

TSL/UPPCB/Form-V/2023/09-1 28th September 2023,

The Chief Environment Engineer (Circle-1) U.P. Pollution Control Board, TC- 12V, Vibhuti Khand, Gomati Nagar, Lucknow (U.P)

Sub.: Submission of Environmental Statement (Form-V) for FY-2022-23.

Dear Sir,

Please find enclosed herewith the "Environment Statement Report" for the financial year 2022-23.

We Hope you will find same in order.

Thanking you,

Yours faithfully,

Tata Steel Limited, Plot No -23, Site -4, Ind. Area, Sahibabad.

W Com

Signature

Encl: As above

0-618

Executive Plant Head

CC- The Reginal Officer, U.P. Pollution Control Board, Ghaziabad.

PEGIONAL OFFICE

REGIONAL OFFICE

OFFI

TATA STEEL LIMITED



TSL/UPPCB/Form-V/2023/09-1 28th September 2023.

The Chief Environment Engineer (Circle-1)
U.P. Pollution Control Board,
TC- 12V, Vibhuti Khand,
Gomati Nagar, Lucknow (U.P)

Sub.: Submission of Environmental Statement (Form-V) for FY-2022-23.

Dear Sir,

Please find enclosed herewith the "Environment Statement Report" for the financial year 2022-23.

We Hope you will find same in order.

Thanking you,

Yours faithfully,

Tata Steel Limited, Plot No -23, Site -4, Ind. Area, Sahibabad.

week Comm

Signature

ofin

Executive Plant Head

CC- The Reginal Officer, U.P. Pollution Control Board, Ghaziabad. Encl: As above

TATA STEEL LIMITED-SAHIBABAD



FORM - V (SEE RULE 14) ENVIRONMENTAL STATEMENT

FOR THE FINANCIAL YEAR ENDING 31ST MARCH, 2023.

PRESENTED BY:

M/s. TATA STEEL LIMITED.
PLOT NO.-23 & OTHERS, SITE- IV, INDL. AREA SAHIBABAD, DIST: - GHAZIABAD. (UP).

	PART- A				
i.	Name and address of the Owner/Occupier of the industry, operation, or process	Mr. T.V. NARENDRAN, (MD&CEO) TATA STEEL LTD. Plot No. 23 & others, site- iv, Sahibabad industrial area, Sahibabad, Ghaziabad, (U.P).			
ii.	Industry category	Red			
	Primary (STC Code),	Secondary Metallurgical Industry			
	Secondary (STC Code)	Standalone Re-rolling mill			
iii.	Production capacity	Cold Rolled Steel Strips / Sheets 1250 Mt/Day and Coated Plain & Corrugated Sheets: 1250 Mt/Day (0.91 MMTA) Production During 2022-23. Cold Rolled Steel Strips / Sheets - 956.74 Mt/Day and Coated Plain & Corrugated Sheets - 717.95 Mt/Day.			
iv.	Year of Establishment	1989			
V.	Date of the last environmental Statement Submitted	Our Letter no- TSL/UPPCB/form-V/2022/09 dated: 29 th September 2022.			

]	PART - B			
B-1: Water and Raw	Materials Consumption				
		During the previous Financial Year (2021-22)	During the Financial Year (2022-23)		
1. Water consumptio	n (annual avg.)	1435	1454		
a) Process Water (m3	B/day)	366	347		
b) Cooling Water (m3	/day)	896	938		
c) Domestic (m3/day)	58	59		
d) Others (m3/day)		115	110		
B-2: Process Water (onsumption per unit of	<u> </u>			
	Process Wate	ater Consumption per unit of product (Lit/Kwh)			
Name of Product	Previous Ye	ear (2021-22)	Current Year (2022-23)		
Final Cold rolled steel strips/sheets & Final coated plain & corrugated sheets	0.83	KL/Mt	0.87 KL/Mt		
B-3: Raw Material Co	nsumption				
Name of Raw Name of Product material		Raw material consum (MT/MWH)	ption per unit of product		

		During Previous Financial Year (2021-22)	During Current financial Year (2022-23)
HR COILS		6,69,740 Mt	6,52,752 Mt
Zinc & Alloy		7342.02 Mt	5890 Mt
Aluminium Silicon		1906.67 Mt	1705 Mt
Paint	Cold Rolled Steel	2001.62 Mt	1128 Mt
Acid	Strips / Sheets and Coated Plain &	3294 Mt	2472.604 Mt
Gas (RLNG)	Corrugated Sheets	921516.45 MBTU	839866.22 MBTU
Lime		435.14 Mt	500.22 Mt
Fuel (HSD)		3.171 KL	18.41 KL
LSHS		191.42 KL	0

			PART – C to Environment/ unit of output ecified in the Consent issued)	
C-1: Water Pollu Pollutant Parameters	tion Prescribe d Standard (mg/l)	Quantity of pollutants Discharge d (kg/d)	Concentration of pollutants discharge (mg/l)	Percentage variation from prescribed standards with reasons
1. BOD 2. COD 3. TSS 4. pH 5. O&G 6. Iron (as Fe)	30 250 100 5.5 –9.0 10 3	0.19 KL/Ton	12.00 70.00 53.10 7.35 2.20 0.30	No deviation from Prescribed standard.
Water (STP disch	narge)			

C-2: Air Pollution

C-2. All I ollution				
Pollutant Parameters	Prescribe d Standard (mg/Nm³)	Quantity of pollutant s Discharg ed (kg/d)	Concentration of pollutants Discharged (kg/d)	Percentage variation from prescribed standards with reasons.

A) AIR POLLUTION: STACK EMISSIONS	Prescribed Standard (mg/Nm³)	PM (mg/nm3)	SO2 (mg/nm3)	NOx (mg/Nm 3)	Acid Mist (mg/n m3)	PM % BELOW THE LIMIT
DG set stack	100	**	**	**	NA	DG S/D
Pickling Stack - Old	100	16.00	5.20	12.10	<0.02	84.0 %
Boiler I Stack (UP 5447)	100	23.20	ND	ND	<0.02	76.80%
Boiler II Stack (UP 5446)	100	23.80	ND	ND	<0.02	76.30 %
Pickling Stack - New	100	9.40	ND	ND	<0.02	90.60 %
Acid Recovery Plant I Stack	100	21.60	ND	ND	<0.02	78.40 %
ECL – Alkali fumes exhaust	100	13.50	ND	ND	<0.02	86.50 %
GP Zinc Pot Furnace	100	27.50	ND	ND	<0.02	72.50 %
Acid Recovery Plant II Stack	100	27.80	ND	ND	<0.02	72.20 %

PART- D

Hazardous Wastes

(As specified under Hazardous and Other Wastes (Management & Transboundary Movement) Rules, $2016\,$

D-1: From process

	Total Quantity (Lite	Total Quantity (Liters)/MT			
Hazardous wastes	During the previous financial Year 2021-22	During the current financial year 2022-23			
Used / Spent Oil	18.71 MT/A	5.20 MT/A			
Zinc Dross	1079.94 MT/A	1023.12 MT/A			
Zinc Ash.	Nil	Nil			
Roll grinding sludge	137.25 MT/A	191.36 MT/A			
Oily sludge	624.39 MT/A	570.02 MT/A			
Cotton waste	9.76 MT/A	6.50 MT/A			
Spent acid/Alkali	1294.13 KL	1933.0 KL			
Lead Ash	Nil	Nil			
D-2: From pollution control facilities					
ETP Sludge.	1089.92 MT/A	1241.68 MT/A			

PART-E					
	Solid Wastes				
(As specified u	nder Solid Waste Management,	Rules, 2016)			
E-1: Generation from process					
	Total Qı	uantity (tons)			
Name	During the previous financial Year 2021-22	During the current financial Year 2022-23			
Trimming, Scrap & Arising	63002.98	66019.10			
		1			
E-2: Generation from Pollution Control Facility					
Total Quantity (tons)					

	During the previous	During the current financial		
Name	financial Year 2021-22	Year 2022-23		
Iron Oxide	2770.55	2640.49		
E-3: Generation from Segregation R	ejects/Inert Materials	<u></u>		
Name	Total Quantity (tons)			
	During the previous financial Year 2021-22	During the current financial Year 2022-23		
	NA	NA		
E-3.1: Quantity recycled or re-utilize	 ed within unit & other.			
	Total Quantity (tons)			
Name	During the current financial Year 2021-22	During the current financial Year 2022-23		
(a)	NA	NA		
(b)	NA	NA		
E-3.2: Sold				
	Total Qı	iantity (tons)		
Name	During the current financial Year 2021-22	During the current financial Year 2022-23		
	NILL	NILL		
E-3.3: Disposed				
	Total Quantity (tons)			
Name	During the current financial Year 2021-22	During the current financial Year 2022-23		
Industrial Garbage	636.84 MT	568.76 MT		

PART-F

Please specify the characteristics in terms of composition and quantum of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

F-1: Hazardous Wastes

Description	Chemical composition	Disposal Method
1. ETP Sludge	Na(mg/kg)-92,S04(%)- 188,N(mg/kg)-29,OM(%)- 148,Fe(mg/kg)-9.7,K(mg/kg)-12	Through TSDF
2. STP Sludge	Na(mg/kg)-88,S04(%)- 186,N(mg/kg)-27,OM(%)- 146,Fe(mg/kg)-9.76,K(mg/kg)-11	Through TSDF
3. Grinding Sludge	Na(mg/kg)-86,S04(%)- 182,N(mg/kg)-25,OM(%)- 144,Fe(mg/kg)-9.74,K(mg/kg)-13	Through TSDF
4. Mill Sludge	Na(mg/kg)-72,S04(%)- 165,N(mg/kg)-19,OM(%)- 132,Fe(mg/kg)-9.61,K(mg/kg)-13	Through TSDF
F-2: Solid Wastes		
1.	NA	NA
2.	NA NA	NA

We have proper arrangements for storage of hazardous waste. Covered shed with concrete floor, all round drain and catch pit has been provided for safe storage before disposal to authorized recyclers.

PART-G

IMPACT OF THE POLLUTION CONTROL MEASURE ON CONSERVATION OF NATURAL RESOURCES AND CONSEQUENTLY ON THE COST OF PRODUCTION.

IMPACT OF POLLUTION CONTROL MEASURES ON COST OF PRODUCTION

Our Galvanizing line is modern Galvanizing line with minimum possible air pollution. The fuel used is LPG which creates less pollution due to efficient fuel composition system and improved stack height and design of the chimney. This Galvanizing line is having Non-Ox type furnace and preheating cum cleaning facilities to maintain strip temperature suitable for Galvanizing process. As such there is no need of Pickling process prior to Galvanizing where acidic effluent is generated. On all other conventional type of Galvanizing line pickling process is must. By adopting this state of art, advance technology Galvanizing line with non- ox type furnace, there is no need of adding extra equipment's for degreasing and acidic pickling for measuring any surface impurities or rusty patches etc.

Thus, it can be noted that our Galvanizing line with non-ox type furnace is least polluted plant. This has increased the cost of production but has helped in the improvement of the environmental degradation.

EFFLUENT TREATMENT PLANT

TREATMENT FACILITIES

The main source of Effluent is pickling line from where acid rinse wastewater and spent acid are generated. To take care of above effluents, proper ETP plant is already in operation for treatment of effluents as per the Pollution Control Board Norms.

In order to reduce the rinse water discharge from the pickling line, the <u>company have installed cascade system</u> which is multistage assemblage allowing for counter current flow of wash waters. The strips leaving the assembly comes into contact with the fresh incoming water and the water inside flows in the counter current fashion against the strips coming after being dipped in acid bath. By virtue of providing cascading system, there is major reduction in rinse water discharge. The present ETP has been designed by national productivity council, to take care the spent acid and rinse water discharge generated during the process of Pickling of HR Coils.

The Effluent Treatment Plant comprises of storage tanks, Reaction tanks, clarifiers, lamella settlers and filter presses.

Apart from Effluent Treatment Plant, we have STP Plant

SEWAGE TREATMENT PLANT (STP): we have a full fledge "SEWAGE TREATMENT PLANT (STP)" of 60 KLD to take care of domestic <u>effluent</u> suitable for disposal. The Process Flow & Treatment Scheme (Capacity: 60 KLD) and Detailed Lay out Plan of 60 KLD STP diagram of the STP Plant are as below: -

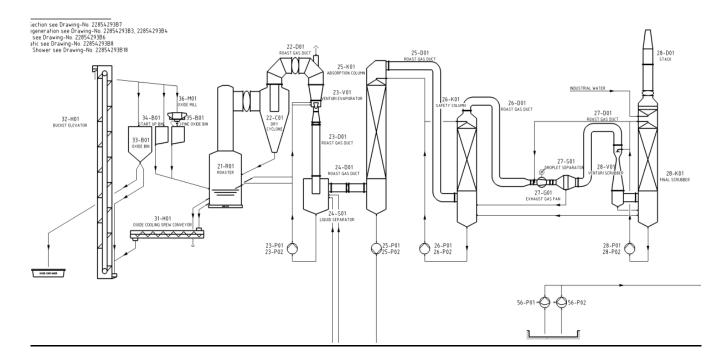




ACID REGENRATION PLANT (ARP) : To achieve the goal of continuous improvement with reduced discharge, we have already installed and commissioned ARP of SMS SIEMAG (SMS GROUP) of Austria (Germany) making plant "ARP i.e. ACID REGENRATION PLANT" with a capacity of 2 x 2500 lPh with total cost more than Rs. 50 crores.

The SMS SIEMAG ARP (Acid Regeneration Plant) regenerates hydrochloric acid from Waste Pickle Liquor from hydrochloric acid pickling line on the principle of pyro hydrolysis by applying fluidized bed technology. The same is operative since June/July 2013.

ARP SYSTEM PROCESS OVERVIEW



AIR POLLUTION CONTROL

IMPACT ON AIR ENVIRONMENT:

For energy requirement, we are using LNG/LSHS as Fuel and have kept sufficient height of each stack for material disperse of the gases. Besides this, Fuel LNG as a green energy to no emission either through water or air and is within the limits as prescribed by the board.

CAPTIVE POWER PLANT

We have installed a captive power plant consisting of 2 DG sets each of capacity 12 MW. Common stack attached to DG Sets has been maintained at the height of 100 meters against the requisite height of 73 meters.

- 1. To recover heat of the Exhaust Gas from Engine, 2nos of waste heat recovery boilers installed with a steam gen. capacity of 4.8 Ton / Hr. each boiler. Expenditure of Exhaust Gas Boiler No. 1.
- 2. We have stopped the use of Furnace Oil with the directions of Supreme Court and replaced it with LSHS and using Non-Polluting medium LNG Clean Fuel) for our process to reduce impact of air pollutant in environment.
- **3.** Installation of Waste heat Boilers and Heat recovery system to produce steam at DG Set which enables us to use only one Boiler at a time. Thus, impacting on less power consumption and directly reducing Air Pollution. Both the Boilers have started operating with Natural Gas. However, one boiler is operated at a time with Heat recovery boilers in operation.

- **4.** Power generation of DG Sets reduced by consuming more of grid power resulting in reducing lesser Air Pollution. Besides our generation we have power load of 27.084 MVA from UP Power Corporation Ltd. (PVVNL),
- **5.** Installation of Automatic Air dilution system at Galvanizing lines Exhaust, which reduces the exhaust fumes temperature disposed to air impacting directly towards Climate control.
- **6.** Continuously Air monitoring is done by the CPCB/UPPCB approved laboratories on regular basis to monitor the environmental situation.
- 7. Green Environment with planting more plants along the side of factory boundary walls and by maintaining Gardens at various locations. We also have a well-maintained Nursery to produce good Quality of Plants resulting in Good & Healthy Environment and control on Air Pollution.
- **8.** Apart from this we are also monitoring work environment on Quarterly basis from the third party ETS. We have also developed our own monitoring stations for regular Monitoring.
- **9.** Online continuous Effluent monitoring and online continuous stack monitoring system have been installed and connected with the server of CPCB and UPPCB.

PART-H&I

ADDITIONAL INVESTMENT PROPOSAL FOR ENVIRONMENTAL PROTECTION AND ABATEMENT OF POLLUTION.

The management has invested more than crores to put up upgraded technology to take care the effluent generated during the process. Management, thus provide more and more facilities with a view to give encouraging results of treated effluents. We have also installed acid re-generation plant, which is controlling the environment to great extent. We have also installed STP plant.

TSL Sahibabad has participated in Van Mahotsav and planting 4000 saplings In the outside of factory premises.

Tata Steel ltd., Sahibabad extracts groundwater for Industrial processes and drinking purpose. As a responsible industrialist, we implemented and invested approximately 9 crores in rainwater harvesting projects for ground water recharge inside plant premises and Adopted ponds in nearby villages such as Painga, Patla, Sadarpur, Misbapur, kakra, Dasna in district Ghaziabad. The total ground water recharge through implementing rainwater harvesting projects is 4.38 lakhs cubic meter, out of which 0.96 lakh cubic meter ground water recharge is through roof top inside plant premises and 3.41 lakh cubic meter is through adopted ponds in nearby villages.

Small initiatives have been taken for freshwater consumption. Waterless urinals have been installed in company premises saving approximately 5400 KL/ annum water. Water mist taps have been installed saving approximately 50% of Total RO water consumption. STP treated water has been reused in toilet flushing. Reuse of process water in cooling tower.

The company has been to install ZLD by FY 24, the implementation of the same is in process. The company is also exploring further means to reduce their ground water extraction by reusing water from treated STP water from STP Indirapuram. The discussions are still in process.

IMPROVING THE QUALITY OF ENVIRONMENT

We have already developed a green belt area. Further, we have planted trees around E.T.P and other areas. Good housekeeping and proper Control Measures are adopted regularly in keeping industry neat and clean. We have established STP tank and ARP system to keep proper control of Pollution. Industry has plans for plantation of trees in surrounding areas with the help of Administration. Inside factory premises total 12000 plants have been planted.







We have kept open any investment proposal for pollution abatement in future.

ANY OTHER PARTICULARS IN RESPECT OF ENVIRONMENT PROTECTION AND ABATEMENT OF POLLUTION.



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

URLNO.TC877123000002109F DATE OF REPORT: 28.07.2023 TEST REPORT NO .: ETS/2109/07/2023

WASTE WATER SAMPLE ANALYSIS REPORT

: TATA STEEL LIMITED Name And Address of Customer

23/4.SITE-IV.SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

24.07.2023 **Date of Sampling** 24.07.2023 **Analysis Start Date Analysis End Date** 28.07.2023 : 2109

Sample ID No

ETS STAFF Sampling Done By

E.T.P Sample Description

: E.T.P. INLET Sampling Location

ETS/STP/WATER-02 Sampling Method

2.0 Ltr. Sample Quantity **Packing Condition** SEALED

P.V.C. CANE Packed In

S. No.	Test Parameter	Unit	Result	Test Method
1	рН		1.70	APHA 4500-H+
2	Total Suspended Solids,(TSS)	mg/L	261.0	APHA 2540-D
3	Total Dissolved Solids,(TDS)	mg/L	13140.0	APHA 2540-C
4	Oil & Grease, (O & G)	mg/L	8.5	APHA 5520-D
5	Biological Oxygen Demand(BOD _{3d} 27 ⁰ C)	mg/L	14.0	IS: 3025 (Part-44)
6	Chemical Oxygen Demand,(COD)	mg/L	355.0	APHA 5220-B
7	Iron,(Fe)	mg/L	5.61	APHA-3120B

*****End of Test Report*

CHECKED BY SHRADDHA GUPTA

Page 1 of 1

For Enviro-Tech Services

Format No ETS/LAB/TR-10, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laborators

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO.: ETS/2110/07/2023 URLNO.TC877123000002110F DATE OF REPORT: 28.07.2023

WASTE WATER SAMPLE ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

 Date of Sampling
 : 24.07.2023

 Analysis Start Date
 : 24.07.2023

 Analysis End Date
 : 28.07.2023

Sample ID No : 2110

Sampling Done By : ETS STAFF

Sample Description : E.T.P

Sampling Location : E.T.P. OUTLET

Sampling Method : ETS/STP/WATER-02

Sample Quantity : 2.0 Ltr.
Packing Condition : SEALED

Packed In : P.V.C. CANE

S. No.	Test Parameter	Unit	Result	Specificat (As per	Test Method	
		E trans		Inland Surface Water	Public Sewers	
1	рН		7.35	5.5 - 9.0	5.5 - 9.0	APHA 4500-H+
2	Total Suspended Solids,(TSS)	mg/L	53.1	100	600	APHA 2540-D
3	Total Dissolved Solids,(TDS)	mg/L	1956.0	2100	Not Specified	APHA 2540-C
4	Oil & Grease, (O & G)	mg/L	2.2	10	20	APHA 5520-D
5	Biological Oxygen Demand(BOD _{3c} 27 ⁰ C)	mg/L	12.0	30	350	IS: 3025 (Part-44)
6	Chemical Oxygen Demand,(COD)	mg/L	70.0	250	Not Specified	APHA 5220-B
7	Iron,(Fe)	mg/L	0.30	3	3	APHA-3120B

****End of Test Report****



Page 1 of 1

Pushkar Midal

For Enviro-Tech Services

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-10, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO.: ETS/2110-3/07/2023

URLNO.TC877123000021103F

DATE OF REPORT: 28.07.2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

Date of Monitoring

24.07.2023

Analysis Start Date

25.07.2023

Analysis End Date

28.07.2023

Duration Of Monitoring

24.07.2023 To 25.07.2023

Time Of Monitoring

10.20 AM

Ambient Temperature:

(CO&O₃ for 1.0 Hrs.)

Sample ID No

10.20 AM

2110-3

ETS STAFF

Sampling Location Sampling Method

Sampling Done By

NEAR MAIN GATE OF FACTORY ETS/STP/AIR-01

Sampling Machine Placed At Height

1.5 METER FROM GROUND LEVEL

To

38.0

Weather Condition

CLEAR E To W

Wind Direction **Equipment Used**

Respirable Dust Sampler (PM10) +

Fine Particulate Sampler (PM25)

For Enviro-Tech_Services

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1	Particulate Matters,(PM ₁₀)	µg/m³	94.1	For 24 Hrs.=100	IS 5182 (Part-23)
2	Particulate Matters,(PM _{2.5})	μg/m³	37.4	For 24 Hrs.=60	IS 5182 (Part-24)
3	Sulphur Dioxide, (SO ₂)	µg/m³	13.6	For 24 Hrs.=80	IS: 5182 (Part-2)
4	Nitrogen Dioxide,(NO ₂)	µg/m³	31.5	For 24 Hrs.=80	IS: 5182 (Part-6)
5	Ammonia,(NH ₃)	µg/m³	<5.0	For 24 Hrs.=400	IS 5182 (Part-25)
6	Ozone,(O ₃)	µg/m³	21.0	For 1 Hrs.=180	IS: 5182 (Part9)
7	Lead,(Pb)	μg/m³	<0.05	For 24 Hrs.=1	IS 5182 (Part-22)

Page 1 of 2

CHECKED BY SHRADDHA GUPTA

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.

2. The results indicated only refer to the tested samples and listed applicable parameters.

3. No complaint will be entertained if received after 7 days of issue of test report. 4. Our liability is limited to invoice value only.

5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO.: ETS/2110-3/07/2023

DATE OF REPORT: 28.07.2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
8	Arsenic,(As)	ng/m³	<1.0	For Annual=06	IS 5182 (Part-22)
9	Nickel,(Ni)	ng/m³	<1.0	For Annual=20	CPCB,Vol1, Pg48
10	Carbon Monoxide,(CO)	mg/m³	0.57	For 1 Hrs.=4	IS 5182 : Part 10
11	Benzo (a) Pyrine (BaP)	ng/m³	<0.05	For Annual=01	IS: 5182 (Part-12)
12	Benzene,(C ₆ H ₆)	μg/m³	<1.0	For 24 Hrs.=5	IS 5182 (Part-11)

End of Test Report*

SHRADDHA GUPTA

Page 2 of 2

AUTHORIZED SIGNATORY Lab In-charge

Services

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

URLNO.TC877123000021104F DATE OF REPORT: 28.07.2023 TEST REPORT NO .: ETS/2110-4/07/2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer

TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

Date of Monitoring

24.07.2023

Analysis Start Date

25.07.2023

Analysis End Date Duration Of Monitoring 28.07.2023 24.07.2023

25.07.2023

Time Of Monitoring

10.40 AM

10.40 AM

(CO&O3 for 1.0 Hrs.)

Sample ID No

Sampling Done By

2110-4

ETS STAFF

Sampling Location Sampling Method

NEAR MEDICAL ROOM (GREEN BELT AREA) ETS/STP/AIR-01

Sampling Machine Placed At Height

1.5 METER FROM GROUND LEVEL

Weather Condition

CLEAR

Ambient Temperature:

°C 38.0

Wind Direction

E To W

Equipment Used

Respirable Dust Sampler (PM10) +

To

To

Fine Particulate Sampler (PM2.5)

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1	Particulate Matters,(PM ₁₀)	μg/m³	87.5	For 24 Hrs.=100	IS 5182 (Part-23)
2	Particulate Matters,(PM _{2.5})	µg/m³	32.3	For 24 Hrs.=60	IS 5182 (Part-24)
3	Sulphur Dioxide, (SO ₂)	µg/m³	11.6	For 24 Hrs.=80	IS: 5182 (Part-2)
4	Nitrogen Dioxide,(NO ₂)	µg/m³	24.2	For 24 Hrs.=80	IS: 5182 (Part-6)
5	Ammonia,(NH ₃)	µg/m³	<5.0	For 24 Hrs.=400	IS 5182 (Part-25)
6	Ozone,(O ₃)	µg/m³	15.0	For 1 Hrs.=180	IS: 5182 (Part9)
7	Lead,(Pb)	µg/m³	<0.05	For 24 Hrs.=1	IS 5182 (Part-22)

Page 1 of 2

CHECKED BY SHRADDHA GUPTA

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.

2. The results indicated only refer to the tested samples and listed applicable parameters.

3. No complaint will be entertained if received after 7 days of issue of test report.

4. Our liability is limited to invoice value only.

5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO.: ETS/2110-4/07/2023

DATE OF REPORT: 28.07.2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
8	Arsenic,(As)	ng/m³	<1.0	For Annual=06	IS 5182 (Part-22)
9	Nickel,(Ni)	ng/m³	<1.0	For Annual=20	CPCB,Vol1, Pg48
10	Carbon Monoxide,(CO)	mg/m ³	0.53	For 1 Hrs.=4	IS 5182 : Part 10
11	Benzo (a) Pyrine (BaP)	ng/m³	<0.05	For Annual=01	IS: 5182 (Part-12)
12	Benzene,(C ₆ H ₆)	μg/m³	<1.0	For 24 Hrs.=5	IS 5182 (Part-11)

*****End of Test Report****

CHECKED BY SHRADDHA GUPTA

Page 2 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 at In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO.: ETS/2110-5/07/2023 URLNO.TC877123000021105F DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TATA STEEL LIMITED

23/4,SITE-IV,SAHIBABAD INDUSTRIAL AREA,SAHIBABAD

GHAZIABAD U.P.

 Date Of Sampling
 : 24.07.2023

 Analysis Start Date
 : 25.07.2023

 Analysis End Date
 : 28.07.2023

 Duration Of Sampling
 : 30.0 MIN

 Sample ID No.
 : 2110-5

Sampling Done By : ETS STAFF

Sampling Method : ETS/STP/STACK-01

Stack Attached To : H & T FURNACE NO.02 & 03

Capacity Of Stack : --

Quantity Of Fuel Used : --
Type Of Fuel Used : L.N.G

Type Of Fuel Used : L.N.G

Stack Height Above Ground : 16.0 MTR.

Stack Dia At The Top : 400.0 MM

Material Of Construction : M.S

Attached APCS : ...

Normal Operating Schedule : 24.0 HOURS PER DAY

Ambient Temperature : 38.0°C Flue Gas Temperature : 80.0°C

Velocity Of Flue Gases : 8.9 MTR./SEC.

Quantity Of Emission Discharged : 4024.22 m³/hr

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	17.8	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	8.9	IS: 13270: 2008
7	Lead,(Pb)	mg/Nm ³	< 0.05	USEPA 6010D
8	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

Page 1 of 2

SHRADDHA GUPTA

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 Lab In-charge

AUTHORIZED SIGNATOR

For Enviro-Tech Services



- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.







(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2110-5/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
9	Acid Mist (HCL)	mg/Nm³	<0.02	Volumetric Method

REMARK-H & T FURNACE-02 & 03 ARE ATTACHED TO A SINGLE STACK. DURING MONITORINGFURNACE NO-02 WAS RUNNING *****End of Test Report*****

CHECKED BY SHRADDHA GUPTA Page 2 of 2

For Enviro-1

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 ab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .:

ETS/2110-6/07/2023

URLNO.TC877123000021106F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4.SITE-IV.SAHIBABAD INDUSTRIAL AREA.SAHIBABAD

GHAZIABAD U.P.

24.07.2023 **Date Of Sampling** 25.07.2023 **Analysis Start Date** 28.07.2023 **Analysis End Date** 30.0 MIN **Duration Of Sampling**

2110-6 Sample ID No.

ETS STAFF Sampling Done By

ETS/STP/STACK-01 Sampling Method

DG SET NO-01 Stack Attached To

12.0 MW Capacity Of Stack 1750 LPH Quantity Of Fuel Used L.S.H.S Type Of Fuel Used 105.0 MTR. Stack Height Above Ground 5400.0 MM Stack Dia At The Top

R.C.C Material Of Construction

Attached APCS

D.G. Set Comm. Date ON OR AFTER 01/07/2005 (> 800 KW)

Normal Operating Schedule AS PER REQUIRMENTS

38.0°C **Ambient Temperature** 310.0°C Flue Gas Temperature

12.1 MTR./SEC. Velocity Of Flue Gases

997114.53 m³/hr Quantity Of Emission Discharged

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1	Particulate Matters (PM at 15% O ₂)	mg/Nm ³	65.3	100	IS-11255 (Part-1)
2	Oxides of Nitrogen(NOx asNO2 at 15% O2)	Ppmv	211.0	710	IS-11255 (Part-7)
3	Carbon Monoxide (CO at 15% O ₂)	mg/Nm ³	14.1	150	IS: 13270
4	Sulphur Dioxide,(SO ₂)	mg/Nm ³	73.0	Not Specified	IS-11255 (Part-2)
5	Oxygen (O ₂)	% by vol	12.6	Not Specified	IS: 13270

*****End of Test Report****

SHRADDHA GI

Page 1 of 2

Format No ETS/LAB/TR-05, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.







(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2110-6/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
6	Non Methane Hydro Carbon(NMHC at 15% O ₂)	mg/Nm ³	34.0	100	ETS/STP/STACK-07

Remark:-AT THE TIME OF MONITORING TWO D.G SET ARE ATTACHED TO SINGLE STACK.DURING MONITORING DG.SET NO-01 WAS RUNNING.

*****End of Test Report*****

CHECKED BY SHRADDHA GUPTA

Page 2 of 2

Format No ETS/LAB/TR-05, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

Lab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

URLNO.TC877123000021107F TEST REPORT NO .: ETS/2110-7/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4.SITE-IV.SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

24.07.2023 **Date Of Sampling** 25.07.2023 **Analysis Start Date** 28.07.2023 Analysis End Date 30.0 MIN **Duration Of Sampling**

2110-7 Sample ID No.

ETS STAFF Sampling Done By Sampling Method ETS/STP/STACK-01

Stack Attached To DG SET NO-02

12.0 MW Capacity Of Stack 1750 LPH Quantity Of Fuel Used L.S.H.S Type Of Fuel Used 105.0 MTR. Stack Height Above Ground

5400.0 MM Stack Dia At The Top R.C.C Material Of Construction Attached APCS

D.G. Set Comm. Date ON OR AFTER 01/07/2005 (> 800 KW)

Normal Operating Schedule AS PER REQUIRMENTS

38.0°C **Ambient Temperature** 298.0 °C Flue Gas Temperature

10.9 MTR./SEC Velocity Of Flue Gases

89827.14 m³/hr Quantity Of Emission Discharged

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1	Particulate Matters (PM at 15% O ₂)	mg/Nm ³	67.3	100	IS-11255 (Part-1)
2	Oxides of Nitrogen(NOx asNO2 at 15% O2)	ppmv	201.0	710	IS-11255 (Part-7)
3	Carbon Monoxide (CO at 15% O ₂)	mg/Nm ³	14.5	150	IS: 13270
4	Sulphur Dioxide,(SO ₂)	mg/Nm ³	71.8	Not Specified	IS-11255 (Part-2)
5	Oxygen (O ₂)	% by vol	12.4	Not Specified	IS: 13270

***End of Test Report*

Page 1 of 2

Format No ETS/LAB/TR-05, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

Note:-

- Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.

CHECKED

SHRADDHA GUPTA

- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.









(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2110-7/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
6	Non Methane Hydro Carbon(NMHC at 15% O ₂)	mg/Nm ³	41.0	100	ETS/STP/STACK-07

Remark:-AT THE TIME OF MONITORING TWO D.G SET ARE ATTACHED TO SINGLE STACK.DURING MONITORING DG.SET NO-02 WAS RUNNING.

*****End of Test Report*****

CHECKER SHRADDHA GU

Page 2 of 2

Format No ETS/LAB/TR-05, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

URLNO.TC877123000021101F ETS/2110-1/07/2023 DATE OF REPORT: 28.07.2023

WASTE WATER SAMPLE ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4,SITE-IV,SAHIBABAD INDUSTRIAL AREA,SAHIBABAD

GHAZIABAD U.P.

Date of Sampling Analysis Start Date 24.07.2023 24.07.2023

Analysis End Date Sample ID No

28.07.2023 2110-1

Sampling Done By

: ETS STAFF

Sample Description Sampling Location

S.T.P

Sampling Method

S.T.P. INLET ETS/STP/WATER-02

Sample Quantity

2.0 Ltr.

Packing Condition

SEALED

Packed In

P.V.C. CANE

S. No.	Test Parameter	Unit	Result	Test Method
1	рН		7.47	APHA 4500-H+
2	Total Suspended Solids,(TSS)	mg/L	913.0	APHA 2540-D
3	Total Dissolved Solids,(TDS)	mg/L	1762.0	APHA 2540-C
4	Oil & Grease, (O & G)	mg/L	7.2	APHA 5520-D
5	Biological Oxygen Demand(BOD _{3d} 27 ⁰ C)	mg/L	34.0	IS: 3025 (Part-44)
6	Chemical Oxygen Demand,(COD)	mg/L	235.0	APHA 5220-B
7	Sulphate,(SO ₄)	mg/L	113.0	APHA 4500:(SO ₄)-E
8	Chloride,(CI)	mg/L	197.0	APHA 4500:(CI-)-B

End of Test Report*

CHECKED BY SHRADDHA GUPTA

Page 1 of 1

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-10, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

ETS/2110-2/07/2023 TEST REPORT NO .:

URLNO.TC877123000021102F

DATE OF REPORT: 28.07.2023

WASTE WATER SAMPLE ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4.SITE-IV.SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

Date of Sampling Analysis Start Date : 24.07.2023 24.07.2023

Analysis End Date

28.07.2023

Sample ID No Sampling Done By : 2110-2

Sample Description

: ETS STAFF

Sampling Location

S.T.P

S.T.P. OUTLET

Sampling Method

ETS/STP/WATER-02

Sample Quantity **Packing Condition** 2.0 Ltr. SEALED

Packed In

: P.V.C. CANE

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1	рН		7.08	6.5 - 9.0	APHA 4500-H+
2	Total Suspended Solids,(TSS)	mg/L	11.7	< 50	APHA 2540-D
3	Total Dissolved Solids,(TDS)	mg/L	1401.0	2100	APHA 2540-C
4	Oil & Grease, (O & G)	mg/L	2.3	10	APHA 5520-D
5	Biological Oxygen Demand(BOD _{3d} 27 [©] C)	mg/L	12.0	20	IS: 3025 (Part-44)
6	Chemical Oxygen Demand,(COD)	mg/L	43.0	Not Specified	APHA 5220-B
7	Sulphate,(SO ₄)	mg/L	32.0	Not Specified	APHA 4500:(SO ₄)-E
8	Chloride,(CI)	mg/L	89.0	Not Specified	APHA 4500:(CI-)-B

*****End of Test Report****

CHECKED BY SHRADDHA GUPTA Page 1 of 1

Format No ETS/LAB/TR-10, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO.: ETS/2119/07/2023 URLNO.TC877123000002119F DATE OF REPORT: 28.07.2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

Date of Monitoring : 25.07.2023
Analysis Start Date : 26.07.2023
Analysis End Date : 28.07.2023

Analysis End Date : 28.07.2023

Duration Of Monitoring : 25.07.2023 To 26.07.2023

Time Of Monitoring : 10.40 AM To 10.40 AM (CO&O₃ for 1.0 Hrs.)

Sample ID No : 2119

Sampling Done By : ETS STAFF

Sampling Location : NEAR TRANSPORT AREA

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 1.5 METER FROM GROUND LEVEL

Weather Condition : CLEAR Ambient Temperature: 38.0 °C

Wind Direction : E To W

Equipment Used : Respirable Dust Sampler (PM₁₀) + Fine Particulate Sampler (PM_{2.5})

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1	Particulate Matters,(PM ₁₀)	μg/m³	91.5	For 24 Hrs.=100	IS 5182 (Part-23)
2	Particulate Matters,(PM _{2.5})	μg/m³	35.9	For 24 Hrs.=60	IS 5182 (Part-24)
3	Sulphur Dioxide, (SO ₂)	μg/m³	12.4	For 24 Hrs.=80	IS: 5182 (Part-2)
4	Nitrogen Dioxide,(NO ₂)	μg/m³	26.8	For 24 Hrs.=80	IS: 5182 (Part-6)
5	Ammonia,(NH ₃)	µg/m³	<5.0	For 24 Hrs.=400	IS 5182 (Part-25)
6	Ozone,(O ₃)	µg/m³	17.0	For 1 Hrs.=180	IS: 5182 (Part9)
7	Lead,(Pb)	μg/m³	<0.05	For 24 Hrs.=1	IS 5182 (Part-22)

Page 1 of 2

CHECKED BY SHRADDHA GUPTA

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

Note:-

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO.: ETS/2119/07/2023

DATE OF REPORT: 28.07.2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
8	Arsenic,(As)	ng/m³	<1.0	For Annual=06	IS 5182 (Part-22)
9	Nickel,(Ni)	ng/m³	<1.0	For Annual=20	CPCB,Vol1, Pg48
10	Carbon Monoxide,(CO)	mg/m³	0.56	For 1 Hrs.=4	IS 5182 : Part 10
11	Benzo (a) Pyrine (BaP)	ng/m³	<0.05	For Annual=01	IS: 5182 (Part-12)
12	Benzene,(C ₆ H ₆)	µg/m³	<1.0	For 24 Hrs.=5	IS 5182 (Part-11)

End of Test Report

SHRADDHA GUPTA

Page 2 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

URLNO.TC877123000002120F TEST REPORT NO.: ETS/2120/07/2023 DATE OF REPORT: 28.07.2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TATA STEEL LIMITED

23/4,SITE-IV,SAHIBABAD INDUSTRIAL AREA,SAHIBABAD

GHAZIABAD U.P.

25.07.2023 **Date of Monitoring Analysis Start Date** 26.07.2023 **Analysis End Date** 28.07.2023

25.07.2023 26.07.2023 **Duration Of Monitoring** To

To (CO&O3 for 1.0 Hrs.) Time Of Monitoring 10.40 AM 10.40 AM

Sample ID No 2120

Sampling Done By **ETS STAFF**

Sampling Location NEAR ETP AREA Sampling Method ETS/STP/AIR-01

Sampling Machine Placed At Height 1.5 METER FROM GROUND LEVEL

Ambient Temperature: Weather Condition CLEAR 38.0

Wind Direction E To W

Fine Particulate Sampler (PM2.5) **Equipment Used** Respirable Dust Sampler (PM10) +

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1	Particulate Matters,(PM ₁₀)	μg/m³	85.7	For 24 Hrs.=100	IS 5182 (Part-23)
2	Particulate Matters,(PM _{2.5})	μg/m³	33.5	For 24 Hrs.=60	IS 5182 (Part-24)
3	Sulphur Dioxide, (SO ₂)	μg/m³	12.4	For 24 Hrs.=80	IS: 5182 (Part-2)
4	Nitrogen Dioxide,(NO ₂)	µg/m³	24.8	For 24 Hrs.=80	IS: 5182 (Part-6)
5	Ammonia,(NH ₃)	µg/m³	<5.0	For 24 Hrs.=400	IS 5182 (Part-25)
6	Ozone,(O ₃)	µg/m³	16.0	For 1 Hrs.=180	IS: 5182 (Part9)
7	Lead,(Pb)	μg/m³	<0.05	For 24 Hrs.=1	IS 5182 (Part-22)

Page 1 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.

CHECKED B

SHRADDHA GUPTA

5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.







(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO.: ETS/2120/07/2023

DATE OF REPORT: 28.07.2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
8	Arsenic,(As)	ng/m³	<1.0	For Annual=06	IS 5182 (Part-22)
9	Nickel,(Ni)	ng/m³	<1.0	For Annual=20	CPCB,Vol1, Pg48
10	Carbon Monoxide,(CO)	mg/m ³	0.46	For 1 Hrs.=4	IS 5182 : Part 10
11	Benzo (a) Pyrine (BaP)	ng/m³	<0.05	For Annual=01	IS: 5182 (Part-12)
12	Benzene,(C ₆ H ₆)	μg/m³	<1.0	For 24 Hrs.=5	IS 5182 (Part-11)

*****End of Test Report*

SHRADDHA GUPTA

Page 2 of 2

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .: ETS/2121/07/2023 URLNO.TC877123000002121F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

: 25.07.2023 **Date Of Sampling Analysis Start Date** 26.07.2023 : 28.07.2023 **Analysis End Date** : 30.0 MIN **Duration Of Sampling**

: 2121 Sample ID No.

: ETS STAFF Sampling Done By

: ETS/STP/STACK-01 Sampling Method BOILER NO.1(UP - 5447) Stack Attached To

10.0 TPH Capacity Of Stack 602NM3/HR Quantity Of Fuel Used

: L.N.G Type Of Fuel Used : 38.0 MTR. Stack Height Above Ground : 1000.0 MM Stack Dia At The Top

: M.S Material Of Construction Attached APCS

: 24.0 HOURS PER DAY Normal Operating Schedule

: 34.0°C **Ambient Temperature** : 160.0°C Flue Gas Temperature

: 9.2 MTR./SEC. Velocity Of Flue Gases : 25999.2 m³/hr Quantity Of Emission Discharged

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	23.2	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO2)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	11.3	IS: 13270: 2008
7	Lead,(Pb)	mg/Nm ³	< 0.05	USEPA 6010D
8	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

CHECKED BY SHRADDHA GUPTA Page 1 of 2

AUTHORIZED SIGNATORY

75-LAS Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.









(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2121/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
9	Acid Mist (HCL)	mg/Nm ³	<0.02	Volumetric Method

End of Test Report**

SHRADDHA GUPTA

Page 2 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 ab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .: ETS/2122/07/2023 URLNO.TC877123000002122F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

25.07.2023 **Date Of Sampling** 26.07.2023 **Analysis Start Date** 28.07.2023 **Analysis End Date** 30.0 MIN **Duration Of Sampling** 2122 Sample ID No.

ETS STAFF Sampling Done By

ETS/STP/STACK-01 Sampling Method Stack Attached To **BOILER NO.2(UP - 5446)**

10.0 TPH Capacity Of Stack 592NM3/HR Quantity Of Fuel Used

L.N.G Type Of Fuel Used 47.0 MTR. Stack Height Above Ground Stack Dia At The Top 1000.0 MM

M.S Material Of Construction Attached APCS

Normal Operating Schedule 24.0 HOURS PER DAY

: 38.0°C **Ambient Temperature** 176.0°C Flue Gas Temperature

7.3 MTR./SEC. Velocity Of Flue Gases : 20629.8 m³/hr **Quantity Of Emission Discharged**

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	23.8	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	11.5	IS: 13270: 2008
7	Zinc,(Zn)	mg/Nm³	< 0.05	USEPA 6010D

Page 1 of 2

CHECKED BY SHRADDHA GUPTA

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 ab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2122/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
8	Acid Mist (HCL)	mg/Nm ³	< 0.02	Volumetric Method

****End of Test Report****

CHECKED BY SHRADDHA GUPTA Page 2 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO.: ETS/2123/07/2023 URLNO.TC877123000002123F DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TATA STEEL LIMITED

23/4,SITE-IV,SAHIBABAD INDUSTRIAL AREA,SAHIBABAD

GHAZIABAD U.P.

 Date Of Sampling
 : 25.07.2023

 Analysis Start Date
 : 26.07.2023

 Analysis End Date
 : 28.07.2023

 Duration Of Sampling
 : 30.0 MIN

 Sample ID No.
 : 2123

Sampling Done By : ETS STAFF

Sampling Method : ETS/STP/STACK-01

Stack Attached To : CCL INCINERATOR OF PAINT FUMES

Capacity Of Stack :

Quantity Of Fuel Used : ...

Type Of Fuel Used : L.N.G
Stack Height Above Ground : 40.0 MTR.

Stack Dia At The Top : 1980.0 MM

Material Of Construction : M.S

Attached APCS :

Normal Operating Schedule : 24.0 HOURS PER DAY

Ambient Temperature : 38.0°C Flue Gas Temperature : 157.0°C

Velocity Of Flue Gases : 12.8 MTR./SEC.

Quantity Of Emission Discharged : 141811.84 m³/hr

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	26.7	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen (NOX as NO2)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	11.4	IS: 13270: 2008
7	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

Page 1 of 2

CHECKED BY

AUTHORIZED SIGNATORY

*Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 ab In-charge

Note:-

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.







(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2123/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method	
8	Alkali Fumes	mg/Nm ³	0.34	NIOSH	

*****End of Test Report****

CHECKED BY SHRADDHA GUPTA Page 2 of 2

AUTHORIZED SIGNATORY

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

URLNO.TC877123000002124F TEST REPORT NO .: ETS/2124/07/2023 DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TATA STEEL LIMITED

23/4,SITE-IV,SAHIBABAD INDUSTRIAL AREA,SAHIBABAD

GHAZIABAD U.P.

25.07.2023 Date Of Sampling 26.07.2023 **Analysis Start Date** 28.07.2023 Analysis End Date 30.0 MIN **Duration Of Sampling** 2124 Sample ID No.

ETS STAFF Sampling Done By

Sampling Method ETS/STP/STACK-01

Stack Attached To ECL-ALKALI FUMES EXHAUST

Capacity Of Stack

Quantity Of Fuel Used

: ELECTRICITY Type Of Fuel Used

22.0 MTR Stack Height Above Ground : 1000.0 MM Stack Dia At The Top

Material Of Construction M.S

Attached APCS

Normal Operating Schedule 24.0 HOURS PER DAY

: 38.0°C Ambient Temperature : 95.0°C Flue Gas Temperature

: 12.4 MTR./SEC. Velocity Of Flue Gases

35042.4 m³/hr Quantity Of Emission Discharged

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	13.5	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	8.7	IS: 13270: 2008
7	Lead,(Pb)	mg/Nm ³	< 0.05	USEPA 6010D
8	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

Page 1 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 N-charge

- Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.

CHECKED BY

SHRADDHA GUPTA

5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2124/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
9	Acid Mist (HCL)	mg/Nm ³	< 0.02	Volumetric Method
10	Alkali Fumes	mg/Nm ³	0.28	NIOSH

*****End of Test Report****

CHECKED BY SHRADDHA GUPTA Page 2 of 2

AUTHORIZED SIGNATORY

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .:

ETS/2125/07/2023

URLNO.TC877123000002125F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4.SITE-IV.SAHIBABAD INDUSTRIAL AREA,SAHIBABAD

GHAZIABAD U.P.

25.04.2023 Date Of Sampling 26.04.2023 **Analysis Start Date** 28.07.2023 Analysis End Date : 30.0 MIN **Duration Of Sampling** 2125 : Sample ID No.

ETS STAFF Sampling Done By

ETS/STP/STACK-01 Sampling Method

ACID FUMES OLD PICKLING

Stack Attached To

Capacity Of Stack **Quantity Of Fuel Used** Type Of Fuel Used

30.0 MTR. Stack Height Above Ground 800.0 MM Stack Dia At The Top F.R.P Material Of Construction

Attached APCS

AS PER REQUIREMENTS Normal Operating Schedule

: 38.0 °C **Ambient Temperature** : 98.0 °C Flue Gas Temperature

: 12.7 MTR./SEC. **Velocity Of Flue Gases** : 23874.04 m³/hr Quantity Of Emission Discharged

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	16.0	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	5.2	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO2)	mg/Nm³	12.1	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	0.35	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	0.81	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	8.0	IS: 13270: 2008
7	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

CHECKED BY SHRADDHA GUPTA Page 1 of 2

AUTHORIZED SIGNATORY

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2125/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
8	Acid Mist (HCL)	mg/Nm ³	< 0.02	Volumetric Method

End of Test Report**

CHECKED BY SHRADDHA GUPTA

Page 2 of 2

AUTHORIZED SIGNATORY

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .:

ETS/2126/07/2023

URLNO.TC877123000002126F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4.SITE-IV.SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

Date Of Sampling

25.07.2023

Analysis Start Date

26.07.2023

Analysis End Date

28.07.2023 30.0 MIN

Duration Of Sampling Sample ID No.

2126

Sampling Done By

ETS STAFF

Sampling Method

ETS/STP/STACK-01

Stack Attached To

ACID FUMES NEW PICKLING

Capacity Of Stack

Quantity Of Fuel Used

Type Of Fuel Used

30.0 MTR.

Stack Height Above Ground Stack Dia At The Top

650.0 MM

Material Of Construction

F.R.P

Attached APCS

Normal Operating Schedule

: AS PER REQUIREMENTS

Ambient Temperature

: 38.0 °C

Flue Gas Temperature

: 75.0 °C

Velocity Of Flue Gases

: 11.8 MTR./SEC.

Quantity Of Emission Discharged

: 14089.02 m³/hr

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	9.4	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen (NOX as NO2)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	11.8	IS: 13270: 2008
7	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

Page 1 of 2

CHECKED BY

ECH

SHRADDHA GUPTA

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.

2. The results indicated only refer to the tested samples and listed applicable parameters.

No complaint will be entertained if received after 7 days of issue of test report. 4. Our liability is limited to invoice value only.

5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2126/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
8	Acid Mist (HCL)	mg/Nm ³	<0.02	Volumetric Method

End of Test Report

CHECKED BY SHRADDHA GUPTA

Page 2 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 Lab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .: ETS/2127/07/2023 URLNO.TC877123000002127F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

Date Of Sampling

26.07.2023 26.07.2023

Analysis Start Date Analysis End Date

28.07.2023

Duration Of Sampling

30.0 MIN

Sample ID No.

: 2127

Sampling Done By

ETS STAFF

Sampling Method

ETS/STP/STACK-01

Stack Attached To

GP III NON OX

Capacity Of Stack

Quantity Of Fuel Used

L.N.G

Type Of Fuel Used

25.0 MTR.

Stack Height Above Ground

Stack Dia At The Top

860.0 MM

Material Of Construction

M.S

Attached APCS

Normal Operating Schedule

: 24.0 HOURS PER DAY

Ambient Temperature

: 38.0°C

Flue Gas Temperature

180.0°C

Velocity Of Flue Gases

12.1 MTR./SEC.

Quantity Of Emission Discharged

25290.32 m³/hr

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	17.1	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	11.8	IS: 13270: 2008
7	Lead,(Pb)	mg/Nm ³	< 0.05	USEPA 6010D
8	Zinc,(Zn)	mg/Nm³	< 0.05	USEPA 6010D

Page 1 of 2

CHECKED BY SHRADDHA GUPTA

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

Note:-

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2127/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method	
9	Acid Mist (HCL)	mg/Nm³	< 0.02	Volumetric Method	

*****End of Test Report****

CHECKED BY SHRADDHA GUPTA

Page 2 of 2

A Kolkkar Wittal

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

Note:

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed inimediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .:

ETS/2128/07/2023

URLNO.TC877123000002128F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

Date Of Sampling Analysis Start Date Analysis End Date

: 26.07.2023 26.07.2023 : 28.07.2023

Duration Of Sampling Sample ID No.

30.0 MIN : 2128

Sampling Done By

ETS STAFF

Sampling Method

ETS/STP/STACK-01

Stack Attached To

GP III HAG

Capacity Of Stack

Quantity Of Fuel Used

Type Of Fuel Used

L.N.G

Stack Height Above Ground Stack Dia At The Top

25.0 MTR. 500.0 MM

Material Of Construction

M.S

Attached APCS

Normal Operating Schedule

24.0 HOURS PER DAY

Ambient Temperature

38.0°C

Flue Gas Temperature

140.0°C

Velocity Of Flue Gases

10.7 MTR /SEC.

Quantity Of Emission Discharged

: 7559.55 m3/hr

S. No.	Test Parameter	Unit	Result	Test Method	
1	Particulate Matters,(PM)	mg/Nm ³	21.1	IS-11255 (Part-1)	
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)	
3	Oxide of Nitrogen (NOX as NO2)	mg/Nm ³	<5.0	IS-11255 (Part-7)	
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008	
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008	
6	Oxygen,(O2)	%v/v	9.7	IS: 13270: 2008	
7	Lead,(Pb)	mg/Nm³	< 0.05	USEPA 6010D	
8	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D	

Page 1 of 2

CHECKED BY SHRADDHA GUPTA

AUTHORIZED SIGNATORY

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters. 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.









(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2128/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
9	Acid Mist (HCL)	mg/Nm ³	< 0.02	Volumetric Method

End of Test Report*

CHECKED BY SHRADDHA GUPTA

Page 2 of 2

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .:

ETS/2129/07/2023

URLNO.TC877123000002129F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

Date Of Sampling **Analysis Start Date** : 26.07.2023 26.07.2023

Analysis End Date Duration Of Sampling 28.07.2023 30.0 MIN

Sample ID No.

2129

Sampling Done By

ETS STAFF

Sampling Method

ETS/STP/STACK-01

Stack Attached To

GP III ZINC POT FURNACE

Capacity Of Stack

Quantity Of Fuel Used

L.N.G

Type Of Fuel Used Stack Height Above Ground

25.0 MTR.

Stack Dia At The Top

400.0 MM

Material Of Construction

M.S

Attached APCS

Normal Operating Schedule

: 24.0 HOURS PER DAY : 38.0°C

Ambient Temperature Flue Gas Temperature

192.0°C

Velocity Of Flue Gases

: 11.6 MTR./SEC.

Quantity Of Emission Discharged

: 5245.05 m³/hr

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	27.5	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO2)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0 IS: 13270: 2008	
6	Oxygen,(O2)	%v/v	8.7	IS: 13270: 2008
7	Lead,(Pb)	mg/Nm ³	< 0.05	USEPA 6010D
8	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

Page 1 of 2

CHECKED BY

SHRADDHA GUPTA

For Enviro-Tec

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2129/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
9	Acid Mist (HCL)	mg/Nm ³	< 0.02	Volumetric Method

*****End of Test Report****

CHESKED BY SHRADDHA GUPTA

Page 2 of 2

AUTHORIZED SIGNATORY

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



(A GOVERNMENT APPROVED LAB)



email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .: ETS/2130/07/2023 URLNO.TC877123000002130F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4,SITE-IV,SAHIBABAD INDUSTRIAL AREA,SAHIBABAD

GHAZIABAD U.P.

26.07.2023 **Date Of Sampling** 26.07.2023 **Analysis Start Date** 28.07.2023 **Analysis End Date** : 30.0 MIN **Duration Of Sampling** 2130 : Sample ID No.

: ETS STAFF Sampling Done By

ETS/STP/STACK-01 Sampling Method

GP - IV FURNACE EXHAUST (DFH) Stack Attached To

Capacity Of Stack

Quantity Of Fuel Used L.N.G Type Of Fuel Used 25.0 MTR. Stack Height Above Ground 3800.0 MM Stack Dia At The Top

Material Of Construction M.S

Attached APCS

24.0 HOURS PER DAY Normal Operating Schedule

Ambient Temperature 38.0°C : 1820°C Flue Gas Temperature

10.4 MTR./SEC. Velocity Of Flue Gases : 424397.37 m³/hr Quantity Of Emission Discharged

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm³	25.7	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	8.9	IS: 13270: 2008
7	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

CHECKED BY SHRADDHA GUPTA Page 1 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

Note:-

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2130/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
8	Acid Mist (HCL)	mg/Nm ³	<0.02	Volumetric Method

*****End of Test Report*****

CHECKED BY SHRADDHA GUPTA Page 2 of 2

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 Lab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .:

ETS/2131/07/2023

URLNO.TC877123000002131F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4,SITE-IV,SAHIBABAD INDUSTRIAL AREA,SAHIBABAD

GHAZIABAD U.P.

: 26.07.2023 **Date Of Sampling** 26.07.2023 **Analysis Start Date** : 28.07.2023 **Analysis End Date** 30.0 MIN **Duration Of Sampling**

: 2131 Sample ID No.

: ETS STAFF Sampling Done By

ETS/STP/STACK-01 Sampling Method

GP - IV FURNACE EXHAUST (RTH) Stack Attached To

Capacity Of Stack

Quantity Of Fuel Used

L.N.G Type Of Fuel Used

25.0 MTR. Stack Height Above Ground 3400.0 MM Stack Dia At The Top

: M.S Material Of Construction

Attached APCS

: 24.0 HOURS PER DAY **Normal Operating Schedule**

: 38.0°C **Ambient Temperature** 185.0°C Flue Gas Temperature

: 12.4 MTR./SEC. **Velocity Of Flue Gases** : 405090.14 m³/hr **Quantity Of Emission Discharged**

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	27.3	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen,(NOX as NO2)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	10.2	IS: 13270: 2008
7	Zinc.(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

Page 1 of 2

CHECKED BY SHRADDHA GUPTA

AUTHORIZED SIGNATORY

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2131/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
8	Acid Mist (HCL)	mg/Nm ³	< 0.02	Volumetric Method

*****End of Test Report*****

CHECKED BY SHRADDHA GUPTA Page 2 of 2

AUTHORIZED SIGNAT

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 Lab In-charge

Note:-

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .: ETS/2132/07/2023 URLNO.TC877123000002132F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4.SITE-IV.SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

: 26.07.2023 Date Of Sampling 26.07.2023 **Analysis Start Date** 28.07.2023 **Analysis End Date** 30.0 MIN **Duration Of Sampling** : 2132 Sample ID No.

ETS STAFF Sampling Done By

ETS/STP/STACK-01 Sampling Method

GP - IV FURNACE EXHAUST (HAG) Stack Attached To

Capacity Of Stack **Quantity Of Fuel Used**

ELECTRICITY Type Of Fuel Used

25.0 MTR. Stack Height Above Ground 3400.0 MM Stack Dia At The Top

M.S Material Of Construction Attached APCS :

Normal Operating Schedule : 24.0 HOURS PER DAY

: 38.0°C **Ambient Temperature** 179.0°C Flue Gas Temperature

: 13.2 MTR./SEC. Velocity Of Flue Gases : 431224.99 m³/hr **Quantity Of Emission Discharged**

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	19.7	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	13.4	IS: 13270: 2008
7	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

Page 1 of 2

CHECKED BY SHRADDHA GUPTA

For Enviro-

AUTHORIZED SIGNATORY

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.







(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2132/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
8	Acid Mist (HCL)	mg/Nm ³	<0.02	Volumetric Method

*****End of Test Report****

CHECKED BY SHRADDHA GUPTA Page 2 of 2

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

Note:-

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO.: ETS/2133/07/2023 URLNO.TC877123000002133F DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

 Date Of Sampling
 : 26.07.2023

 Analysis Start Date
 : 26.07.2023

 Analysis End Date
 : 28.07.2023

 Duration Of Sampling
 : 30.0 MIN

 Sample ID No.
 : 2133

Sampling Done By : ETS STAFF

Sampling Method : ETS/STP/STACK-01

Stack Attached To : GP -1 (RTF)

Capacity Of Stack

Quantity Of Fuel Used

Type Of Fuel Used

Stack Height Above Ground

Stack Dia At The Top

:

25.0 MTR.

700.0 MM

Material Of Construction : M.S

Attached APCS :

Normal Operating Schedule : 24.0 HOURS PER DAY

Ambient Temperature : 38.0°C Flue Gas Temperature : 196.0°C

Velocity Of Flue Gases : 12.6 MTR./SEC.

Quantity Of Emission Discharged : 17447.72 m³/hr

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	26.82	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO2)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	10.2	IS: 13270: 2008
7	Lead,(Pb)	mg/Nm ³	< 0.05	USEPA 6010D
8	Zinc,(Zn)	mg/Nm ³	0.37	USEPA 6010D

Page 1 of 2

CHECKED BY SHRADDHA GUPTA

AUTHORIZED SIGNATORY

For Enviro-Tech Service

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

Note:

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory



(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

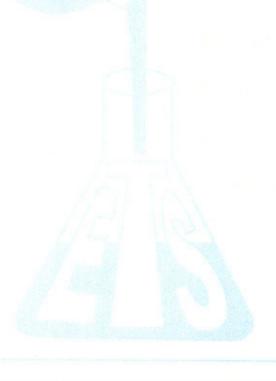
ETS/2133/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
9	Acid Mist (HCL)	mg/Nm ³	< 0.02	Volumetric Method

End of Test Report***



CHECKED BY SHRADDHA GUPTA Page 2 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022 ab In-charge

Note:-

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .: ETS/2134/07/2023 URLNO.TC877123000002134F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

TATA STEEL LIMITED

23/4,SITE-IV,SAHIBABAD INDUSTRIAL AREA,SAHIBABAD

GHAZIABAD U.P.

26.07.2023 Date Of Sampling 26.07.2023 **Analysis Start Date** 28.07.2023 Analysis End Date : 30.0 MIN **Duration Of Sampling** 2134 : Sample ID No.

ETS STAFF Sampling Done By

ETS/STP/STACK-01 Sampling Method

GP -1 (HAG) Stack Attached To

Capacity Of Stack

Quantity Of Fuel Used Type Of Fuel Used L.N.G 5.0 MTR. Stack Height Above Ground 500.0 MM Stack Dia At The Top

M.S Material Of Construction

Attached APCS

Normal Operating Schedule 24.0 HOURS PER DAY

Ambient Temperature 38.0°C : 154.0°C Flue Gas Temperature

11.3 MTR./SEC. Velocity Of Flue Gases : 7983.45 m³/hr Quantity Of Emission Discharged

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	21.6	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270: 2008
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270: 2008
6	Oxygen,(O2)	%v/v	11.5	IS: 13270: 2008
7	Zinc,(Zn)	mg/Nm ³	0.42	USEPA 6010D

*****End of Test Report****

Page 1 of 1

CHECKED BY SHRADDHA GUPTA

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-01, Issue No. 06, Date 01.05.2022, Amd. No. 05 Date 01.05.2022

Lab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.



6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO .:

ETS/2135/07/2023

URLNO.TC877123000002135F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4, SITE-IV, SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

26.07.2023

26.07.2023

28.07.2023 30.0 MIN

Date Of Sampling **Analysis Start Date Analysis End Date Duration Of Sampling**

Sample ID No. 2135

ETS STAFF Sampling Done By

ETS/STP/STACK-01 Sampling Method

ARP - I Stack Attached To Capacity Of Stack **Quantity Of Fuel Used**

L.N.G Type Of Fuel Used 27.5 MTR. Stack Height Above Ground 600.0 MM Stack Dia At The Top : F.R.P. **Material Of Construction**

Attached APCS

Normal Operating Schedule : AS PER REQUIREMENTS

: 38.0°C **Ambient Temperature** 98.0°C Flue Gas Temperature

: 12.5 MTR./SEC. **Velocity Of Flue Gases** : 12717.00 m³/hr Quantity Of Emission Discharged

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm³	21.6	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen (NOX as NO2)	mg/Nm³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270
6	Oxygen,(O2)	%v/v	12.8	IS: 13270

Page 1 of 2

CHECKED BY SHRADDHA GUPTA

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-05, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019 Lab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.





An Analytical Laboratory





Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2135/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method	
7	Zinc,(Zn)	mg/Nm ³	< 0.05	ETS/STP/STACK-08	
8	Acid Mist (HCL)	mg/Nm ³	< 0.02	Volumetric Method	

*****End of Test Report*****

SHRADDHA GUPTA

Page 2 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-05, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019 Lab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063





TEST REPORT

TEST REPORT NO :

ETS/2136/07/2023

URLNO.TC877123000002136F

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TATA STEEL LIMITED

23/4.SITE-IV.SAHIBABAD INDUSTRIAL AREA, SAHIBABAD

GHAZIABAD U.P.

26.07.2023 **Date Of Sampling** 26.07.2023 **Analysis Start Date** 28.07.2023 Analysis End Date 60.0 MIN **Duration Of Sampling**

2136 Sample ID No.

ETS STAFF Sampling Done By

ETS/STP/STACK-01 Sampling Method

ARP - II Stack Attached To

Capacity Of Stack Quantity Of Fuel Used

L.N.G Type Of Fuel Used 27.5 MTR. Stack Height Above Ground 600.0 MM Stack Dia At The Top : F.R.P Material Of Construction

Attached APCS

Normal Operating Schedule : 24.0 HOURS PER DAY

: 38.0°C **Ambient Temperature** : 94.0°C Flue Gas Temperature

: 11.4 MTR./SEC. **Velocity Of Flue Gases** 11597.90 m3/hr Quantity Of Emission Discharged

S. No.	Test Parameter	Unit	Result	Test Method
1	Particulate Matters,(PM)	mg/Nm ³	27.8	IS-11255 (Part-1)
2	Sulphur Dioxide,(SO ₂)	mg/Nm ³	<5.0	IS-11255 (Part-2)
3	Oxide of Nitrogen, (NOX as NO2)	mg/Nm ³	<5.0	IS-11255 (Part-7)
4	Carbon Monoxide,(CO)	%v/v	<0.1	IS: 13270
5	Carbon Dioxide,(CO ₂)	%v/v	<1.0	IS: 13270
6	Oxygen,(O2)	%v/v	11.3	IS: 13270
7	Zinc,(Zn)	mg/Nm ³	< 0.05	USEPA 6010D

Page 1 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-05, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

Lab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.

6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.









(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email: etslab2012@gmail.com | Website: www.etslab.in | Ph.: 9911516076, 9811736063



TEST REPORT

TEST REPORT NO .:

ETS/2136/07/2023

DATE OF REPORT: 28.07.2023

STACK EMISSION MONITORING AND ANALYSIS REPORT

S. No.	Test Parameter	Unit	Result	Test Method
8	Acid Mist (HCL)	mg/Nm ³	<0.02	Volumetric Method

*****End of Test Report*****

Page 2 of 2

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-05, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

Lab In-charge

- 1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
- 2. The results indicated only refer to the tested samples and listed applicable parameters.
- 3. No complaint will be entertained if received after 7 days of issue of test report.
- 4. Our liability is limited to invoice value only.
- 5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
- 6. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



UTTAR PRADESH POLLUTION CONTROL BOARD

Building. No TC-12V Vibhuti Khand, Gomti Nagar, Lucknow-226010

Phone:0522-2720828,2720831, Fax:0522-2720764, Email: info@uppcb.com, Website: www.uppcb.com

CONSENT ORDER

Ref No. -97147/UPPCB/Ghaziabad(LAB)/CTO/water/GH AZIABAD/2020

To,

Shri RAJEEV SINGHAL M/s TATA STEEL BSL LIMITED

Plot no - 23/4 Site-4, Sahibabad Industrial area, Sahibabad, Ghaziabad, uttar

Pradesh.,GHAZIABAD,201010

GHAZIABAD

Sub: Consent under Section 25/26 of The Water (Prevention and control of Pollution) Act, 1974 (as amended) for discharge of effluent to M/s. TATA STEEL BSL LIMITED

Reference Application No :8882210 Dated :22/12/2020

- 1. For disposal of effluent into water body or drain or land under The Water (Prevention and control of Pollution) Act,1974 as amended (here in after referred as the act) M/s. TATA STEEL BSL LIMITED is hereby authorized by the board for discharge of their industrial effluent generated through ETP for irrigation/river through drain and disposal of domestic effluent through septic tant/soak pit subject to general and special conditions mentioned in the annexure ,in refrence to their foresaid application .
- 2. This consent is valid for the period from 24/06/2020 to 31/12/2024.
- 3. In spite of the conditions and provisions mentioned in this consent order UP Pollution Control Board reserves its right and powers to reconsider/amend any or all conditions under section 27(2) of the Water (Previntion and Controt of Pollution) Act, 1974 as amended.

This consent is being issued with the permission of competent authority.

For and on behalf of U.P. Pollution Control Board

C.E.O

Dated: 22/12/2020

C-1

Enclosed : As above (condition of consent):

Copy to: Regional Office, U.P. Pollution Control Board, Ghaziabad

C.E.O

U.P. POLLUTION CONTROL BOARD, LUCKNOW

Annexure to Consent issued to M/s.TATA STEEL BSL LIMITED vide

Consent Order No. 8882210/ Water

CONDITIONS OF CONSENT

Dated: 22/12/2020

1. This consent is valid only for the approved production capacity of COLD ROLLED STRIPS & SHEETS 1250 MT/day and GALVANIZED PLAIN / CORRUGATED SHEETS 1250 MT/day.

2. The quantity of maximum daily effluent discharge should not be more than the following:

Effluent Discharge Details					
S.No Kind of Effulant		Maximum daily discharge,KL/day	Treatment facility and discharge point		
1	Domestic	60 KLD	STP		
2	Industrial	800 KLD	ETP		

3. Arrangement should be made for collection of water used in process and domestic effluent separately in closed water supply system. The treated domestic and industrial effluent if discharged outside the premises, if meets at the end of final discharge point, arrangement should be made for measurement of effluent and for collecting its sample. Except the effluent informed in the application for consent no other effluent should enter in the said arrangements for collection of effluent. It should also be ensured that domestic effluent should not be discharged in storm water drain.

4(a) The domestic effluent should be treated in treatment plant so that the should be in conformity with the following norms dated treated effluent.

Domestic Effulant					
S.No Parameter Standard					
1	Quantity of Discharge	60 KLD			
2	Total Suspended Solids	As per E.P Rules 1986			
3	BOD	As per E.P Rules 1986			
4	COD	As per E.P Rules 1986			
5	Oil & Grease	As per E.P Rules 1986			

4(b). The industrial effluent should be treated in treatment plant so that the treated effluent should be in conformity with the following norms.

Industrial Effulant					
S.No	Parameter	Standard			
1	Total Suspended Solids	As per E.P Rules 1986			
2	BOD	As per E.P Rules 1986			
3	COD	As per E.P Rules 1986			
4	Oil & Grease	As per E.P Rules 1986			
5	Quantity of Discharge	800 KLD			

- 5. Effluent generated in all the processes, bleed water, cooling effluent and the effluent generated from washing of floor and equipments etc should be treated before its disposal with treated industrial effluent so that it should be according to the norms prescribed under The Environment (Protection) Act,1986 or otherwise mandatory.
- 6. The other pollutant for which norms have not been prescribed, the same should not be more than the norms prescribed for the water used in manufacturing process of the industry .
- 7. The method for collecting industrial and domestic effluent and its analysis should be as per legal Indian standards and its subsequent amendments/standards prescribed under The Environment (Protection) Act, 1986.

- 8. The treated domestic and industrial effluent be mixed (as per the provisions of Condition No. 2) and disposed of on one disposal point. This common effluent disposal point should have arrangement for flow meter/V Notch for measuring effluent and its log book be maintained .
- 9. The Unit will file the renewal application at least 2 months prior to the expiry of this Order.

Specific Conditions:

- 1- This consent is valid only for products and quantity mentioned above. Industry shall obtain prior approval before making any modification in product/process /fuel/ Plant machinery failing which consent would be deemed void.
- 2- The industry shall comply with various provisions of Air (Prevention and Control of Pollution) Act 1981 as amended, Water (Prevention and Control of Pollution) Act 1974 as amended and all other applicable rules notified under E.P. Act 1986.
- 3- The industry shall dispose the hazardous waste through authorized recyclers/TSDF and comply with the provisions of Hazardous and Other Wastes (Management and Trans-boundary Movement) Amendment Rules, 2016 as amended.
- 4- The industry should be operated in such a way so that there is no adverse impact on public and environment.
- 5- The industry shall submit quarterly monitoring reports of treated effluent from a certified / approved laboratory under E.P. Act 1986
- 6- The industry will ensure the continuous and uninterrupted data supply from the OCEEMS to the CPCB server. The unit shall maintain strict supervision on fluctuations in operating parameters with respect to each treatment unit of the Effluent treatment plant.
- 7- The industry should ensure the operation of the ETP in such a manner that it confirm the standards lay down under the E.P. Rules 1986
- 8- The treated effluent shall be allowed to be discharged in the ambient environment only after exhausting options for reuse in industrial process/irrigation in order to minimize freshwater usage.
- 9- Electromagnetic Flow meter to be installed in all water abstraction points and usage of fresh water to be minimized.
- 10- The industry shall obtain No Objection Certificate (NOC) from the CGWA or the competent authority for abstraction of groundwater within six months failing which this CTO shall stand automatically revoked.
- 11- The industry shall submit the point wise compliance report of the conditions imposed in the CTO issued by the Board for year 2019 and audited balance sheet for the current year and the details of fees deposited during last three years within a month otherwise this CTO may be revoked.
- 12- If the CPCB or UPPCB issues the Closure order against the industry this consent order stands automatically suspended for that period.
- 13- The industry shall submit Environmental Statement in prescribed form V as per rule no.14 of E.P Rules 1986.
- 14- The Industry shall abide by orders / directions issued by Hon'ble Supreme Court Hon'ble High Court, Hon'ble National Green Tribunal, Central Pollution Control Board and U.P Pollution Control Board for protection and safeguard of environment from time to time.
- 15- The industry shall develop proper green belt and rain water harvesting system as per guidelines. For green belt at least 8 feet height plants should be planted which shall be properly protected as proper irrigation and maneuvering arrangements shall be made. For the development of the green belt the guidelines issued vide Board office order no. H10405/220/2018/02 Dt. 16-02-2018 shall be complied.
- 16- The industry shall submit the copy of Certificate of Registration in compliance of the section no. 11 of The Uttar Pradesh Ground Water (Management and Regulation) Act, 2019 (U.P. Act No-13 of 2019) for existing users of ground water in notified areas within six months failing which this CTO shall stand automatically revoked.
- 17- The The Industry shall ensure the time bound compliance of stringent norms as published by the UPPCB vide office memorandum no.H48273/C-1/NGT-83/2020, dt. 27-02-2020 (available at URL uppcb.com/pdf/uppcb_28022020.pdf) in compliance of The Hon'ble NGT order dt. 14.11.2019 in O.A. no. 1038/2018.
- 18. The unit shall submit a detailed report within 3 months of operation on expanded capacity on the observation made during technical evaluation of CTO application alongwith which is as under
- "1- Operational water balance has not been verified during inspections. The monitored inputs and outputs in water balance structure still need to be identified, marked and interpreted appropriately. Water balance diagram needs to be structured accordingly and commented upon. 2- Total water consumption has to be categorized and verified during inspection which has not been done. 3- Similarly effluent discharges have not been measured appropriately and categorized. 4- As per the comment made in point 22 that "maximum treatment capacity of ETP is of 480 KLD. In that case the average discharge of approximately 350 KLD still does not utilized full hydraulic capacity of ETP " No comments on the impact of this deficit is made in the report. 5- Further, unit wise water pollution load reduction has not been verified whereas ETP comprises of various unit operations. 6- ETP inlet and outlet sample analysis dated 28-12-2019 presents error in analysis, since sample collection date and analysis start date have sufficient gaps. No comments on that is given in the report. Also concentration of pollutants reported are in decimals whereas analysis is said to be done as per offline standard methodology. Moreover, the situation becomes more precarious when based on such

analysis of ETP inlet and outlet the efficiency of ETP is calculated. 7- ETP efficiency as per the aforesaid analysis has been found to be just 10% for TSS removal, 22% BOD removal and 48% for COD removal. ETP inlet and outlet values indicates that there is no need of ETP as such. This discrepancy needs to be sorted out since the foundation of recommendation itself is very shaky on technical analysis terms. Therefore screen this fault seriously. ETP as such has just turned out to be a polishing unit rather than treatment unit. 8- STP analysis has not been done. 9- A perusal of different stack emission monitoring reports shows cumulative buildup of particulate matter in concentration in one premises itself in close vicinity. This concentration buildup is not reflected in ambient air quality monitoring. As far as achievement of standards is concerned emission factors first needs to be established and then compared to the standards which has not been done in this case. 10- Compute source air pollution load and give a comparison with finding of ambient air quality analysis so that the situation is adjudged accordingly.

Issued with the permission of competent authority.

For and on behalf of U.P. Pollution Control Board.

C.E.O

C-1



UTTAR PRADESH POLLUTION CONTROL BOARD

Building. No TC-12V Vibhuti Khand, Gomti Nagar, Lucknow-226010

Phone:0522-2720828,2720831, Fax:0522-2720764, Email: info@uppcb.com, Website: www.uppcb.com

CONSENT ORDER

Ref No. - Dated: 22/12/2020 96499/UPPCB/Ghaziabad(LAB)/CTO/air/GHAZIABAD/2020

To,

Shri RAJEEV SINGHAL
M/s TATA STEEL BSL LIMITED
Plot no - 23/4 Site-4, Sahibabad Industrial area, Sahibabad, Ghaziabad, uttar
Pradesh.,GHAZIABAD,201010
GHAZIABAD

Sub: Consent under section 21/22 of the Air (Prevention and control of Pollution) Act, 1981 (as amended) to M/s. TATA STEEL BSL LIMITED

Reference Application No. 8799665

- 1. With reference to the application for consent for emission of air pollutants from the plant of M/s TATA STEEL BSL LIMITED. under Air Act 1981. It is being authorised for said emissions, as per the standards, in environment, by the Board as per enclosed conditions.
- 2. This consent is valid for the period from 24/06/2020 to 31/12/2024.
- 3. Inspite of the conditions and provisions mentioned in this consent order UP Pollution Control Board reserves its right and powers to reconsider/amend any or all conditions under section 21 (6) of the Air (Previntion and Controt of Pollution) Act, 1981 as amended.

This consent is being issued with the permission of competent authority.

For and on behalf of U.P. Pollution Control Board

C.E.O

Dated: 22/12/2020

C-1

Enclosed : As above (condition of consent):

Copy to: Regional Office, U.P. Pollution Control Board, Ghaziabad

C.E.O

U.P. Pollution Control Board

Dated: 22/12/2020

CONDITIONS OF CONSENT

- 1. This consent is valid only for the approved production capacity of COLD ROLLED STRIPS & SHEETS 1250 MT/day and GALVANIZED PLAIN / CORRUGATED SHEETS 1250 MT/day.
- 2. This consent is valid only for products and quantity mentioned above. Industry shall obtain prior approval before making any modification in product/ process /fuel/ plant machinery failing which consent would be deemed void.
- 3(a) The maximum rate of emission of flue gas should not be more than the emission norms for the stacks.
- 3(b) Air Pollution Source Details.

	Air Pollution Source Details						
S.No	Air Polution Source	Type of Fuel	Stack No.	Parameters	Height		
1	Pickling Section	process emission	1	Particulate Matter	27 mt. stack height from the G.L with 4 numbers wet scrubbers		
2	Heating in galvanising line	LNG	2	Particulate Matter	47 mt. stack height from the G.L		
3	2X 5 TPH Boiler	LNG	3	Sulphur Dioxide	47 mt. stack height from the G.L		
4	2X 10 TPH Boiler	LNG	4	Sulphur Dioxide	38 mt.stack from G.L		
5	2X 12 MW D.G set	L.S.H.S	5,6	Sulphur Dioxide	Each minimum 105 mt. from the G.L		

3(c) The emissions by various stacks into the environment should be as per the norms of the Board.

Emission Quality Details Detail						
S.No	Stack No	Parameter	Standard			
1	1	Particulate Matter	As per E.P Rules 1986			
2	2	Particulate Matter	As per E.P Rules 1986			
3	3.4.5.6	Sulphur Dioxide	As per E.P Rules 1986			

- 4. Quantity of other pollutants should also be as per the norms prescribed by the Board/MOEF & CC/or otherwise mandatory .
- 5. The equipment for air pollution control system and monitoring ,as proposed by the industry and approved by the Board should be installed in their premises itself.
- 6. The modification or installation in the existing pollution control equipments should be done only by prior approval of Board .
- 7. The operation of air pollution control system and maintenance be done in such a way that the quantity of pollutants should be in accordance with the standards prescribed by the Board/MoEF & CC/or otherwise mandatory.
- 8. Unit should do provisions for fugitive emissions chimney/stack as per the norms of the Board/MOEF & CC/or otherwise mandatory .

9. The unit should submit the stack emissions monitoring report within one month from issuance of consent order along with the point wise compliance report of the consent order. Further quarterly monitering report should be submitted.

The Unit will file the renewal application at least 2 months prior to the expiry of this Order. Specific Conditions:

- 1. The industry should be operated in such a manner that it does not adversely affect the environment and the solid waste generated such as ash etc. be disposed in eco friendly manner.
- 2. Any source of emission other than that mentioned in the Air consent seeking application will not be permitted by the Board. The industry shall only use PNG as fuel once PNG pipeline is available in that industrial area.
- 3. The industry should ensure the operation of the air pollution control system (APCS) in such a manner that the air emission confirms with the standards prescribed under the E.P Act 1986 as amended and will ensure the continuous and uninterrupted data supply from the OCEEMS to the SPCB and CPCB server.
- 4. The industry shall submit the point wise compliance report of the conditions imposed in the CTE issued to the unit for the expansion in the production capacity and the audited balance sheet for the current year within two months otherwise this CTO may be revoked.
- 5. This consent is valid only for products and quantity mentioned above. Industry shall obtain prior approval before making any modification in product/ process /fuel/ plant machinery failing which consent would be deemed void.
- 6. The industry shall abide by orders / directions issued by Hon'ble Supreme court Hon'ble High Court, Hon'ble National Green tribunal, Central Pollution Control Board and U.P Pollution Control Board for protection and safe guard of environment from time to time.
- 7. The industry shall submit monitoring reports of all stacks and ambient air quality from a certified /approved laboratory under E.P. Act 1986.
- 8. The industry shall comply with various provisions of Air (Prevention and Control of Pollution) Act 1981 as amended, Water (Prevention and Control of Pollution) Act 1974 as amended and all other applicable rules notified under E.P. Act 1986.
- 9. The industry shall submit the details of fees deposited during last three years within a month.
- 10. The industry shall obtain prior consents in the event of any addition of new emission generation sources such as-Boiler/ Furnace/ Heaters/ D.G. Sets or alteration of existing emission sources in accordance with section- 21/22 of air Act 1981 (as amended respectively).
- 11. The use of Pet coke and Furnace oil as a fuel is restricted in compliance of the Hon'ble Supreme court order.
- 12. The Industry will use minimum 20% Bio Briquette as fuel in the Boiler depending upon its availability.
- 13. The Industry shall submit Environmental Statement in prescribed format as per rule no.14 as per E.P Rules 1986.
- 14. Minimum 33% of the land on which industry is established will be covered by the plantation of tall trees of suitable species as per the guidelines set up by the Board vide its Office Order no.H-16405/220/2018/02 dt. 16/02/2018. The copy of this guideline is available at URLhttp://www.uppcb.com/pdf/Green-Belt-Guidle_160218.pdf.
- 15. The Industry shall ensure the time bound compliance of stringent norms as published by the UPPCB vide office memorandum no.H48273/C-1/NGT-83/2020, dt. 27-02-2020 (available at URL uppcb.com/pdf/uppcb_28022020.pdf) in compliance of The Hon'ble NGT order dt. 14.11.2019 in O.A. no. 1038/2018.

Issued with the permission of competent authority.

For and on behalf of U.P. Pollution Control Board.