambient Noise Analysis

Report Code: N-060822-05

Issue Date: 11/08/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

Sample Drawn By

Sample Received On

Sample description

Sampling Location

Sampling Duration

Analysis Duration

04/08/2022 To 05/08/2022

: ITS Representative

06/08/2022

: . Ambient Noise

: Near Main Gate

: 24 hours

: 06/08/2022 To 11/08/2022

		T	EST RESU	ULTS			
S. No	Test Parameters	Results	Units		Requirement (as per CPCB Guideline Limits indB(A) Leq		
1.	Equivalent Noise Level (6.0 Am To 10.0 Pm)	53.5	dB(A)	Category of Area/ Zone	Day Time	Night Time	
	10.0 Pm)			Industrial	75	70	
2	Equivalent Noise		•	Area			
2.	2. Level (10.0 Pm To 6.0 Am)		dB(A)	Commercial Area	65	55	
3.	Lmax	58.2	dB(A)	Residential Area	55	45	
4.	Lmin	31.8	dB(A)	Silence Zone	50	40	



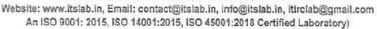
Terms & Conditions: KED BY

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634





TC-6179

# TEST REPORT

# **Ambient Noise Analysis**

Report Code: N-060622-01

Issue Date: 11/06/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

Sample Drawn By

Sample Received On

Sample description Sampling Location

Sampling Duration

Analysis Duration

04/06/2022 To 05/06/2022

: ITS Representative

: 06/04/2022

: Ambient Noise

: Near Main Gate

24 hours

06/06/2022 To 11/06/2022

	TEST RESULTS								
S. No	Test Parameters Results Uni			Requirement (as per CPCB Guideline Limits indB(A) Leq					
1.	Equivalent Noise Level (6.0 Am To	53.6	dB(A)	Category of Area/ Zone	Day Time	Night Time			
	10.0 Pm)			Industrial	75	70			
	<b>Equivalent Noise</b>		dB(A)	Area					
2.	2. <b>Level</b> (10.0 Pm To 34.2 6.0 Am)	34.2		Commercial Area	65	55			
3.	Lmax	58.1	dB(A)	Residential Area	55	45			
4.	Lmin	31.7	dB(A)	Silence Zone	50	40			

AUTHORIZE



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



TC-6179

# TEST REPORT

# Ambient Noise Analysis

Report Code: N-060422-01

Issue Date: 11/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

Sample Drawn By

Sample Received On

Sample description

Sampling Location Sampling Duration

Analysis Duration

04/04/2022 To 05/04/2022

: ITS Representative

: 06/04/2022

: Ambient Noise

Near Main Gate

: 06/04/2022 To 11/04/2022

		T	EST RESU	LTS		
S. No	Test Parameters	Results	Units	Requirement (as per CPCB Gu Limits in dB (A) Leq		
1.	Equivalent Noise Level (6.0 Am To	52.1	dB(A)	Category of Area/ Zone	Day Time	Night Time
	10.0 Pm)  Equivalent Noise			Industrial Area	75	70
2.	Level (10.0 Pm To 30.5 dB(A) 6.0 Am)	dB(A)	Commercial Area	65	55	
3.	Lmax	56.4	dB(A)	Residential Area	55	45
4.	Lmin	29.2	dB(A)	Silence Zone	50	40

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

## TEST REPORT

# Ambient Noise Analysis

Report Code: N-080822-05

Issue Date: 12/08/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

Sample Drawn By

Sample Received On

Sample description

Sampling Location

Sampling Duration

Analysis Duration

: 05/08/2022 To 06/08/2022

: ITS Representative

08/08/2022

: Ambient Noise

: Near DRI Gate

: 24 hours

: 08/08/2022 To 12/08/2022

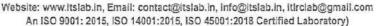
### TEST RESULTS Requirement (as per CPCB Guidelines Limits in S. No **Test Parameters** Results Units dB (A) Leq Category of Night Equivalent Noise Day Time Area/Zone Time Level (6.0 Am To 46.2 dB(A)1. 10.0 Pm) 70 75 Industrial Area Equivalent Noise 2. Level (10.0 Pm To 30.7 dB(A)65 55 Commercial 6.0 Am) Area Residential 55 45 57.6 3. Lmax dB(A)Area Silence Zone 50 40 Lmin 28.6 dB(A)

Terms & Conditions:

1 Test reports are valid any for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing value of Signature of Signature



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634





# TEST REPORT

**Ambient Noise Analysis** 

Issue Date: 12/06/2022 Report Code: N-080622-02

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

Sample Drawn By

Sample Received On

Sample description Sampling Location

Sampling Duration

Analysis Duration

05/06/2022 To 06/06/2022

ITS Representative

08/06/2022

Ambient Noise

: Near DRI Gate

: 24 hours

: 08/06/2022 To 12/06/2022

		T	EST RESU	LTS		
S. No	Test Parameters	2110 1110		Results	(as per CPCB ( Limits in dB (A) Leq	Guidelines
1.	Equivalent Noise Level (6.0 Am To	46.1	dB(A)	Category of Area/ Zone	Day Time	Night Time
	10.0 Pm)			Industrial	75	70
	Equivalent Noise			Area		
2.	Level (10.0 Pm To 6.0 Am)	30.8	dB(A)	Commercial Area	65	55
3.	Lmax	57.5	dB(A)	Residential Area	55	45
4.	Lmin	28.6	dB(A)	Silence Zone	50	40

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



TC-6179

# TEST REPORT

Ambient Noise Analysis

Report Code: N-080422-02

Issue Date: 12/04/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

Sample Drawn By

Sample Received On Sample description

Sampling Location

Sampling Duration Analysis Duration

05/04/2022 To 06/04/2022

ITS Representative

08/04/2022

: Ambient Noise

Near DRI Gate

: 24 hours

: 08/04/2022 To 12/04/2022

TEST RESULTS								
S. No	Test Parameters	Results	Units	Requirement	Guidelines			
1.	Equivalent Noise Level (6.0 Am To	43.4	dB(A)	Category of Area/ Zone	Day Time	Night Time		
	10.0 Pm) Equivalent Noise			Industrial Area	75	70		
2.	Level (10.0 Pm To 6.0 Am)	28.3	dB(A)	Commercial Area	65	55		
3.	Lmax	54.9	dB(A)	Residential Area	55	45		
4.	Lmin	32.2	dB(A)	Silence Zone	50	40		

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.

4. Total liability of our laboratory is limited to invoiced amount.