

APSEZL/EnvCell/2024-25/057

Date: 02.09.2024

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, 2024 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 2024.

Thank you,

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

Blump

Authorized Signatory

Encl: As above.

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

5/9/24
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 2024

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 : 11/09/2023

PART – B

Water and Raw Material Consumption

(i) Water Consumption

Water Consumption Cu. Mtr./Day	Average
Process	Nil
Cooling	Nil
Domestic (included Horticulture/Gardening)	1076.38 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 (2022-23)	During the current financial year (2023-24)
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 (2022-23)	During the current financial year (2023-24)
NIL**	Not Applicable	Nil	Nil

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

Environment Statement for 2023-24 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	7.34	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-2023 to March-2024 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	17.74	Total Suspended Solids (mg/l)	19.17	
	BOD (5 Days @ 20 °C)	14.19	BOD (5 Days @ 20 oC) (mg/l)	15.34	
	Residual Chlorine	0.73	Residual Chlorine (mg/l)	0.79	
	Fecal Coliform	83.29	Fecal Coliform MPN INDEX/100 mL	90.00	
(b) Air (DG Stack 500 KVA)		Avg. Mass Kg/Day	Parameters	Avg	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)	Negligible	Particulate Matter (mg/Nm ³)	18.09	
	Sulphur Dioxide (SO ₂)	Negligible	Sulphur Dioxide (PPM)	7.06	
	Nitrogen Oxide (NO _x)	0.0014	Nitrogen Oxide (NO _x) (PPM)	26.04	

Environment Statement for 2023-24 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 (2022-23)	During the current financial year (2023-24)
(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 (2022-23)	During the current financial year (2023-24)
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 though 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.
- Plastic Free APSEZ Drive-which demonstrate commitment towards elimination of single use plastic.

Environment Statement for 2023-24 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.

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- Plastic free APSEZ Drive:
 - APSEZ pasted stickers spreading awareness among their zone as plastic are prohibited now.
 - Replacement of conventional plastic garbage collection bag with biodegradable / compostable bags & also Rafia bags (more than 120 µm size) for other waste collection.
 - Conducted Training Awareness Programme with Adani Foundation for Student on "Single Use Plastic Ban" at Zapara & Navinal School dated 4th & 5th May, 2023.
 - Celebrated "International Plastic Bag Free Day" on 3rd July 2023 by conducting the Training Awareness to students at Bhujpur Village, and with Cotton Bag distribution in our residential Colonies.
 - Plastic Waste Collection Drive was conducted on 20th March 2024 at our Old Railway Building, aimed at combating plastic pollution, and fostering environmental sustainability. The drive was continued for full working day and collected approx. 450 kgs of plastic waste from our old Railway Building area.
 - Awareness sessions organized among department and contract workers.
 - Made shop keepers and canteen owners to stop providing plastic carry bags to carry the material.
 - 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.
- 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 into 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)

- 217 nos. of Electrical truck Vehicle for internal movement of material (E-ITV's).
- 10 nos. of Electrical Car for movement of employees and all are working.
- Replacement of diesel loco by Electrified railway line of approx. 91 km from West port to Adipur Railway station.
- Installed 8.8 MW roof top solar generating plant at various locations in SEZ in Mundra which is generated nearly 9.06 million units in FY 2023-24 and utilized the renewable source of energy for captive use this reduced the emission of CO₂ by nearly 7427 tCo₂e..

Water Conservation:

- Water reducers have been installed in Residence Area and various offices.
- Waterless urinals have been placed in various offices.
- 100% Treated Water utilization for gardening & horticulture purpose.

Environment Statement for 2023-24 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 freshwater 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 2023-24 is to the tune of INR **1536.48** lakh. Out of which, Approx. INR **1366.281** lakh is spent during the year FY 2023-24. Detailed breakup of the expenditures for the FY 2023-24 is attached as **Annexure - 4**.
- 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: 02-09-2024

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

Designation: **Head-Environment Cell**

Environment Statement for 2023-24 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.

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ANNEXURE - 1

Water Consumption and Wastewater Treated Details for AMSIPL (April'23 to March'24)

Month	Wastewater	Fresh Water Consumption	
	Treated Sewage, KL	Industrial, KL	Domestic (Included Horticulture/Gardening)-KL
Apr-23	19012	Nil	34167
May-23	23918	Nil	33052
Jun-23	26626	Nil	34292
Jul-23	30033	Nil	33004
Aug-23	27129	Nil	32724
Sep-23	33500	Nil	33341
Oct-23	31145	Nil	34330
Nov-23	28010	Nil	29865
Dec-23	25445	Nil	31484
Jan-24	21722	Nil	33085
Feb-24	29358	Nil	29265
Mar-24	41881	Nil	35346
Total	337779	Nil	393955
Per Month	28148.25	Nil	32829.60
Per Day	922.89	Nil	1076.38

Environment Statement for 2023-24 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.**(PCB ID: 10602)****ANNEXURE - 3
Waste Disposal Details, APSEZ, Mundra**

Sr. No.	Waste Description	Disposal Method	Unit	Quantity 2022-23	Quantity 2023-24
Non-Hazardous:					
1.	Dry Waste (Recyclable waste- Metal, Wood, paper, plastic etc.)	Recycle (send to reg. recycler)/ Reuse (Used by Org.)	MT	3779.70	3312.775
2.	RDF (Non-Recyclable)	Co-processing at cement plant	MT	544.17	451.28
3.	STP Sludge	Reprocess (Manure)	MT	11.8	3.0
4.	Organic Waste (included food waste)	Reprocess & Recovery Manure/biogas	MT	897.82	959.35
5.	E-Waste	Recycle (send to reg. recycler)	MT	89.86	44.83
Hazardous:					
1.	Used Oil	Recycle (send to reg. recycler)	MT	131.99	204.86

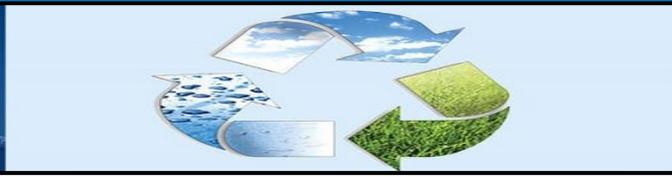
Environment Statement for 2023-24 for M/s Adani Mundra SEZ Infrastructure Pvt. Ltd.

(PCB ID: 10602)

ANNEXURE - 4

**Cost of Environmental Protection Measures of APSEZ, Mundra
F.Y. 2023-24**

Sr. No.	Activity	Cost incurred (INR in Lacs)	Budgeted Cost (INR in Lacs)
		2023 - 24	2023 - 24
1.	Environmental Study / Audit and Consultancy	22.67	27
2.	Legal & Statutory Expenses	8.60	13
3.	Environmental Monitoring Services	13.37	19.20
4.	Hazardous / Non-Hazardous Waste Management & Disposal	130.11	148.68
5.	Environment Days Celebration and Advertisement / Business development	3.42	11.50
6.	Treatment and Disposal of Bio-Medical Waste	2.28	2.28
7.	Mangrove Plantation, Monitoring & Conservation	15	15.0
8.	Other Horticulture Expenses	904	904
9.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	186.94	212.9
10.	Expenditure of Environment Dept. (Apart from above head)	80.39	182.92
Total		1366.78	1536.48



“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: April – 2023 to September - 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
			Apr-23		May-23		Jun-23			
			10-04-2023	20-04-2023	12-05-2023	29-05-2023	12-06-2023	29-06-2023		
1	pH @ 25 ° C	--	7.14	7.21	7.34	7.22	7.14	7.21	6.5 to 9	APHA 23 rd Ed.,2017,4500-H ⁺ B
2	Total Suspended Solids	mg/L	18	8	12	14	20	22	100	APHA 23 rd Ed.,2017,2540-D
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	9	6	16	17	14	15	30	APHA 23 rd Ed.,2017,5210-B 5-6
4	Residual chlorine	mg/L	0.71	0.67	0.84	0.88	0.68	0.72	0.5 Min.	APHA 23 rd Ed.,2017,4500-CI-B
5	Fecal Coliform	MPN Index/100ml	70	110	90	140	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
			Jul-23		Aug-23		Sep-23			
			13-07-2023	26-07-2023	11-08-2023	23-08-2023	12-09-2023	21-09-2023		
1	pH @ 25 ° C	--	7.36	7.35	7.46	7.42	7.45	7.34	6.5 to 9	APHA 23 rd Ed.,2017,4500-H ⁺ B
2	Total Suspended Solids	mg/L	28	26	24	22	18	22	100	APHA 23 rd Ed.,2017,2540-D
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	16	18	19	14	15	16	30	APHA 23 rd Ed.,2017,5210-B 5-6
4	Residual chlorine	mg/L	0.84	0.76	0.68	0.82	0.84	0.92	0.5 Min.	APHA 23 rd Ed.,2017,4500-Cl-B
5	Fecal Coliform	MPN Index/100ml	110	80	90	60	110	80	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	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
1.	03-04-2023	88.37	17.56	13.72	21.81	NOT DETECTED	8.24	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED
2.	06-04-2023	73.14	19.68	8.47	16.63	--	--	--	--	--	--	--	--
3.	10-04-2023	87.64	23.79	10.83	22.12	--	--	--	--	--	--	--	--
4.	13-04-2023	76.98	24.13	9.98	16.46	--	--	--	--	--	--	--	--
5.	17-04-2023	65.26	18.77	13.45	21.84	--	--	--	--	--	--	--	--
6.	20-04-2023	71.32	21.58	11.24	19.52	--	--	--	--	--	--	--	--
7.	24-04-2023	89.73	26.81	14.93	23.79	--	--	--	--	--	--	--	--
8.	27-04-2023	86.25	19.58	13.45	20.13	--	--	--	--	--	--	--	--
9.	01-05-2023	89.42	26.18	13.64	19.38	--	--	--	--	--	--	--	--
10.	04-05-2023	85.27	27.12	16.37	24.61	--	--	--	--	--	--	--	--
11.	08-05-2023	73.84	22.4	11.59	18.42	--	--	--	--	--	--	--	--
12.	11-05-2023	79.16	19.67	13.14	20.61	--	--	--	--	--	--	--	--
13.	15-05-2023	81.36	24.16	17.63	25.58	--	--	--	--	--	--	--	--
14.	18-05-2023	72.19	21.76	12.98	19.13	--	--	--	--	--	--	--	--
15.	22-05-2023	86.53	24.78	14.24	22.65	--	--	--	--	--	--	--	--
16.	25-05-2023	75.94	22.35	11.73	17.46	--	--	--	--	--	--	--	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
17.	29-05-2023	87.27	26.16	15.42	23.69	--	--	--	--	--	--	--	--
18.	01-06-2023	86.17	28.41	16.24	24.63	--	--	--	--	--	--	--	--
19.	05-06-2023	83.78	25.85	13.42	21.75	--	--	--	--	--	--	--	--
20.	08-06-2023	81.58	21.62	12.78	18.46	--	--	--	--	--	--	--	--
21.	12-06-2023	78.31	17.27	10.89	15.37	--	--	--	--	--	--	--	--
22.	15-06-2023	51.23	17.85	8.25	12.23	--	--	--	--	--	--	--	--
23.	19-06-2023	40.23	15.23	7.21	10.15	--	--	--	--	--	--	--	--
24.	22-06-2023	48.22	16.25	6.25	7.23	--	--	--	--	--	--	--	--
25.	26-06-2023	45.87	14.22	5.23	8.15	--	--	--	--	--	--	--	--
26.	29-06-2023	40.56	12.31	5.15	8.12	--	--	--	--	--	--	--	--
27.	03-07-2023	42.69	13.27	7.47	10.63	NOT DETECTED	<5.0	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED
28.	06-07-2023	36.81	12.75	5.91	7.47	--	--	--	--	--	--	--	--
29.	10-07-2023	31.53	11.14	5.24	8.31	--	--	--	--	--	--	--	--
30.	13-07-2023	39.62	13.99	6.16	10.11	--	--	--	--	--	--	--	--
31.	17-07-2023	45.17	16.28	8.64	12.87	--	--	--	--	--	--	--	--
32.	20-07-2023	40.32	14.47	7.95	11.77	--	--	--	--	--	--	--	--
33.	24-07-2023	49.71	17.83	12.61	15.42	--	--	--	--	--	--	--	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
34.	27-07-2023	44.05	16.38	10.25	14.72	--	--	--	--	--	--	--	--
35.	31-07-2023	51.76	18.13	14.32	16.57	--	--	--	--	--	--	--	--
36.	03-08-2023	76.63	20.12	8.18	11.32	--	--	--	--	--	--	--	--
37.	07-08-2023	81.47	23.54	9.38	13.02	--	--	--	--	--	--	--	--
38.	10-08-2023	73.29	21.67	9.12	12.64	--	--	--	--	--	--	--	--
39.	14-08-2023	89.63	27.95	11.43	13.61	--	--	--	--	--	--	--	--
40.	17-08-2023	82.15	24.63	9.79	11.64	--	--	--	--	--	--	--	--
41.	21-08-2023	87.25	26.18	8.52	10.46	--	--	--	--	--	--	--	--
42.	24-08-2023	84.16	23.9	10.53	13.18	--	--	--	--	--	--	--	--
43.	28-08-2023	79.93	21.24	9.11	11.65	--	--	--	--	--	--	--	--
44.	31-08-2023	87.63	25.82	11.49	13.78	--	--	--	--	--	--	--	--
45.	04-09-2023	82.46	21.57	10.35	13.62	--	--	--	--	--	--	--	--
46.	07-09-2023	85.61	23.24	11.43	14.74	--	--	--	--	--	--	--	--
47.	11-09-2023	87.19	26.43	13.72	15.93	--	--	--	--	--	--	--	--
48.	14-09-2023	83.61	20.38	10.22	14.58	--	--	--	--	--	--	--	--
49.	18-09-2023	71.38	15.79	7.31	10.76	--	--	--	--	--	--	--	--
50.	21-09-2023	77.43	18.28	9.57	12.28	--	--	--	--	--	--	--	--

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MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (31.03.2023 to 22.09.2024)

QCI-NABET Accredited EIA & GW Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001 : 2015 Certified Company

ISO 45001 : 2018 Certified Company

Name of Location		SAMUDRA TOWNSHIP – STP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
51.	25-09-2023	73.65	16.4	8.26	10.77	--	--	--	--	--	--	--	--
52.	28-09-2023	80.11	19.53	9.75	13.12	--	--	--	--	--	--	--	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	400	100	1	20	6	5	1
Test Method		IS - 5182, Part- 23	UERL/AIR /SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	UERL/AIR /SOP/05	IS - 5182, Part - 9	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 11	IS - 5182, Part - 12



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												
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	
1.	03-04-2023	88.37	21.83	15.91	21.71	NOT DETECTED	<5.0	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	
2.	06-04-2023	68.57	19.99	11.83	16.78	--	--	--	--	--	--	--	--	
3.	10-04-2023	89.83	26.78	17.15	24.62	--	--	--	--	--	--	--	--	
4.	13-04-2023	78.42	23.86	13.57	17.35	--	--	--	--	--	--	--	--	
5.	17-04-2023	82.18	34.24	18.36	25.89	--	--	--	--	--	--	--	--	
6.	20-04-2023	72.47	28.58	14.1	20.71	--	--	--	--	--	--	--	--	
7.	24-04-2023	83.66	29.82	17.36	23.59	--	--	--	--	--	--	--	--	
8.	27-04-2023	79.85	22.83	10.92	16.26	--	--	--	--	--	--	--	--	
9.	01-05-2023	74.37	24.68	13.35	17.49	--	--	--	--	--	--	--	--	
10.	04-05-2023	83.28	21.47	15.23	22.64	--	--	--	--	--	--	--	--	
11.	08-05-2023	87.73	28.61	12.18	16.39	--	--	--	--	--	--	--	--	
12.	11-05-2023	76.29	25.46	10.93	14.78	--	--	--	--	--	--	--	--	
13.	15-05-2023	84.81	31.38	14.51	19.78	--	--	--	--	--	--	--	--	
14.	18-05-2023	73.35	24.79	11.28	16.37	--	--	--	--	--	--	--	--	
15.	22-05-2023	86.24	32.73	16.49	24.58	--	--	--	--	--	--	--	--	
16.	25-05-2023	68.46	27.19	14.77	21.26	--	--	--	--	--	--	--	--	

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
17.	29-05-2023	79.57	30.61	17.38	23.79	--	--	--	--	--	--	--	--
18.	01-06-2023	82.48	27.65	16.24	20.12	--	--	--	--	--	--	--	--
19.	05-06-2023	86.73	30.12	17.41	22.73	--	--	--	--	--	--	--	--
20.	08-06-2023	79.52	26.49	14.38	16.26	--	--	--	--	--	--	--	--
21.	12-06-2023	73.19	23.37	11.98	14.23	--	--	--	--	--	--	--	--
22.	15-06-2023	53.26	21.31	9.25	13.05	--	--	--	--	--	--	--	--
23.	19-06-2023	45.21	15.95	8.44	11.23	--	--	--	--	--	--	--	--
24.	22-06-2023	50.34	14.12	7.36	8.25	--	--	--	--	--	--	--	--
25.	26-06-2023	47.82	13.21	7.12	9.15	--	--	--	--	--	--	--	--
26.	29-06-2023	42.35	13.55	6.18	9.23	--	--	--	--	--	--	--	--
27.	03-07-2023	50.61	18.37	11.14	14.62	NOT DETECTED	<5.0	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED
28.	06-07-2023	44.78	15.56	9.85	11.42	--	--	--	--	--	--	--	--
29.	10-07-2023	41.35	14.84	7.79	9.63	--	--	--	--	--	--	--	--
30.	13-07-2023	35.93	12.07	7.12	9.42	--	--	--	--	--	--	--	--
31.	17-07-2023	39.26	13.51	8.63	10.17	--	--	--	--	--	--	--	--
32.	20-07-2023	46.74	16.28	10.31	13.01	--	--	--	--	--	--	--	--
33.	24-07-2023	51.12	18.53	11.26	14.43	--	--	--	--	--	--	--	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
34.	27-07-2023	42.49	15.3	8.64	10.17	--	--	--	--	--	--	--	--
35.	31-07-2023	53.67	17.92	10.97	12.55	--	--	--	--	--	--	--	--
36.	03-08-2023	61.48	21.88	10.27	13.75	--	--	--	--	--	--	--	--
37.	07-08-2023	74.82	24.58	12.54	15.38	--	--	--	--	--	--	--	--
38.	10-08-2023	68.48	22.65	10.19	12.96	--	--	--	--	--	--	--	--
39.	14-08-2023	72.91	23.65	12.52	15.12	--	--	--	--	--	--	--	--
40.	17-08-2023	77.26	25.75	15.83	18.65	--	--	--	--	--	--	--	--
41.	21-08-2023	81.43	28.11	17.42	21.53	--	--	--	--	--	--	--	--
42.	24-08-2023	85.51	29.72	16.84	20.76	--	--	--	--	--	--	--	--
43.	28-08-2023	76.46	25.57	13.26	17.61	--	--	--	--	--	--	--	--
44.	31-08-2023	79.12	27.28	14.53	16.15	--	--	--	--	--	--	--	--
45.	04-09-2023	74.37	23.15	12.43	14.78	--	--	--	--	--	--	--	--
46.	07-09-2023	77.51	24.74	13.58	16.46	--	--	--	--	--	--	--	--
47.	11-09-2023	81.13	27.41	15.32	18.23	--	--	--	--	--	--	--	--
48.	14-09-2023	79.54	25.35	13.18	15.36	--	--	--	--	--	--	--	--
49.	18-09-2023	61.38	18.57	9.36	11.93	--	--	--	--	--	--	--	--
50.	21-09-2023	68.54	21.83	11.34	14.72	--	--	--	--	--	--	--	--

Continue...

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (31.03.2023 to 22.09.2024)

QCI-NABET Accredited EIA & GW Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001 : 2015 Certified Company

ISO 45001 : 2018 Certified Company

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
51.	25-09-2023	63.78	19.61	10.83	13.27	--	--	--	--	--	--	--	--
52.	28-09-2023	71.37	22.26	12.42	14.91	--	--	--	--	--	--	--	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	400	100	1	20	6	5	1
Test Method		IS - 5182, Part- 23	UERL/AIR /SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	UERL/AIR /SOP/05	IS - 5182, Part - 9	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 11	IS - 5182, Part - 12



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					
		22-04-2023	13-05-2023	07-06-2023	15-07-2023	11-08-2023	13-09-2023
1	06:00 to 07:00	63.9	61.2	60.3	60.9	63.2	62.7
2	07:00 to 08:00	67.8	62.8	62.5	61.4	64.6	65.4
3	08:00 to 09:00	68.9	68.9	68.5	66.7	67.1	63.3
4	09:00 to 10:00	67.1	65.4	65.5	63.3	65.8	67.2
5	10:00 to 11:00	68.5	69.1	64.2	68.2	67.4	64.7
6	11:00 to 12:00	69.1	62.4	64.5	62.9	65.1	66.3
7	12:00 to 13:00	67.5	69.7	65.2	65.4	63.4	67.4
8	13:00 to 14:00	66.9	62.2	66.1	69.1	65.7	65.8
9	14:00 to 15:00	61.8	68.2	60.6	65.5	66.8	68.6
10	15:00 to 16:00	63.8	63.1	61.8	68.9	65.9	65.3
11	16:00 to 17:00	66.7	65.7	62.5	64.3	65.2	64.8
12	17:00 to 18:00	65.3	66.9	61.5	61.3	63.6	66.4
13	18:00 to 19:00	66.7	67.2	64.6	65.8	64.6	62.5
14	19:00 to 20:00	62.9	65.5	60.2	65.9	67.1	63.1
15	20:00 to 21:00	64.2	68.2	63.5	61.5	64.2	64.3
16	21:00 to 22:00	60.1	64.7	60.5	64.7	61.7	60.7
Day Time		<75 dB (A)					

Continue...

Location Name		SAMUDRA TOWNSHIP – STP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		22-04-2023	13-05-2023	07-06-2023	15-07-2023	11-08-2023	13-09-2023
1	22:00 to 23:00	61.3	58.5	60.8	57.2	59.4	59.5
2	23:00 to 24:00	59.7	58.3	56.7	55.8	56.9	61.4
3	24:00 to 01:00	57.4	57.5	53.9	56.3	59.4	58.7
4	01:00 to 02:00	56.9	55.2	54.2	57.3	62.8	60.4
5	02:00 to 03:00	59.4	56.5	53.6	53.2	61.8	57.4
6	03:00 to 04:00	60.3	54.2	54.7	57.1	59.5	60.1
7	04:00 to 05:00	58.4	55.3	57.2	55.8	60.4	61.4
8	05:00 to 06:00	60.6	56.5	57.3	58.3	57.8	62.6
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					
		18-04-2023	20-05-2023	20-06-2023	19-07-2023	18-08-2023	20-09-2023
1	06:00 to 07:00	62.8	66.7	60.5	60.3	58.9	63.5
2	07:00 to 08:00	64.2	68.8	62.8	62.7	61.3	61.2
3	08:00 to 09:00	63.9	67.3	66.1	66.4	65.8	64.5
4	09:00 to 10:00	64.5	65.7	65.5	67.8	64.9	65.8
5	10:00 to 11:00	62.9	66.2	62.8	63.2	65.8	67.4
6	11:00 to 12:00	63	66.2	66.9	68.4	67.4	65.7
7	12:00 to 13:00	60.4	65.4	65.6	62.1	62.8	63.8
8	13:00 to 14:00	67.1	65.8	65.2	65.7	63.6	67.2
9	14:00 to 15:00	64.5	66.2	64.2	68.2	67.1	64.1
10	15:00 to 16:00	69.6	69.5	67.2	63.8	62.9	62.7
11	16:00 to 17:00	65.2	66.7	66.5	61.9	64.8	65.3
12	17:00 to 18:00	63.2	65.4	68.5	64.8	67.9	63.8
13	18:00 to 19:00	61.5	68.2	63.2	64.2	62.8	59.8
14	19:00 to 20:00	66.7	65.1	60.2	65.5	63.9	60.4
15	20:00 to 21:00	60.5	64.7	59.5	62.8	60.1	62.1
16	21:00 to 22:00	63.9	62.6	61.3	60.5	57.9	58.8
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					
		18-04-2023	20-05-2023	20-06-2023	19-07-2023	18-08-2023	20-09-2023
1	22:00 to 23:00	60.2	60.8	57.9	58.5	56.7	56.8
2	23:00 to 24:00	64.2	56.7	58.3	54.4	59.4	60.4
3	24:00 to 01:00	58.2	53.9	57.3	59.3	62.6	57.3
4	01:00 to 02:00	57.3	54.2	61.2	58.3	60.4	61.3
5	02:00 to 03:00	63.2	53.1	58.9	57.8	57.4	57.9
6	03:00 to 04:00	64.3	55.5	58.8	58.5	61.3	59.4
7	04:00 to 05:00	55.1	58.8	56.3	56.1	56.8	60.1
8	05:00 to 06:00	58.4	57.9	55.9	56.9	58.1	58.9
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	Sep - 2023	GPCB LIMIT	Method of Test
			Adani Hospital DG Set		
			01-09-2023		
1.	Particulate Matter	mg/Nm ³	20.11	150	IS 11255 (Part - 1)
2.	Sulphur Dioxide	ppm	7.68	100	IS 11255 (Part - 2)
3.	Oxide of Nitrogen	ppm	27.91	50	IS 11255 (Part - 7)
4.	Carbon Monoxide	mg/Nm ³	3.8	--	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 (PM2.5)	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
13	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.

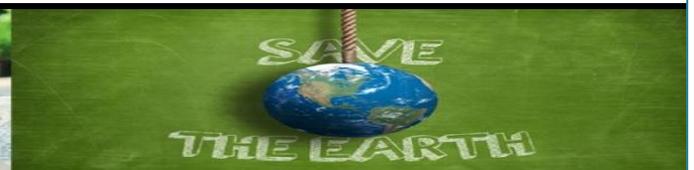
Monitoring Period: October – 2023 to March - 2024

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-23		Nov-23		Dec-23			
			09-10-2023	23-10-2023	07-11-2023	22-11-2023	07-12-2023	26-12-2023		
1	pH @ 25 ° C	--	7.29	7.44	7.21	7.44	7.38	7.44	6.5 to 9	APHA 23 rd Ed.,2017,4500-H ⁺ B
2	Total Suspended Solids	mg/L	18	20	20	18	18	20	100	APHA 23 rd Ed.,2017,2540-D
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	16	15.5	16.3	16	16	16	30	APHA 23 rd Ed,2017,5210-B 5-6
4	Residual chlorine	mg/L	0.82	0.78	0.74	0.82	0.84	0.83	0.5 Min.	APHA 23 rd Ed.,2017,4500-CI-B
5	Fecal Coliform	MPN Index/100ml	90	90	90	90	90	90	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-24		Feb-24		Mar-24			
			12-01-2024	27-01-2024	10-02-2024	26-02-2024	07-03-2024	18-03-2024		
1	pH @ 25 ° C	--	7.34	7.33	7.42	7.35	7.38	7.44	6.5 to 9	APHA 23 rd Ed.,2017,4500-H ⁺ B
2	Total Suspended Solids	mg/L	18	18	20	18	20	18	100	APHA 23 rd Ed.,2017,2540-D
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	16.5	15.9	16.4	16.6	15.5	16.4	30	APHA 23 rd Ed.,2017,5210-B 5-6
4	Residual chlorine	mg/L	0.82	0.83	0.82	0.84	0.75	0.78	0.5 Min.	APHA 23 rd Ed.,2017,4500-Cl-B
5	Fecal Coliform	MPN Index/100ml	90	90	110	90	70	80	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	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
1.	02-10-2023	83.72	23.63	12.20	15.84	NOT DETECTED	NOT DETECTED	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED
2.	05-10-2023	85.89	25.42	13.54	17.42	--	--	--	--	--	--	--	--
3.	09-10-2023	79.25	26.58	14.66	17.73	--	--	--	--	--	--	--	--
4.	12-10-2023	82.64	24.83	14.36	18.21	--	--	--	--	--	--	--	--
5.	16-10-2023	85.38	22.45	12.80	17.36	--	--	--	--	--	--	--	--
6.	19-10-2023	78.61	26.5	14.40	17.18	--	--	--	--	--	--	--	--
7.	23-10-2023	80.24	24.63	13.75	18.52	--	--	--	--	--	--	--	--
8.	26-10-2023	84.76	22.35	12.61	15.47	--	--	--	--	--	--	--	--
9.	30-10-2023	81.83	22.24	12.42	16.94	--	--	--	--	--	--	--	--
10.	02-11-2023	76.48	20.65	10.80	14.96	--	--	--	--	--	--	--	--
11.	06-11-2023	80.52	22.28	11.42	16.95	--	--	--	--	--	--	--	--
12.	09-11-2023	82.29	23.88	12.45	17.64	--	--	--	--	--	--	--	--
13.	13-11-2023	79.11	21.75	11.49	16.22	--	--	--	--	--	--	--	--
14.	16-11-2023	76.73	20.42	10.79	15.86	--	--	--	--	--	--	--	--
15.	20-11-2023	80.82	22.54	10.98	16.37	--	--	--	--	--	--	--	--
16.	23-11-2023	83.57	24.11	12.48	17.14	--	--	--	--	--	--	--	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
17.	27-11-2023	81.95	22.68	11.74	16.93	--	--	--	--	--	--	--	--
18.	30-11-2023	78.57	21.86	10.77	15.28	--	--	--	--	--	--	--	--
19.	04-12-2023	83.21	24.56	13.19	17.21	--	--	--	--	--	--	--	--
20.	07-12-2023	82.64	23.48	12.85	16.35	--	--	--	--	--	--	--	--
21.	11-12-2023	80.19	21.87	10.62	14.8	--	--	--	--	--	--	--	--
22.	14-12-2023	81.47	22.16	11.05	15.26	--	--	--	--	--	--	--	--
23.	18-12-2023	76.82	19.51	9.82	13.39	--	--	--	--	--	--	--	--
24.	21-12-2023	78.29	20.76	10.59	14.83	--	--	--	--	--	--	--	--
25.	25-12-2023	74.94	17.72	9.12	12.86	--	--	--	--	--	--	--	--
26.	28-12-2023	75.86	18.64	9.92	13.03	--	--	--	--	--	--	--	--
27.	01-01-2024	78.64	20.18	9.98	13.86	NOT DETECTED	<5.0	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED
28.	04-01-2024	81.29	21.64	10.36	14.87	--	--	--	--	--	--	--	--
29.	08-01-2024	84.56	23.58	11.00	15.21	--	--	--	--	--	--	--	--
30.	11-01-2024	80.17	20.88	10.18	13.59	--	--	--	--	--	--	--	--
31.	15-01-2024	82.94	22.39	11.12	14.88	--	--	--	--	--	--	--	--
32.	18-01-2024	84.67	23.56	11.89	15.10	--	--	--	--	--	--	--	--
33.	22-01-2024	80.84	24.16	12.06	16.13	--	--	--	--	--	--	--	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
34.	25-01-2024	82.53	22.71	11.57	15.47	--	--	--	--	--	--	--	--
35.	29-01-2024	79.37	20.19	10.53	14.91	--	--	--	--	--	--	--	--
36.	01-02-2024	82.16	22.52	11.35	13.84	--	--	--	--	--	--	--	--
37.	05-02-2024	79.48	20.61	10.13	12.43	--	--	--	--	--	--	--	--
38.	08-02-2024	75.82	19.12	9.94	11.86	--	--	--	--	--	--	--	--
39.	12-02-2024	84.91	23	11.65	13.95	--	--	--	--	--	--	--	--
40.	15-02-2024	78.36	19.84	9.85	12.21	--	--	--	--	--	--	--	--
41.	19-02-2024	81.49	20.94	11.2	13.57	--	--	--	--	--	--	--	--
42.	22-02-2024	83.62	22.75	11.72	13.88	--	--	--	--	--	--	--	--
43.	26-02-2024	76.91	19.11	9.82	12.13	--	--	--	--	--	--	--	--
44.	29-02-2024	80.53	20.56	10.49	13.35	--	--	--	--	--	--	--	--
45.	04-03-2024	75.39	18.12	9.74	15.86	--	--	--	--	--	--	--	--
46.	07-03-2024	81.62	20.35	11.42	17.75	--	--	--	--	--	--	--	--
47.	11-03-2024	78.46	18.84	10.68	16.49	--	--	--	--	--	--	--	--
48.	14-03-2024	80.85	19.62	9.47	18.45	--	--	--	--	--	--	--	--
49.	18-03-2024	84.38	20.91	10.52	17.87	--	--	--	--	--	--	--	--
50.	21-03-2024	76.59	18.28	10.89	15.40	--	--	--	--	--	--	--	--

Continue...

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Name of Location		SAMUDRA TOWNSHIP – STP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
51.	25-03-2024	72.64	17.85	9.53	16.11	--	--	--	--	--	--	--	--
52.	28-03-2024	76.29	18.74	11.38	18.29	--	--	--	--	--	--	--	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	400	100	1	20	6	5	1
Test Method		IS - 5182, Part- 23	UERL/AIR /SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	UERL/AIR /SOP/05	IS - 5182, Part - 9	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 11	IS - 5182, Part - 12



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											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
1.	02-10-2023	62.34	22.14	15.36	19.13	NOT DETECTED	<5.0	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED
2.	05-10-2023	66.58	23.68	16.53	20.25	--	--	--	--	--	--	--	--
3.	09-10-2023	68.41	26.00	14.95	18.65	--	--	--	--	--	--	--	--
4.	12-10-2023	65.13	24.81	15.98	18.73	--	--	--	--	--	--	--	--
5.	16-10-2023	67.84	26.12	16.29	20.96	--	--	--	--	--	--	--	--
6.	19-10-2023	64.18	25.18	15.47	20.81	--	--	--	--	--	--	--	--
7.	23-10-2023	66.72	23.76	16.38	20.41	--	--	--	--	--	--	--	--
8.	26-10-2023	68.43	21.5	13.92	17.98	--	--	--	--	--	--	--	--
9.	30-10-2023	65.97	21.74	14.17	18.83	--	--	--	--	--	--	--	--
10.	02-11-2023	63.82	21.40	13.79	17.56	--	--	--	--	--	--	--	--
11.	06-11-2023	65.49	23.54	14.87	18.53	--	--	--	--	--	--	--	--
12.	09-11-2023	67.32	24.86	15.26	20.54	--	--	--	--	--	--	--	--
13.	13-11-2023	64.97	24.65	14.27	18.92	--	--	--	--	--	--	--	--
14.	16-11-2023	66.19	25.32	15.80	20.68	--	--	--	--	--	--	--	--
15.	20-11-2023	63.90	24.51	13.74	19.51	--	--	--	--	--	--	--	--
16.	23-11-2023	62.68	22.91	14.36	18.27	--	--	--	--	--	--	--	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
17.	27-11-2023	57.55	21.16	13.31	17.43	--	--	--	--	--	--	--	--
18.	30-11-2023	61.36	22.69	14.17	19.11	--	--	--	--	--	--	--	--
19.	04-12-2023	60.52	22.17	14.21	18.52	--	--	--	--	--	--	--	--
20.	07-12-2023	63.84	23.56	14.86	19.02	--	--	--	--	--	--	--	--
21.	11-12-2023	65.97	25.1	16.11	20.43	--	--	--	--	--	--	--	--
22.	14-12-2023	63.40	24.31	15.42	19.45	--	--	--	--	--	--	--	--
23.	18-12-2023	62.61	23.97	14.58	18.12	--	--	--	--	--	--	--	--
24.	21-12-2023	64.12	24.85	15.76	19.87	--	--	--	--	--	--	--	--
25.	25-12-2023	65.73	25.16	16.11	20.19	--	--	--	--	--	--	--	--
26.	28-12-2023	67.86	26.54	16.83	21.36	--	--	--	--	--	--	--	--
27.	01-01-2024	67.89	26.32	16.57	20.21	NOT DETECTED	<5.0	8.41	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED
28.	04-01-2024	64.61	25.43	14.62	18.57	--	--	--	--	--	--	--	--
29.	08-01-2024	60.13	22.43	13.98	17.96	--	--	--	--	--	--	--	--
30.	11-01-2024	62.89	23.89	14.21	19.34	--	--	--	--	--	--	--	--
31.	15-01-2024	65.46	24.57	15.86	20.57	--	--	--	--	--	--	--	--
32.	18-01-2024	67.13	26.79	16.75	21.64	--	--	--	--	--	--	--	--
33.	22-01-2024	64.37	23.81	15.26	20.46	--	--	--	--	--	--	--	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
34.	25-01-2024	66.84	25.76	16.58	21.54	--	--	--	--	--	--	--	--
35.	29-01-2024	65.92	24.93	14.26	19.18	--	--	--	--	--	--	--	--
36.	01-02-2024	64.38	25.63	15.26	19.61	--	--	--	--	--	--	--	--
37.	05-02-2024	66.14	26.59	16.41	20.13	--	--	--	--	--	--	--	--
38.	08-02-2024	62.61	24.42	14.55	18.48	--	--	--	--	--	--	--	--
39.	12-02-2024	58.49	21.96	13.57	17.85	--	--	--	--	--	--	--	--
40.	15-02-2024	63.52	24.13	14.49	18.37	--	--	--	--	--	--	--	--
41.	19-02-2024	66.16	26.37	16.31	21.14	--	--	--	--	--	--	--	--
42.	22-02-2024	62.57	23.86	14.67	19.85	--	--	--	--	--	--	--	--
43.	26-02-2024	59.61	22.18	13.94	17.63	--	--	--	--	--	--	--	--
44.	29-02-2024	64.79	24.26	15.63	20.07	--	--	--	--	--	--	--	--
45.	04-03-2024	67.18	25.29	16.10	19.42	--	--	--	--	--	--	--	--
46.	07-03-2024	64.38	23.42	13.86	17.27	--	--	--	--	--	--	--	--
47.	11-03-2024	61.29	24.42	15.38	20.15	--	--	--	--	--	--	--	--
48.	14-03-2024	64.68	23.12	15.84	19.87	--	--	--	--	--	--	--	--
49.	18-03-2024	58.73	21.82	13.45	17.63	--	--	--	--	--	--	--	--
50.	21-03-2024	62.35	23.64	15.42	20.14	--	--	--	--	--	--	--	--

Continue...

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Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³	CO mg/m ³	NH3 µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
51.	25-03-2024	59.85	22.11	14.64	19.25	--	--	--	--	--	--	--	--
52.	28-03-2024	56.24	20.85	13.72	17.36	--	--	--	--	--	--	--	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	400	100	1	20	6	5	1
Test Method		IS - 5182, Part- 23	UERL/AIR /SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	UERL/AIR /SOP/05	IS - 5182, Part - 9	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 11	IS - 5182, Part - 12



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					
		14-10-2023	11-11-2023	12-12-2023	20-01-2024	14-02-2024	13-03-2024
1	06:00 to 07:00	61.7	61.3	63.1	64.2	62.9	62.9
2	07:00 to 08:00	63.9	63.4	65.7	65.6	65.8	64.3
3	08:00 to 09:00	65.4	66.7	64.5	64.5	65.7	65.7
4	09:00 to 10:00	68.1	63.3	66.1	66.1	67.8	66.2
5	10:00 to 11:00	65.7	68.2	68.2	68.4	65.3	65.3
6	11:00 to 12:00	69.4	65.4	64.7	64.7	63.9	63.8
7	12:00 to 13:00	66.3	63.9	63.9	63.9	65.7	64.7
8	13:00 to 14:00	62.9	67.1	66.5	65.7	65.9	66.7
9	14:00 to 15:00	65.4	64.7	65.9	65.7	64.3	64.3
10	15:00 to 16:00	69.1	65.5	63.7	63.8	62.6	64.1
11	16:00 to 17:00	65.5	62.7	65.1	65.1	64.8	64.8
12	17:00 to 18:00	67.1	69.2	68.7	68.5	67.1	67.4
13	18:00 to 19:00	63.5	64.3	65.2	65.3	64.1	63.9
14	19:00 to 20:00	62.8	62.3	64	65.2	66.3	65.6
15	20:00 to 21:00	65.2	60.6	62.6	63.2	62.8	63.1
16	21:00 to 22:00	63.6	61.5	60.7	61.4	62.4	61.9
Day Time		<75 dB (A)					

Continue...

Location Name		SAMUDRA TOWNSHIP – STP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		14-10-2023	11-11-2023	12-12-2023	20-01-2024	14-02-2024	13-03-2024
1	22:00 to 23:00	58.2	56.9	57.2	57.6	59.1	60.5
2	23:00 to 24:00	56.7	54.3	59.8	60.1	58.6	58.6
3	24:00 to 01:00	59.9	56.5	60.2	62.5	60.3	61.2
4	01:00 to 02:00	58.9	57.3	62.9	63.8	62.7	63.4
5	02:00 to 03:00	56.3	54.8	60.7	61.2	63.2	62.4
6	03:00 to 04:00	58.7	59.2	57.9	58.9	61.4	61.4
7	04:00 to 05:00	60.5	55.1	60.3	60.3	60.5	59.7
8	05:00 to 06:00	59.5	57.4	58.9	59.7	57.3	57.5
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					
		21-10-2023	18-11-2023	16-12-2023	23-01-2024	17-02-2024	16-03-2024
1	06:00 to 07:00	58.5	58.4	59.6	60.7	59.6	57.5
2	07:00 to 08:00	60.2	61.7	63.5	62.8	60.6	60.6
3	08:00 to 09:00	62.6	64.9	66.4	65.7	66.8	63.7
4	09:00 to 10:00	65.8	66.8	64.8	64.8	65.3	65.3
5	10:00 to 11:00	68.9	64.5	67.3	66.6	65.4	63.9
6	11:00 to 12:00	66.4	63.3	65.8	66.3	65.7	65.7
7	12:00 to 13:00	65.6	66.1	64.2	65.1	64.3	62.8
8	13:00 to 14:00	63.2	62.3	68.2	68.2	64.9	64.9
9	14:00 to 15:00	67.8	61.8	63.9	63.7	67.4	66.4
10	15:00 to 16:00	65.4	63.2	65.1	65.1	66.1	65.8
11	16:00 to 17:00	61.9	65.4	67.2	67.2	66.7	66.3
12	17:00 to 18:00	63.7	66.6	65.3	66.8	65.3	65.3
13	18:00 to 19:00	59.9	62.1	64.8	66.2	65.9	64.7
14	19:00 to 20:00	62.4	65.5	63.2	64.3	62.1	62.1
15	20:00 to 21:00	64.5	61.8	60.3	61.8	60.6	58.7
16	21:00 to 22:00	60.8	59.8	58.9	59.6	58.6	60.1
Day Time		<75 dB (A)					

Continue...

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Location Name		SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time					
		21-10-2023	18-11-2023	16-12-2023	23-01-2024	17-02-2024	16-03-2024
1	22:00 to 23:00	55.8	58.1	59.8	60.1	58.5	59.3
2	23:00 to 24:00	58.4	56.4	61.3	62.3	60.1	60.1
3	24:00 to 01:00	60.5	58.1	63.7	63.7	64.3	62.5
4	01:00 to 02:00	57.1	56.9	60.5	61.7	62.4	62.4
5	02:00 to 03:00	58.8	55.4	58.6	58.4	60.7	60.7
6	03:00 to 04:00	55.3	58.2	60.2	61.3	62.3	63.1
7	04:00 to 05:00	57.2	60.3	59.6	59.7	58.6	60.2
8	05:00 to 06:00	58.1	59.3	56.7	57.3	55.8	56.4
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	Nav - 2023	GPCB LIMIT	Method of Test
			Adani Hospital DG Set		
			09-11-2023		
1.	Particulate Matter	mg/Nm ³	18.54	150	IS 11255 (Part - 1)
2.	Sulphur Dioxide	ppm	7.21	100	IS 11255 (Part - 2)
3.	Oxide of Nitrogen	ppm	24.76	50	IS 11255 (Part - 7)
4.	Carbon Monoxide	mg/Nm ³	3.2	--	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 (PM2.5)	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
13	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