

APSEZL/EnvCell/2023-24/045

Date: 11.09.2023

To
Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan,
Sector-10-A, Gandhinagar-382010

Dear Sir,

Sub: Environmental Statement for the financial year ending 31st March, 2023 for **M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.**

Ref: PCB ID:- 10602, Consent Order No. AWH-121264 Valid up to: 02.09.2027

With reference to the above-mentioned subject and reference, please find enclosed Environmental Statement in Form V prescribed under Rule 14 of the Environment (Protection) Rules 1986, for **M/s Adani Mundra SEZ Infrastructure Pvt. Ltd., Plot No. / Survey No. 141 (Part), Village & Taluka: Mundra, Dist. Kutch - 370421** for the financial year ending 31st March 2023.

Thank you,

Yours faithfully,
For **Adani Mundra SEZ Infrastructure Pvt. Ltd.**

(Signature)

Authorized Signatory

Encl: As above.

Copy to: The Regional Officer, Gujarat Pollution Control Board, Gandhidham.

(Signature)
14/09/2023
Gujarat Pollution Control Board
Head Office
Sector No.-10-A,
Gandhinagar-382010

Adani Mundra SEZ Infrastructure Pvt Ltd
Samudra Township, Nr IOCL Terminal
Old Port Road, Taluka Mundra
Mundra, Kutch 370 421
Gujarat, India

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FORM V
(See Rule 14)

Environmental Statement for the Financial Year ending 31st March 2023

PART – A

- (i) Name and address of the Owner/
Occupier of the Industry Operation or
Process : Mr. Sujalkumar Shah
CEO – Mundra & Tuna Port
Adani Ports and SEZ Limited
4th Floor, Adani House,
Mundra, Kutch – 370421.
Ph No. (02838) 255000
- (ii) Industry Category : Red-Large
Primary (STC Code) NA
Secondary (STC Code) NA
- (iii) Production Capacity : Township and Area Development of Housing
Colonies, Public Amenities and Other Physical
infrastructure projects
- (iv) Year of Establishment : 2010
- (v) Date of last Environment Statement
submitted : 25/06/2022

PART – B

Water and Raw Material Consumption

(i) Water Consumption

Water Consumption Cu. Mtr./Day	Average
Process	Nil
Cooling	Nil
Domestic (included Horticulture/Gardening)	1091.43 m ³ /day

*Details of month wise Water Consumption are attached as **Annexure – 1**.

Name of Products	Process Water Consumption per unit of Product Output	
	During the current financial year (2021-22)	During the current financial year (2022-23)
Infrastructure Project*	--	--

* **Unit does not go under any manufacturing process. Unit involves Infrastructure project including township and area development of housing colonies, public amenities and other physical infrastructure projects. The water consumed was mainly in horticulture / gardening and domestic activity. Construction of 1368 no. of dwelling units is completed along with a hostel blocks, multispecialty hospital and shopping mall till date.**

(ii) Raw Material Consumption

Name of Raw Material	Name of Products	Consumption of Raw Material per Unit of output	
		During the current financial year (2021-22)	During the current financial year (2022-23)
NIL**	Not Applicable	Nil	Nil

** **Unit does not go under any manufacturing process. Hence there is no any raw material consumption.**

Environment Statement for 2022-23 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.

(PCB ID: 10602)

PART – C

**Pollutants discharged to Environment/Unit of Output
(Parameters as specified in consent issued)**

Pollutants	Quantity of pollutants discharged (Mass/day)		Concentrations of pollutants in discharges		Percentage of variation from prescribed standards with reasons
	Parameters	Avg. Mass Kg/Day	Parameters	Avg.	
(a) Domestic Wastewater	pH	--	pH	7.27	There is no variation from prescribed standards in terms of quality of wastewater discharge. 1. Domestic sewage is treated from Township & hospital into Sewage Treatment Plant of capacity-2.5 MLD. 2. Details of treated water discharged during April-2022 to March-2023 Attached as Annexure – 1 . 3. Quality of Treated water from STPs is being analyzed on regular basis through NABL / MoEF&CC accredited laboratory M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi. 4. Analysis reports of treated sewage are enclosed as Annexure – 2 . 5. Treated water is being reused in gardening and plantation activities within township, SEZ & hospital premises.
	Total Suspended Solids	0.015	Total Suspended Solids (mg/l)	21.58	
	BOD (5 Days @ 20 °C)	0.011	BOD (5 Days @ 20 oC) (mg/l)	16.58	
	Residual Chlorine	0.001	Residual Chlorine (mg/l)	0.77	
	Fecal Coliform	0.041	Fecal Coliform MPN INDEX/100 mL	59.17	
(b) Air (DG Stack 500 KVA)					There is no variation from prescribed standards in terms of quality of Air emission. 1. DG sets are provided as a standby power source and used during main power failure only. 2. Analysis reports of stack are enclosed as Annexure – 2 . 3. The ambient air quality monitoring is being done regularly. Analysis reports of ambient air quality monitoring are enclosed as Annexure – 2 .
	Particulate Matter (PM)	0.0014	Particulate Matter (mg/Nm3)	17.34	
	Sulphur Dioxide (SO ₂)	0.0013	Sulphur Dioxide (PPM)	6.55	
	Nitrogen Oxide (NO _x)	0.0036	Nitrogen Oxide (NO _x) (PPM)	25.19	

Environment Statement for 2022-23 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.

(PCB ID: 10602)

PART – D

Hazardous Wastes

(As specified under Hazardous Wastes Management and Handling Rules 1989)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year (2021-22)	During the current financial year (2022-23)
(a) From Process	Nil	Nil
(b) From Pollution Control facilities	Nil	Nil

Note: Please refer Annexure – 3 -waste generated / disposed from entire Adani Ports & SEZ

PART – E

Solid Waste

Solid Waste	Total Quantity Generated (MT/Annum)	
	During the current financial year (2021-22)	During the current financial year (2022-23)
a) From Process (Ash)	Nil	Nil
b) From Pollution Control facilities	Details is Attached as Refer Annexure – 3	Details is Attached as Refer Annexure – 3
(C-1)Quantity recycled or reutilized within the unit		
(C-2) Sold		
(C-3) Disposed		

Note: Please refer Annexure – 3 -waste generated / disposed from entire Adani Ports & SEZ Limited

PART - F

Please specify the characterization (in terms of Composition and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

- “Zero Waste company” initiative by APSEZ i.e. No waste is being sent to landfill or incineration facility @ Adani Ports & SEZ, rather being managed through 5 R principal of waste Management.
- APSEZ has eminent material recovery facility (MRF), having appropriate facility to proper segregate & recover the materials as per set process. Mixed Waste is being segregated via specialized mix waste segregation machine in two forms –Bio and Non bio without manual segregation, where risk to health hazards is minimized. Further waste is segregated into 16 streams at MRF, which is sent to different end users following the 5 R principle. To manage all operation of MRF, APSEZ developed local vendor through his past learnings and employed local women staff mainly to segregate waste.
- Wet Waste is being managed through Organic Waste Composting Facility and Biogas generation.
- Installed 02 no’s biogas plant at Central Kitchen location. This plant is sufficient to manage the food Waste generated from APSEZ area. (700 Kg + 200 kg per day)
- Dry waste and e-waste collection drive is being organized every month within townships to collect municipal solid waste as well as e-waste from households.

Environment Statement for 2022-23 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.

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- Plastic Free APSEZ Drive-which demonstrate commitment towards elimination of single use plastic.
- Plastic free APSEZ Drive:
 - APSEZ pasted stickers spreading awareness among their zone as plastic are prohibited now.
 - Awareness sessions organized among department and contract workers.
 - Made shop keepers and canteen owners to stop providing plastic carry bags to carry the material.
 - Confirms to stop usage of plastic cups to serve tea and water pouches within the premises of APSEZ.
 - Regular supervision by Team Members at Port Canteens and Shops townships for verification of prohibition of plastic.
 - Defined 3 Levels to achieve plastic free APSEZ.
- APSEZ has awarded with Zero Waste to Landfill Management System (ZWTL MS 2020) from TÜV Rheinland India Pvt. Ltd (attached as **Annexure – 4**).
- Sludge generated from STP is being utilized as manure for horticulture purpose.
- SEZ industries are managing their waste as per own standard procedure and following regulatory norms.

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

- Domestic sewage generated from township & Hospital is treated in to 2.5 MLD capacity STP having latest MBR technology.
- Wastewater generated from the hospital is being pretreated with hypochlorite solution and further sent to the further treatment to 2.5 MLD capacity STP at Samundra Township.
- Treated sewage is being utilized by horticulture department for plantation and gardening of AMSIPL project and Mundra SEZ greenbelt development to conserve the fresh water consumption.

Energy Savings (APSEZ)

- Installed 8.8 MW roof top solar generating plant at various locations in SEZ in Mundra which is generated nearly 9.43 million units in FY 2022-23 and utilized the renewable source of energy for captive use this reduced the emission of CO2 by nearly 7735 tCo2e.
- APSEZ has reduced total energy consumption of 129760 KWH/ Year units which reduce the emission of CO2 by nearly 103.93 tCo2e by various initiatives i.e. replacement of LED lights, high energy rating of AC, installation of new solar system etc.

Water Conservation:

- There are 8740 nos. of water reducer have been installed in Residence Area and various offices.
- Waterless urinal have been placed in various offices.
- 100% Treated Water utilization for gardening & horticulture purpose

Environment Statement for 2022-23 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.

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PART – H

Additional measures /investment/ proposal for environmental protection including abatement of pollution, prevention of pollution.

- Treated water from STP is used for gardening and horticulture activity within APSEZ premises to conserve the fresh water consumption.
- Unit has formed dedicated Horticulture department & developing green belt within port premises.
- In AMSIPL more than 58.26 ha. area is developed as greenbelt with samplings of more than 75.60 thousand.
- In entire APSEZ more than 457.99 ha. area is developed as greenbelt with samplings of more than 9.06 Lacs.
- The following safeguard measures are taken for abatement of dust and noise emissions.
 - ✓ Regular sprinkling on road and other open area
 - ✓ Regular cleaning of roads
 - ✓ Development of greenbelt along the periphery of the storage yards/back up area
 - ✓ D.G. Sets having acoustic enclosures.

PART – I

Any other particulars for improving the quality of environment:

- Monitoring of environmental parameters such as Air, Noise, and wastewater quality being done regular basis through MoEF&CC & NABL recognized laboratory (M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi).
- APSEZ Budget for environmental management measures (including horticulture) for the FY 2022-23 was to the tune of INR **1448.06** lakh out of which INR **1366.28** lakh was spent. Environment protection expenditure during the year 2022-23 is enclosed as **Annexure – 5**.
- APSEZ is driving paperless office and plastic free drive to eliminate the use of papers and plastic materials to the extent possible within ports, SEZ and residential townships.



Date: 11-09-2023

(Signature of a person carrying out an industry, operation or process)

Designation: **Head-Environment Cell**

Environment Statement for 2022-23 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.

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ANNEXURE – 1

Water Consumption and Wastewater Treated Details for AMSIPL (April'22 to March'23)

Month	Wastewater	Fresh Water Consumption	
	Treated Sewage, KL	Industrial, KL	Domestic (Included Horticulture/Gardening)-KL
Apr-22	24427	Nil	33493
May-22	21818	Nil	32263
Jun-22	24357	Nil	36587
Jul-22	15913	Nil	33365
Aug-22	19982	Nil	31114
Sep-22	17240	Nil	33215
Oct-22	21068	Nil	33221
Nov-22	18015	Nil	32203
Dec-22	21936	Nil	34871
Jan-23	20091	Nil	27499
Feb-23	23817	Nil	29147
Mar-23	24428	Nil	41393
Total	253092	Nil	398371
Per Month	21091.00	Nil	33197.57
Per Day	693.40	Nil	1091.43

Environment Statement for 2022-23 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.

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ANNEXURE – 3
Waste Disposal Details, APSEZ, Mundra

Sr. No.	Waste Description	Disposal Method	Unit	Quantity 2021-22	Quantity 2022-23
Non-Hazardous:					
1.	Dry Waste (Recyclable waste-Metal, Wood, paper, plastic etc.)	Recycle (send to reg. recycler)/ Reuse (Used by Org.)	MT	2450.97	3779.70
2.	RDF (Non-Recyclable)	Co-processing at cement plant	MT	376.01	544.17
3.	STP Sludge	Reprocess (Manure)	MT	17	11.8
4.	Organic Waste (included food waste)	Reprocess & Recovery Manure/biogas	MT	851.51	897.82
5.	E-Waste	Recycle (send to reg. recycler)	MT	50	89.86
Hazardous:					
1.	Used Oil	Recycle (send to reg. recycler)	MT	370.58	131.99

ANNEXURE – 4



Certificate

Standard: Zero Waste to Landfill Management System
(ZWTL MS 2020)

Certificate Holder: Adani Ports and Special Economic Zone Limited
Mundra Port, Kutch - 370421,
Gujarat, India

Scope: Providing Port Facilities for Import and Export of
Bulk, Break Bulk, Liquid and Containerized Cargo,
its Storage and RORO Operation for Export of
Vehicles

Validity: This certificate is valid from 01-06-2021 until 31-05-2024
Subject to satisfactory annual surveillance audits.

Certificate No. TUV/ZWLMS/2021/Adani Ports/0501



New Delhi, 01-06-2021

TÜV Rheinland India Pvt. Ltd.
Office 610, 6th Floor, iThum
Tower, A-40, Sector-62,
Noida- 201301, India

Environment Statement for 2022-23 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.

(PCB ID: 10602)

ANNEXURE – 5

Cost of Environmental Protection Measures of APSEZ, Mundra

F.Y. 2022-23

Sr. No.	Activity	Cost incurred (INR in Lacs)	Budgeted Cost (INR in Lacs)
		2022 – 23	2022 – 23
1.	Environmental Study / Audit and Consultancy	7.32	11.05
2.	Legal & Statutory Expenses	12.32	12
3.	Environmental Monitoring Services	15.32	33
4.	Hazardous / Non-Hazardous Waste Management & Disposal	104.035	127.72
5.	Environment Days Celebration and Advertisement / Business development	2.53	8.00
6.	Treatment and Disposal of Bio-Medical Waste	2.29	2.04
7.	Mangrove Plantation, Monitoring & Conservation	35.0	35.0
8.	Other Horticulture Expenses	956	979
9.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	141.33	164.46
10.	Expenditure of Environment Dept. (Apart from above head)	90.136	75.79
	Total	1366.281	1448.06



“Half Yearly Environmental Monitoring Reports “

For,

ANNEXURE - 2



M/S. ADANI MUNDRA SEZ INFRASTRUCTURE PVT. LTD. (AMSIPL)

PLOT NO/Survey No. 141 (Part), Village – Mundra, Tal.: Mundra, Dist. – Kutch.

Monitoring Period: April – 2022 to September - 2022

Submitted By



UniStar Environment & Research Labs Pvt. Ltd.

White House, Near GIDC Office, Char Rasta, Vapi, Gujarat, India – 396195



RESULTS OF STP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	SAMUNDRA TOWNSHIP STP OUTLET						GPCB Permissible Limit	TEST METHOD
			Apr-22		May-22		Jun-22			
			12-04-2022	25-04-2022	10-05-2022	30-05-2022	15-06-2022	28-06-2022		
1	pH @ 25 ° C	--	7.48	7.52	7.36	7.29	7.28	7.34	6.5 to 9	APHA 23 rd Ed.,2017,4500- H ⁺ B
2	Total Suspended Solids	mg/L	26	22	24	20	22	16	100	APHA 23 rd Ed.,2017,2540 -D
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	14	16	18	16	15	17	30	APHA 23 rd Ed,2017,5210- B 5-6
4	Residual chlorine	mg/L	0.7	0.8	0.96	0.77	0.87	0.69	0.5 Min.	APHA 23 rd Ed.,2017,4500- Cl-B
5	Fecal Coliform	MPN Index/100ml	90	80	80	50	60	50	1000	IS 1622: 1981

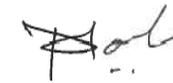
Continue...

RESULTS OF STP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	SAMUNDRA TOWNSHIP STP OUTLET						GPCB Permissible Limit	TEST METHOD
			Jul-22		Aug-22		Sep-22			
			15-07-2022	21-07-2022	06-08-2022	26-08-2022	15-09-2022	27-09-2022		
1	pH @ 25 ° C	--	7	7.24	7.18	7.25	7.38	7.41	6.5 to 9	APHA 23 rd Ed.,2017,4500- H ⁺ B
2	Total Suspended Solids	mg/L	20	28	24	22	24	26	100	APHA 23 rd Ed.,2017,2540 -D
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	15	18	18	19	20	19	30	APHA 23 rd Ed,2017,5210- B 5-6
4	Residual chlorine	mg/L	0.72	0.65	0.72	0.68	0.72	0.75	0.5 Min.	APHA 23 rd Ed.,2017,4500- Cl-B
5	Fecal Coliform	MPN Index/100ml	50	80	34	60	50	40	1000	IS 1622: 1981



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Results of Ambient Air Quality Monitoring

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
1.	07-04-2022	72.6	21.45	9.12	16.78	NOT DETECTED
2.	08-04-2022	82.5	27.33	12.34	20.23	--
3.	11-04-2022	79.45	23.69	12.23	18.31	--
4.	12-04-2022	67.23	18.45	13.56	19.54	--
5.	18-04-2022	75.67	21.36	12.16	16.75	--
6.	21-04-2022	80.32	29.34	15.23	21.44	--
7.	25-04-2022	84.34	33.28	12.34	18.34	--
8.	28-04-2022	78.91	30.25	11.25	17.44	--
9.	02-05-2022	81.34	28.94	11.56	17.89	--
10.	05-05-2022	75.44	21.17	14.51	21.45	--
11.	09-05-2022	83.23	26.54	10.35	14.56	--
12.	12-05-2022	71.78	20.65	12.89	18.23	--
13.	16-05-2022	64.55	17.89	14.53	20.45	--
14.	18-05-2022	70.2	22.56	11.56	16.53	--
15.	23-05-2022	78.25	25	10.21	21.55	--
16.	26-05-2022	83.45	31.57	9.45	20.67	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
17.	30-05-2022	75.16	23.54	10.56	15.83	--
18.	02-06-2022	76.25	21.45	12.34	19.45	--
19.	06-06-2022	80.2	26.78	11.68	15.68	--
20.	09-06-2022	68.15	20.44	9.33	15.68	--
21.	13-06-2022	67.42	22.51	12.37	19.25	--
22.	15-06-2022	80.21	27.89	10.28	17.84	--
23.	20-06-2022	72.46	22.34	14.38	21.45	--
24.	23-06-2022	80.55	28.95	11.25	18.79	--
25.	27-06-2022	62.39	21.54	8.56	15.44	--
26.	29-06-2022	72.46	25.68	13.89	19.32	--
27.	04-07-2022	45.23	13.46	8.12	11.25	NOT DETECTED
28.	07-07-2022	21.34	8.43	4.56	7.23	--
29.	11-07-2022	15.23	6.15	4.23	7.89	--
30.	14-07-2022	22.36	9.45	7.12	9.17	--
31.	18-07-2022	30.12	11.34	5.23	7.12	--
32.	21-07-2022	40.23	15.34	8.2	10.23	--
33.	25-07-2022	44.56	14.21	5.45	8.25	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
34.	28-07-2022	38.45	11.35	6.23	9.26	--
35.	01-08-2022	87.49	31.58	13.52	19.23	--
36.	04-08-2022	70.29	24.19	11.74	24.68	--
37.	08-08-2022	87.61	27.81	16.29	28.83	--
38.	11-08-2022	74.2	22.14	13.94	21.38	--
39.	15-08-2022	84.18	15.73	12.51	25.05	--
40.	18-08-2022	72.69	28.3	9.59	15.83	--
41.	22-08-2022	86.48	29.72	14.42	24.33	--
42.	25-08-2022	89.49	33.2	12.83	22.15	--
43.	29-08-2022	68.24	26.86	10.98	17.36	--
44.	01-09-2022	82.32	26.61	17.36	21.44	--
45.	05-09-2022	73.72	29.73	13.74	23.18	--
46.	08-09-2022	71.29	27.81	11.24	26.92	--
47.	12-09-2022	86.48	25.59	16.9	24.37	--
48.	15-09-2022	81.21	21.26	13.18	19.63	--
49.	19-09-2022	77.63	24.69	12.47	21.58	--
50.	22-09-2022	89.02	32.46	15.58	31.06	--

Continue...

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-11)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
51.	26-09-2022	67.48	29.08	16.84	26.21	--
52.	29-09-2022	71.36	34.17	14.15	19.11	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0
Test Method		IS - 5182, Part- 23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Ambient Air Quality Monitoring

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
1.	07-04-2022	79.43	26.75	10.44	18.23	NOT DETECTED
2.	08-04-2022	85.66	32.87	13.45	21.63	--
3.	11-04-2022	75.6	30.44	14.1	22.87	--
4.	12-04-2022	69.34	24.61	16.21	22.62	--
5.	18-04-2022	83.56	25.89	14.56	19.85	--
6.	21-04-2022	88.95	33.45	17.23	23.6	--
7.	25-04-2022	87.5	37.25	14.88	21.56	--
8.	28-04-2022	85.23	33.21	13.45	18.56	--
9.	02-05-2022	68.45	22.56	9.74	14.56	--
10.	05-05-2022	73.45	25.67	12.45	17.21	--
11.	09-05-2022	82.45	28.93	11.56	15.37	--
12.	12-05-2022	70.25	25.46	14.21	19.25	--
13.	16-05-2022	67.84	21.35	17.23	21.31	--
14.	18-05-2022	79.14	27.85	12.65	17.43	--
15.	23-05-2022	86.24	32.45	13.82	14.56	--
16.	26-05-2022	77.25	26.75	15.23	19.37	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
17.	30-05-2022	71.45	23.18	12.15	15.78	--
18.	02-06-2022	56.78	19.45	11.34	17.68	--
19.	06-06-2022	82.34	23.56	10.23	15.32	--
20.	09-06-2022	74.56	27.82	15.41	22.34	--
21.	13-06-2022	54.34	18.76	15.23	20.18	--
22.	15-06-2022	67.23	25.46	11.78	16.75	--
23.	20-06-2022	76.21	30.15	10.17	17.85	--
24.	23-06-2022	83.53	32.15	16.25	21.35	--
25.	27-06-2022	72.34	28.17	14.38	20.18	--
26.	29-06-2022	61.14	20.21	12.19	17.25	--
27.	04-07-2022	45.67	14.23	7.56	9.12	NOT DETECTED
28.	07-07-2022	22.34	7.24	5.12	7.21	--
29.	11-07-2022	18.94	5.67	4.1	7.15	--
30.	14-07-2022	20.14	7.15	6.23	8.24	--
31.	18-07-2022	25.67	9.21	5.34	8.15	--
32.	21-07-2022	33.45	10.44	7.23	9.12	--
33.	25-07-2022	40.12	13.21	6.12	7.34	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
34.	28-07-2022	32.17	10.22	5.23	8.16	--
35.	01-08-2022	62.5	24.84	11.31	17.73	--
36.	04-08-2022	68.57	27.83	15.72	21.3	--
37.	08-08-2022	79.27	31.52	13.78	17.71	--
38.	11-08-2022	66.67	22.04	16.21	23.38	--
39.	15-08-2022	69.91	24.17	19.69	26.9	--
40.	18-08-2022	83.42	32.56	16.53	19.32	--
41.	22-08-2022	81.52	34.28	12.47	17.52	--
42.	25-08-2022	74.85	29.47	9.97	14.79	--
43.	29-08-2022	71.29	26.52	11.29	19.48	--
44.	01-09-2022	67.36	18.32	16.57	22.31	--
45.	05-09-2022	64.72	22.73	12.36	18.46	--
46.	08-09-2022	71.84	29.01	18.47	26.84	--
47.	12-09-2022	74.42	24.62	16.34	20.26	--
48.	15-09-2022	61.27	32.57	14.63	17.56	--
49.	19-09-2022	86.08	21.43	20.13	27.86	--
50.	22-09-2022	59.97	28.74	23.87	29.04	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
51.	26-09-2022	69.56	33.94	14.27	17.25	--
52.	29-09-2022	77.13	27.56	17.16	23.14	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0
Test Method		IS - 5182, Part- 23	UERL/AIR/ SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		SAMUDRA TOWNSHIP – STP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		06-04-2022	18-05-2022	11-06-2022	19-07-2022	12-08-2022	07-09-2022
1	06:00 to 07:00	61.3	62.6	62.5	62.6	61.8	60.5
2	07:00 to 08:00	63.5	65.6	61.5	68.3	62.8	63.8
3	08:00 to 09:00	66.7	68.6	60.5	64.2	68.6	65.5
4	09:00 to 10:00	65.5	65.5	62.3	69.8	65.5	66.3
5	10:00 to 11:00	68.2	68.3	60.5	62.2	68.3	63.4
6	11:00 to 12:00	64.5	68.9	63.4	68.8	68.9	68.2
7	12:00 to 13:00	63.9	65.4	64.2	67.2	65.4	66.5
8	13:00 to 14:00	66.7	66.3	65.5	62.5	66.3	63.0
9	14:00 to 15:00	62.6	68.5	64.9	67.1	68.5	64.5
10	15:00 to 16:00	65.5	64.5	63.6	61.5	64.5	63.7
11	16:00 to 17:00	69.1	68.3	65.3	66.8	68.3	64.4
12	17:00 to 18:00	69.2	65.6	62.8	65.7	65.6	65.1
13	18:00 to 19:00	64.5	67.2	60.4	68.1	67.2	62.9
14	19:00 to 20:00	62.3	63.5	59.4	65.2	63.5	64.2
15	20:00 to 21:00	60.6	60.5	58.5	64.1	60.5	62.8
16	21:00 to 22:00	60.5	62.8	59.3	61.2	61.4	62.9
Day Time		<75 dB (A)					

Continue...

Location Name		SAMUDRA TOWNSHIP – STP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		06-04-2022	18-05-2022	11-06-2022	19-07-2022	12-08-2022	07-09-2022
1	22:00 to 23:00	59.34	61.6	57.5	63.2	62.7	61.3
2	23:00 to 24:00	56.43	60.5	55.6	57.8	60.5	59.4
3	24:00 to 01:00	54.32	59.5	57.2	58.9	59.5	59.9
4	01:00 to 02:00	57.89	60.5	55.8	62.1	60.5	61.6
5	02:00 to 03:00	51.23	58.1	54.2	55.4	58.1	57.4
6	03:00 to 04:00	53.87	60.5	54.9	59.4	60.5	60.1
7	04:00 to 05:00	56.34	62.3	55.3	60.2	62.3	63.5
8	05:00 to 06:00	57.23	61.5	56.5	64.2	60.2	63.0
Night Time		<70 dB (A)					

Test Method	IS: 9989 : 1981
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Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		08-04-2022	23-05-2022	09-06-2022	06-07-2022	20-08-2022	20-09-2022
1	06:00 to 07:00	61.5	61.2	62.3	60.5	64.4	62.5
2	07:00 to 08:00	66.7	65.2	64.2	58.4	65.2	61.5
3	08:00 to 09:00	60.5	62.9	63.1	62.5	64.8	60.5
4	09:00 to 10:00	63.9	65.1	64.5	69.4	64.3	62.3
5	10:00 to 11:00	64.5	63.9	63.3	65.4	63.8	61.1
6	11:00 to 12:00	65.2	59.8	65.5	66.3	59.2	64.8
7	12:00 to 13:00	66.1	61.2	63.2	66.7	61.9	64.2
8	13:00 to 14:00	60.6	61.0	61.9	64.9	60.2	65.5
9	14:00 to 15:00	61.8	61.4	62.5	66.8	61.9	63.8
10	15:00 to 16:00	62.5	61.3	64.2	63.6	62.4	63.6
11	16:00 to 17:00	63.2	61.0	61.5	64.8	64.7	64.9
12	17:00 to 18:00	65.4	65.2	64.6	62.2	66.5	62.8
13	18:00 to 19:00	62.1	59.8	60.2	68.4	60.2	61.2
14	19:00 to 20:00	60.2	60.1	61.5	67.1	65.3	59.4
15	20:00 to 21:00	58.9	56.8	60.5	60.2	58.3	58.5
16	21:00 to 22:00	59.2	59.7	59.8	63.4	62.7	59.9
Day Time		<75 dB (A)					

Continue...

Location Name		SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time					
		08-04-2022	23-05-2022	09-06-2022	06-07-2022	20-08-2022	20-09-2022
1	22:00 to 23:00	56.24	57.1	58.2	59.6	58.2	59.4
2	23:00 to 24:00	58.25	56.9	57.5	60.3	58.8	61.8
3	24:00 to 01:00	57.25	54.1	55.2	60.5	53.8	57.7
4	01:00 to 02:00	55.21	59.9	56.5	61.2	58.6	54.9
5	02:00 to 03:00	54.59	52.5	54.2	57.8	53.6	53.2
6	03:00 to 04:00	58.69	53.0	54.5	53.5	54.7	54.5
7	04:00 to 05:00	59.23	56.4	57.2	58.2	57.2	56.8
8	05:00 to 06:00	57.38	59.9	57.5	59.3	60.5	59.1
Night Time		<70 dB (A)					

Test Method	IS: 9989 : 1981
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Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Stack Monitoring

Sr. No.	Parameter	Unit	May - 2022	GPCB LIMIT	Method of Test
			Adani Hospital DG Set		
			12-05-2022		
1.	Particulate Matter	mg/Nm ³	18.7	150	IS 11255 (Part - 1)
2.	Sulphur Dioxide	ppm	5.25	100	IS 11255 (Part - 2)
3.	Oxide of Nitrogen	ppm	29.14	50	IS 11255 (Part - 7)
4.	Carbon Monoxide	mg/Nm ³	3.5	--	UERL/AIR/SOP/18
5.	Non Methyl Hydro Carbon	ppm	Not Detected	--	UERL/AIR/SOP/27



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Minimum Detection Limit

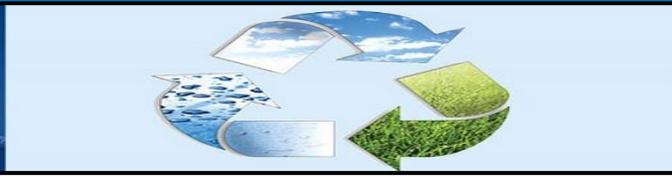
Ambient Air Quality Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Particulate Matter (PM10)	µg/m ³	5 µg/m ³
2	Particulate Matter (PM10)	µg/m ³	5 µg/m ³
3	Sulphur Dioxide (SO ₂)	µg/m ³	4 µg/m ³
4	Nitrogen Dioxide (NO ₂)	µg/m ³	5 µg/m ³
5	Carbon Monoxide (CO)	mg/m ³	0.01 mg/m ³
6	Ammonia (NH ₃)	µg/m ³	5 µg/m ³
7	Ozone (O ₃)	µg/m ³	5 µg/m ³
8	Lead (Pb)	µg/m ³	0.5 µg/m ³
9	Nickle (Ni)	ng/m ³	1 ng/m ³
10	Arsenic (As)	ng/m ³	1 ng/m ³
11	Benzene	µg/m ³	1µg/m ³
12	Benzo(o)Pyrene	ng/m ³	0.1 ng/m ³
14	Hydro Carbon	µg/m ³	1 µg/m ³

Stack Emission Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Suspended particulate matter	mg/Nm ³	2 mg/Nm ³
2	Sulphur Dioxide SO _X	mg/Nm ³	4 mg/Nm ³
3	Oxides of Nitrogen NO _X	mg/Nm ³	5 mg/Nm ³

STP Water			
Sr. No.	Test Parameter	Unit	MDL
1	pH @ 25 ° C	--	2
2	Total Suspended Solids	mg/L	4
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	1
4	Residual chlorine	mg/L	0.1
5	Fecal Coliform	MPN Index/100ml	<2



“Half Yearly Environmental Monitoring Reports “

For,



M/S. ADANI MUNDRA SEZ INFRASTRUCTURE PVT. LTD. (AMSIPL)

PLOT NO/Survey No. 141 (Part), Village – Mundra, Tal.: Mundra, Dist. – Kutch.

Monitoring Period: October – 2022 to March - 2023

Submitted By



UniStar Environment & Research Labs Pvt. Ltd.

White House, Near GIDC Office, Char Rasta, Vapi, Gujarat, India – 396195



RESULTS OF STP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	SAMUNDRA TOWNSHIP STP OUTLET						GPCB Permissible Limit	TEST METHOD
			Oct-22		Nov-22		Dec-22			
			10-10-2022	21-10-2022	7-11-2022	17-11-2022	12-12-2022	29-12-2022		
1	pH @ 25 ° C	--	7.22	7.25	7.42	7.36	6.98	6.84	6.5 to 9	APHA 23 rd Ed.,2017,4500- H ⁺ B
2	Total Suspended Solids	mg/L	22	26	6	8	12	14	100	APHA 23 rd Ed.,2017,2540 -D
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	15	18	12	14	12	15	30	APHA 23 rd Ed,2017,5210- B 5-6
4	Residual chlorine	mg/L	0.82	0.69	0.84	0.64	0.68	0.72	0.5 Min.	APHA 23 rd Ed.,2017,4500- Cl-B
5	Fecal Coliform	MPN Index/100ml	33	40	90	80	80	70	1000	IS 1622: 1981

Continue...

RESULTS OF STP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	SAMUNDRA TOWNSHIP STP OUTLET						GPCB Permissible Limit	TEST METHOD
			Jan-23		Feb-23		Mar-23			
			10-01-2023	30-01-2023	11-02-2023	27-02-2023	13-03-2023	27-03-2023		
1	pH @ 25 ° C	--	7.18	7.22	7.26	7.24	7.3	7.42	6.5 to 9	APHA 23 rd Ed.,2017,4500- H ⁺ B
2	Total Suspended Solids	mg/L	22	28	26	28	26	26	100	APHA 23 rd Ed.,2017,2540 -D
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	18	19	16	17	19	18	30	APHA 23 rd Ed,2017,5210- B 5-6
4	Residual chlorine	mg/L	0.76	0.84	0.88	0.84	0.88	0.92	0.5 Min.	APHA 23 rd Ed.,2017,4500- Cl-B
5	Fecal Coliform	MPN Index/100ml	80	70	40	50	23	40	1000	IS 1622: 1981



Mr. Nilesh Patel
Sr. Chemist




Mr. Nitin Tandel
Technical Manager

Results of Ambient Air Quality Monitoring

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
1.	03-10-2022	73.90	21.40	13.45	17.68	NOT DETECTED
2.	06-10-2022	66.5	17.60	15.65	22.34	--
3.	10-10-2022	89.53	25.68	14.34	20.13	--
4.	13-10-2022	76.28	21.23	12.56	17.43	--
5.	17-10-2022	81.40	28.76	11.21	15.56	--
6.	20-10-2022	65.92	19.55	10.15	16.78	--
7.	27-10-2022	77.67	22.34	12.65	18.94	--
8.	28-10-2022	75.51	26.78	10.45	15.67	--
9.	31-10-2022	63.75	18.94	12.45	18.93	--
10.	03-11-2022	54.23	23.45	11.25	16.78	--
11.	07-11-2022	79.14	28.23	12.68	17.23	--
12.	10-11-2022	62.34	20.17	14.56	20.17	--
13.	14-11-2022	69.22	25.34	17.98	23.45	--
14.	17-11-2022	59.63	19.55	12.34	16.78	--
15.	21-11-2022	72.34	33.67	11.25	15.21	--
16.	24-11-2022	77.45	29.16	16.35	19.25	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
17.	28-11-2022	68.35	26.12	13.35	15.84	--
18.	01-12-2022	67.29	19.57	18.39	26.63	--
19.	05-12-2022	63.61	23.73	16.42	23.58	--
20.	08-12-2022	84.57	16.35	11.74	16.37	--
21.	12-12-2022	60.54	29.51	15.63	19.88	--
22.	15-12-2022	74.58	27.93	19.24	27.63	--
23.	19-12-2022	59.50	26.48	16.73	24.12	--
24.	22-12-2022	68.13	21.26	20.58	29.65	--
25.	26-12-2022	71.69	32.37	17.41	22.28	--
26.	29-12-2022	69.24	27.04	21.82	28.37	--
27.	02-01-2023	88.37	24.53	22.14	31.83	NOT DETECTED
28.	05-01-2023	71.62	27.66	19.97	21.35	--
29.	09-01-2023	89.41	23.49	17.27	20.69	--
30.	12-01-2023	75.39	21.84	23.69	29.74	--
31.	16-01-2023	61.33	33.59	24.17	34.28	--
32.	19-01-2023	82.17	29.62	20.89	28.31	--
33.	23-01-2023	52.74	27.57	26.36	36.02	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
34.	26-01-2023	63.29	22.78	22.41	28.76	--
35.	30-01-2023	73.64	31.26	26.48	33.14	--
36.	02-02-2023	79.63	17.35	20.68	27.55	--
37.	06-02-2023	86.38	23.69	26.52	36.17	--
38.	09-02-2023	72.83	29.13	24.77	31.46	--
39.	13-02-2023	81.62	27.34	18.89	25.60	--
40.	16-02-2023	75.26	24.81	29.63	39.15	--
41.	20-02-2023	89.37	19.68	24.35	33.89	--
42.	23-02-2023	69.74	32.28	21.26	29.63	--
43.	27-02-2023	73.59	26.47	28.92	34.29	--
44.	02-03-2023	81.62	21.85	23.27	32.71	--
45.	06-03-2023	75.27	19.79	21.86	27.47	--
46.	09-03-2023	87.3	25.62	28.27	35.21	--
47.	13-03-2023	73.16	31.16	25.84	33.59	--
48.	16-03-2023	78.48	27.32	21.49	27.38	--
49.	20-03-2023	75.26	24.91	29.64	36.17	--
50.	23-03-2023	88.51	28.85	28.75	34.29	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
51.	27-03-2023	74.27	35.74	31.25	38.63	--
52.	30-03-2023	79.58	26.36	24.78	30.25	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0
Test Method		IS - 5182, Part- 23	UERL/AIR/ SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Ambient Air Quality Monitoring

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
1.	07-04-2022	79.43	26.75	10.44	18.23	NOT DETECTED
2.	08-04-2022	85.66	32.87	13.45	21.63	--
3.	11-04-2022	75.60	30.44	14.10	22.87	--
4.	12-04-2022	69.34	24.61	16.21	22.62	--
5.	18-04-2022	83.56	25.89	14.56	19.85	--
6.	21-04-2022	88.95	33.45	17.23	23.60	--
7.	25-04-2022	87.50	37.25	14.88	21.56	--
8.	28-04-2022	85.23	33.21	13.45	18.56	--
9.	02-05-2022	68.45	22.56	9.74	14.56	--
10.	05-05-2022	73.45	25.67	12.45	17.21	--
11.	09-05-2022	82.45	28.93	11.56	15.37	--
12.	12-05-2022	70.25	25.46	14.21	19.25	--
13.	16-05-2022	67.84	21.35	17.23	21.31	--
14.	18-05-2022	79.14	27.85	12.65	17.43	--
15.	23-05-2022	86.24	32.45	13.82	14.56	--
16.	26-05-2022	77.25	26.75	15.23	19.37	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
17.	28-11-2022	65.38	23.45	17.45	26.16	--
18.	01-12-2022	79.27	16.38	17.63	28.46	--
19.	05-12-2022	66.43	19.46	18.54	25.38	--
20.	08-12-2022	78.56	17.32	13.49	31.73	--
21.	12-12-2022	62.36	27.49	24.55	29.68	--
22.	15-12-2022	69.58	21.72	27.59	34.43	--
23.	19-12-2022	83.16	18.53	24.41	28.18	--
24.	22-12-2022	65.39	22.86	19.63	27.42	--
25.	26-12-2022	74.06	27.62	26.57	32.44	--
26.	29-12-2022	64.38	23.49	21.24	28.93	--
27.	02-01-2023	79.24	26.46	26.23	31.48	NOT DETECTED
28.	05-01-2023	63.86	24.84	23.69	29.75	--
29.	09-01-2023	69.83	14.19	19.73	26.42	--
30.	12-01-2023	88.63	21.49	29.80	37.91	--
31.	16-01-2023	79.76	29.64	21.82	28.68	--
32.	19-01-2023	81.49	26.39	17.13	24.33	--
33.	23-01-2023	75.13	31.38	14.48	22.89	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
34.	26-01-2023	87.36	26.14	22.47	27.36	--
35.	30-01-2023	72.14	32.48	26.36	31.24	--
36.	02-02-2023	87.39	26.46	26.23	31.48	--
37.	06-02-2023	79.62	24.84	23.69	29.75	--
38.	09-02-2023	83.74	14.19	19.73	26.42	--
39.	13-02-2023	76.53	21.49	29.80	37.91	--
40.	16-02-2023	82.19	29.64	21.82	28.68	--
41.	20-02-2023	87.66	26.39	17.13	24.33	--
42.	23-02-2023	89.38	31.38	14.48	22.89	--
43.	27-02-2023	73.19	26.14	22.47	27.36	--
44.	02-03-2023	73.52	37.61	29.17	36.74	--
45.	06-03-2023	86.18	29.49	27.64	31.59	--
46.	09-03-2023	83.73	34.18	33.62	39.47	--
47.	13-03-2023	81.35	27.93	25.79	31.57	--
48.	16-03-2023	79.73	25.13	28.19	33.81	--
49.	20-03-2023	75.38	28.19	23.85	28.47	--
50.	23-03-2023	88.63	38.88	31.47	38.55	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
51.	27-03-2023	88.41	29.16	28.52	35.27	--
52.	30-03-2023	82.85	32.18	31.94	38.63	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0
Test Method		IS - 5182, Part- 23	UERL/AIR/ SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		SAMUDRA TOWNSHIP – STP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		12-10-2022	15-11-2022	10-12-2022	11-01-2023	14-02-2023	11-03-2023
1	06:00 to 07:00	60.9	63.9	62.3	61.8	62.8	62.1
2	07:00 to 08:00	61.4	61.2	64.8	65.2	62.3	63.4
3	08:00 to 09:00	66.7	67.8	66.4	65.7	68.9	63.8
4	09:00 to 10:00	63.3	66.3	67.8	67.8	67.1	61.3
5	10:00 to 11:00	68.2	63.2	64.9	64.9	64.8	67.8
6	11:00 to 12:00	65.4	67.3	68.4	67.1	65.5	63.2
7	12:00 to 13:00	63.9	64.2	62.5	63.6	63.8	68.4
8	13:00 to 14:00	67.1	62.9	63.6	67.4	63.2	62.1
9	14:00 to 15:00	62.6	65.4	65.4	65.4	67.9	66.8
10	15:00 to 16:00	65.5	69.1	63.7	66.6	65.1	64.3
11	16:00 to 17:00	62.7	65.5	67.5	67.5	68.4	67.5
12	17:00 to 18:00	69.2	68.9	66.1	62.5	68.9	65.8
13	18:00 to 19:00	62	61.3	64.1	64.1	61.3	64.3
14	19:00 to 20:00	62.3	64.2	64.2	63	63.5	64.9
15	20:00 to 21:00	60.6	67.5	63.2	63.2	67.5	65.4
16	21:00 to 22:00	62.3	61.3	62.4	61.4	62.8	60.1
Day Time		<75 dB (A)					

Continue...

Location Name		SAMUDRA TOWNSHIP – STP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		12-10-2022	15-11-2022	10-12-2022	11-01-2023	14-02-2023	11-03-2023
1	22:00 to 23:00	58.7	59.4	57.4	57.9	60.7	59.3
2	23:00 to 24:00	54.3	56.7	58.3	58.3	57.3	59.1
3	24:00 to 01:00	55.6	56.8	55.9	57.3	56.8	61.6
4	01:00 to 02:00	57.3	58.9	60.3	61.2	58.9	56.4
5	02:00 to 03:00	52.6	54.2	56.8	58.9	54.9	57.4
6	03:00 to 04:00	56.8	57.6	58.4	58.4	58.2	56.9
7	04:00 to 05:00	55.1	58.4	59.1	60.3	58.4	58.4
8	05:00 to 06:00	59.3	61.5	58.2	59.3	59.7	57.5
Night Time		<70 dB (A)					

Test Method	IS: 9989 : 1981
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(Manager - Operations)

Results of Noise Level Monitoring

Location Name		SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		18-10-2022	23-11-2022	17-12-2022	20-01-2023	21-02-2023	18-03-2023
1	06:00 to 07:00	58.4	60.2	60.6	58.3	60.9	60.3
2	07:00 to 08:00	64.3	64.7	59.6	60.2	63.1	62.7
3	08:00 to 09:00	60.5	65.4	62.3	62.3	65.4	66.4
4	09:00 to 10:00	68.4	64.5	68.4	65.7	63.7	68.4
5	10:00 to 11:00	64.5	65.4	63.9	65.9	65.4	64.3
6	11:00 to 12:00	63.3	65.5	64.2	62.7	66.8	62.8
7	12:00 to 13:00	66.1	67.9	63.2	64.8	67.9	66.5
8	13:00 to 14:00	61.4	61.9	63.7	67.5	62.4	64.2
9	14:00 to 15:00	61.8	65.8	62.5	63.4	67.5	68.5
10	15:00 to 16:00	63.2	64.2	65.8	69.1	64.2	65.3
11	16:00 to 17:00	63.2	63.8	61.5	63.6	62.4	64.3
12	17:00 to 18:00	66.6	61.6	63.4	63.4	61.6	63.6
13	18:00 to 19:00	62.1	60.2	60.2	60.2	65.9	62.7
14	19:00 to 20:00	60.2	61.5	62.2	64.8	61.5	64.8
15	20:00 to 21:00	59.7	63	60.5	60.5	64.7	61.3
16	21:00 to 22:00	59.8	62.7	60.8	64.8	61.1	59.6
Day Time		<75 dB (A)					

Continue...

Location Name		SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time					
		18-10-2022	23-11-2022	17-12-2022	20-01-2023	21-02-2023	18-03-2023
1	22:00 to 23:00	57.6	56.9	59.6	60.3	58.5	56.0
2	23:00 to 24:00	56.4	57.5	59.9	60.7	56.8	58.4
3	24:00 to 01:00	54.3	57.2	62.6	62.6	59.3	56.8
4	01:00 to 02:00	56.9	57.1	61.8	62.8	59.0	57.5
5	02:00 to 03:00	55.4	56.6	60.3	57.3	57.8	61.2
6	03:00 to 04:00	58.2	54.5	58.5	58.5	55.2	58.5
7	04:00 to 05:00	60.3	59.4	59.4	59.4	58.4	58.5
8	05:00 to 06:00	57.6	56.3	60.8	59.8	56.3	56.9
Night Time		<70 dB (A)					

Test Method	IS: 9989 : 1981
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Jaivik S. Tandel
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Results of Stack Monitoring

Sr. No.	Parameter	Unit	Feb - 2023	GPCB LIMIT	Method of Test
			Adani Hospital DG Set		
			01-02-2023		
1.	Particulate Matter	mg/Nm ³	15.26	150	IS 11255 (Part - 1)
2.	Sulphur Dioxide	ppm	6.18	100	IS 11255 (Part - 2)
3.	Oxide of Nitrogen	ppm	23.42	50	IS 11255 (Part - 7)
4.	Carbon Monoxide	mg/Nm ³	3.1	--	UERL/AIR/SOP/18
5.	Non Methyl Hydro Carbon	ppm	Not Detected	--	UERL/AIR/SOP/27



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Minimum Detection Limit

Ambient Air Quality Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Particulate Matter (PM10)	µg/m ³	5 µg/m ³
2	Particulate Matter (PM10)	µg/m ³	5 µg/m ³
3	Sulphur Dioxide (SO ₂)	µg/m ³	4 µg/m ³
4	Nitrogen Dioxide (NO ₂)	µg/m ³	5 µg/m ³
5	Carbon Monoxide (CO)	mg/m ³	0.01 mg/m ³
6	Ammonia (NH ₃)	µg/m ³	5 µg/m ³
7	Ozone (O ₃)	µg/m ³	5 µg/m ³
8	Lead (Pb)	µg/m ³	0.5 µg/m ³
9	Nickle (Ni)	ng/m ³	1 ng/m ³
10	Arsenic (As)	ng/m ³	1 ng/m ³
11	Benzene	µg/m ³	1 µg/m ³
12	Benzo(o)Pyrene	ng/m ³	0.1 ng/m ³
14	Hydro Carbon	µg/m ³	1 µg/m ³

Stack Emission Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Suspended particulate matter	mg/Nm ³	2 mg/Nm ³
2	Sulphur Dioxide SO _X	mg/Nm ³	4 mg/Nm ³
3	Oxides of Nitrogen NO _X	mg/Nm ³	5 mg/Nm ³

STP Water			
Sr. No.	Test Parameter	Unit	MDL
1	pH @ 25 ° C	--	2
2	Total Suspended Solids	mg/L	4
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	1
4	Residual chlorine	mg/L	0.1
5	Fecal Coliform	MPN Index/100ml	<2