Half Yearly EC Compliance Report Submission -MPT 1995 Period of April 23 to Sept.23 (Part-1)

Bhagwat Swaroop Sharma <Bhagwat.Sharma1@adani.com>

Wed 11/29/2023 7:27 PM

To:eccompliance-guj@gov.in <eccompliance-guj@gov.in>;iro.gandhingr-mefcc@gov.in <iro.gandhingr-mefcc@gov.in>
Cc:ec-rdw.cpcb@gov.in <ec-rdw.cpcb@gov.in>;ro-gpcb-kute@gujarat.gov.in <ro-gpcb-kute@gujarat.gov.in>;ms-gpcb@gujarat.gov.in <ms-gpcb@gujarat.gov.in>;mefcc.ia3@gmail.com <mefcc.ia3@gmail.com>;monitoring-ec@nic.in <monitoring-ec@nic.in>;direnv@gujarat.gov.in <direnv@gujarat.gov.in>;Charanjit Singh <Charanjit.Singh@adani.com>;Sujalkumar Shah <sujal.shah@adani.com>

1 attachments (19 MB)

EC Compliance Report_MPT_Apr'23 to Sep'23_Final-part-1.pdf;

adani
Ports and Logistics

APSEZL/EnvCell/2023-24/059 **Date:** 28.11.

To
The Inspector General of Forest / Scientist C,
Integrated Regional Office (IRO),
Ministry of Environment, Forest and Climate Change,
Aranya Bhawan, A Wing, Room No. 409,
Near CH 3 Circle, Sector – 10A,
Gandhinagar – 382007.
E-mail: eccompliance-guj@gov.in, iro.gandhingr-mefcc@gov.in

Sub : Half yearly Compliance report of Environment and CRZ Clearance for "Handling facility of Ge Cargo / LPG /Chemicals and their storage terminal at Navinal Island, Mundra taluka of Kutch di Gujarat"

Ref : Environment and CRZ clearance granted to M/s Adani Ports & SEZ Limited vide letter datec August 1995 bearing no. J-16011/13/95-IA.III

Dear Sir,

Please refer to the above cited reference for the said subject matter. In connection to the same, it is to state copy of the compliance report for the Environmental and CRZ Clearance for the period of April 20 September 2023 is being submitted through soft copy (e-mail communication).

Kindly consider above submission and acknowledge.

Thank you,
Yours Faithfully,
For, **M/s Adani Ports and Special Economic Zone Limited**

Bhagwat Swaroop Sharma
Head – Environment
Mundra & Tuna Port

Encl: As above

Copy to:

1) The Director (IA Division), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawa Bagh Road, New Delhi-110003.
2) The Zonal Officer, Regional Office, CPCB – Western Region, Parivesh Bhawan, Opp. VMC Ward Office N Subhanpura, Vadodara – 390023.
3) The Member Secretary, GPCB – Head Office, Paryavaran Bhavan, Sector 10 A, Gandhi Nagar – 382010.
4) The Director, Forests & Environment Department, Block – 14, 8th floor, Sachivalaya, Gandhi Nagar – 382
5) The Regional Officer, Regional Office GPCB (Kutch-East), Gandhidham – 370201.

Adani Ports and Special Economic Zone Ltd
Adani House,
PO Box No. 1
Mundra, Kutch 370 421
Gujarat, India
CIN: L63090GJ1998PLC034182

Tel +91 2838 25 5000
Fax +91 2838 25 51110
info@adani.com
www.adani.com

Registered Office: Adani Corporate House, Shantigram, Nr. Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad – 382
Gujarat, India

Half Yearly EC Compliance Report Submission -MPT 1995 Period of April 23 to Sept.23 (Part-2)

Bhagwat Swaroop Sharma <Bhagwat.Sharma1@adani.com>

Wed 11/29/2023 7:46 PM

To:eccompliance-guj@gov.in <eccompliance-guj@gov.in>;iro.gandhingr-mefcc@gov.in <iro.gandhingr-mefcc@gov.in>
Cc:ec-rdw.cpcb@gov.in <ec-rdw.cpcb@gov.in>;ro-gpcb-kute@gujarat.gov.in <ro-gpcb-kute@gujarat.gov.in>;ms-gpcb@gujarat.gov.in <ms-gpcb@gujarat.gov.in>;mefcc.ia3@gmail.com <mefcc.ia3@gmail.com>;monitoring-ec@nic.in <monitoring-ec@nic.in>;direnv@gujarat.gov.in <direnv@gujarat.gov.in>;Charanjit Singh <Charanjit.Singh@adani.com>;Sujalkumar Shah <sujal.shah@adani.com>

1 attachments (8 MB)

EC Compliance Report_MPT_Apr'23 to Sep'23_Final-part-2.pdf;

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APSEZL/EnvCell/2023-24/059 **Date:** 28.11.

To
The Inspector General of Forest / Scientist C,
Integrated Regional Office (IRO),
Ministry of Environment, Forest and Climate Change,
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Adani Ports and Special Economic Zone Ltd
Adani House,
PO Box No. 1
Mundra, Kutch 370 421
Gujarat, India
CIN: L63090GJ1998PLC034182

Tel +91 2838 25 5000
Fax +91 2838 25 51110
info@adani.com
www.adani.com

Registered Office: Adani Corporate House, Shantigram, Nr. Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad – 382
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adani
Ports and Logistics

Environmental Clearance Compliance Report

Multi-Purpose Jetty and Storage Facilities at Navinal Island, Mundra, Dist. Kutch, Gujarat

of

Adani Ports and Special Economic Zone Limited

For the Period of:

April-2023 to September-2023

Index

- Chronology of company name change from **M/s. Adani Port Limited** to **M/s. Adani Ports and Special Economic Zone Ltd.** was submitted along with half yearly EC Compliance report for the period Oct'20 to Mar'21.

adani Ports and Logistics	Adani Ports and Special Economic Zone Limited, Mundra.	From : Apr'23 To : Sep'23
Status of the Conditions Stipulated in Environment and CRZ Clearance		

Half yearly Compliance report of Environment and CRZ Clearance for "Handling facility of General Cargo / LPG /Chemicals and their storage terminal at Navinal Island, Mundra taluka of Kutch district, Gujarat" issued vide letter no. J-16011/13/95-IA.III dated 25th Aug., 1995.

Sr. No.	Conditions	Compliance Status as on 30-09-2023
2(i)	All construction designs / drawings relating to various project activities should have the approval of the concerned State Government departments / Agencies.	Complied All construction and operation activities are being carried out in line with the CRZ recommendation and permissions granted.
2(ii)	To prevent discharge of bilge wastes, sewage and other liquid wastes from the oil tankers / ships into marine environment, adequate system for collection, treatment and disposal of liquid wastes including shoreline installation and special hose connections for ships to allow for discharge of sewage must be provided.	Complied Ships berthing at Mundra Port comply with MARPOL regulations. No discharge such as bilge wastes, sewage or any other liquid wastewater is allowed into marine environment inside port limits. APSEZ has adequate Waste Reception facility as per MARPOL and DG Shipping regulations. The port has reception facility for all MARPOL waste streams (Annex-I, Annex-II, Annex-IV & Annex-V) except Annex-VI that is generated from vessels. APSEZL has not received any sewage/liquid waste from ships / vessels till date. As a general practice APSEZ provide facility for receiving slop / waste oil from vessels through hose connection with oil tankers. These tankers divert slop / waste oil to Oil water separator system where water and oil particles are separated. Separated oil is being sold to authorized recycler /re-processor. However, no slope / waste oil was received during the compliance period.
2(iii)	The quality of treated effluents, solid wastes, emissions and noise levels etc. must confirm to the standards laid down by the competent authorities	Complied. ETP is provided to treat the wastewater/wash water. Also the sewage generated from port is being treated in designated ETP. Treated water is used for horticultural purposes. Quality of treated water confirm to the

<table>
<tr><th>Sr. No.</th><th>Conditions</th><th>Compliance Status as on 30-09-2023</th></tr>
<tr><td></td><td>including the central and State Pollution Control Boards under the Environment (Protection) act, 1986 whichever are more stringent.</td><td>
standard laid down by Gujarat Pollution Control Board.
<table>
<tr><th>Location</th><th>Capacity</th><th>Quantity of Treated Water (Avg. from Apr'23 to Sep'23)</th><th>Type of ETP / STP</th></tr>
<tr><td>LT</td><td>265 KLD</td><td>107 KLD</td><td>Activated Sludge</td></tr>
</table>
Entire treated water from ETP / STP is being utilized on land for horticulture purpose within port premises after achieving prescribed permissible limit.

Summary of ETP treated water analysis results during compliance period as mentioned below.

Frequency of Analysis: Once in a month
<table>
<tr><th>Parameter</th><th>Unit</th><th>Min</th><th>Max</th><th>Average</th><th>Perm. Limit[$]</th></tr>
<tr><td>pH</td><td>--</td><td>6.74</td><td>7.52</td><td>7.29</td><td>6.5 – 8.5</td></tr>
<tr><td>TSS</td><td>mg/L</td><td>18</td><td>32</td><td>24.33</td><td>100</td></tr>
<tr><td>TDS</td><td>mg/L</td><td>732</td><td>1106</td><td>852</td><td>2100</td></tr>
<tr><td>COD</td><td>mg/L</td><td>72.6</td><td>89.4</td><td>79.5</td><td>100</td></tr>
<tr><td>BOD</td><td>mg/L</td><td>20</td><td>27</td><td>23.67</td><td>30</td></tr>
<tr><td>Ammonical Nitrogen as NH_3-N</td><td>mg/L</td><td>20.60</td><td>28.80</td><td>24.50</td><td>50</td></tr>
</table>
[$] as per CC&A granted by GPCB

The quality of marine water, treated effluents, air emissions and noise levels are being regularly analyzed by NABL accredited and MoEF&CC recognized agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi. Please refer Annexure – 1.

Monitoring and analysis of ETP treated waste is also carried out regularly through in-house laboratory for the parameters such as pH, TDS, TSS, COD, Chlorides, and residual chlorine.

For detailed analysis reports for the period Apr'23 to Sep'23. Approx. INR 5.08 Lakh is spent for all environmental monitoring activities during the FY 2023-24 till Sep'23 for overall APSEZ.

It is also noted that GPCB is doing regular site inspection
</td></tr>
</table>

Sr. No.	Conditions	Compliance Status as on 30-09-2023
		along with wastewater sampling and analysis. The last GPCB sample analysis report was submitted as part of compliance report submission for the duration of Apr'21 to Sep'21 which shows all the parameters are well within the permissible limit. **Waste Management** – APSEZ has adopted 5R concept for environmentally sound management of different types of solid & liquid wastes. Please refer below details about management of each type of waste. **Non-Hazardous Solid Waste**: A well-established system for segregation of dry & wet waste is in place. All wet waste (Organic waste) is being segregated & utilized for compost manufacturing and/or biogas generation for cooking purpose. The compost is further used by in house horticulture team for greenbelt development. Whereas dry recyclable waste is being sorted in various categories. Presently manual sorting is being done for sorting of different types of solid waste. Segregated recyclable materials such as Paper, Plastic, Cardboard, PET Bottles, and Glasses, etc. are then sent to respective recycling units, whereas remaining non-recyclable waste is bailed and sent to cement plant (M/s. Ambuja Cement Ltd., Kodinar) for Co-processing as RDF (Refused Derived Fuel). APSEZ, Mundra is certified for Zero Waste to Landfill management system (ZWTL MS 2020) by TUVRheinland India Pvt. Ltd. (valid up to 31.05.2024). Details of the same were submitted as part of compliance report submission for the duration of Apr'21 to Sep'21. **Hazardous & Other Waste:** • Bio medical waste generated from OHCs and Adani Hospital is being disposed at Common Bio Medical Waste Treatment Facility namely M/s. Distromed Kutch Services Pvt. Ltd., Bhuj. • E – Waste is being sold to GPCB registered recyclers namely M/s. Galaxy Recycling, Rajkot. • Used Batteries are being sold to GPCB registered recyclers namely Sabnam Enterprise, Kutch and S K Metal Industries, Rajkot.

Sr. No.	Conditions	Compliance Status as on 30-09-2023
		• Solid Hazardous Waste is being disposed through co-processing / incineration/landfilling through common facility i.e. M/s. Saurashtra Enviro Projects Pvt. Ltd., Bhachau, M/s. Safe Enviro Private Limited, Bharuch and/or cement industries of Ambuja Cement Ltd., Kodinar. • Used/Waste Oil is being sold to GPCB authorized recyclers / re-processors namely M/s. Western India Petro Chem Ind - Bhavnagar, Aviation Corporation - Kutch & Aroma Petrochem - Bhavnagar. It is also being reused within organization for lubrication purpose. • Discarded drums / barrels are being sold to authorized decontamination facility i.e. M/s. Jawrawala Petroleum, Ahmedabad. It is also being reused within organization for filling hazardous waste. • Solid hazardous waste i.e. Tank bottom sludge is being sold to authorized recycler namely M/s. Mundra Oil Pvt. Ltd., Mundra for recycling. However during the compliance period, there was no disposal of downgrade chemicals. • Expired paint materials are being disposed by incineration through common facility i.e. M/s. Saurashtra Enviro Projects Pvt. Ltd., Bhachau. However during the compliance period, there was no disposal of downgrade chemicals. • Downgrade chemicals generated from cleaning of storage tanks / pipelines are being sold to authorized solvent recovery facilities namely M/s. Acquire Chemicals, Ankleshwar. However during the compliance period, there was no disposal of downgrade chemicals. • Slop Oil received from vessels is treated to separate water and oil particles in Oil Water Separator system. Separated oil from the same is being sold to authorized recycler / reprocessor namely M/s. Western India Petro Chem Ind - Bhavnagar, Aviation Corporation - Kutch & Aroma Petrochem - Bhavnagar and water is sent to ETP for further treatment. However, during the compliance period i.e. Apr'23 to Sep'23, there was no received or disposal of Slope Oil. • Horticulture waste is collected from various green belt areas and it is using for making of manure and manure is being utilizing in horticulture purpose within plant

<table>
<tr><th>Sr. No.</th><th>Conditions</th><th>Compliance Status as on 30-09-2023</th></tr>
<tr><td></td><td></td><td>
premises.

Details of permissions / agreements of hazardous waste authorized vendors were submitted along with pervious half yearly EC Compliance Reports. And there is no further change.

The following table summarizes the waste management practice (from Apr'23 to Sep'23) for different types of wastes at APSEZ:
<table>
<tr><th>Type of Waste</th><th>Quantity in MT</th><th>Disposal method</th></tr>
<tr><td colspan="3">Hazardous Waste</td></tr>
<tr><td>Pig Waste</td><td>3.70</td><td rowspan="2">Co-processing at cement industries</td></tr>
<tr><td>Oily Cotton waste</td><td>52.64</td></tr>
<tr><td>Used / Spent Oil</td><td>82.93</td><td>Sell to registered recycler</td></tr>
<tr><td>ETP/CETP Sludge</td><td>12.71</td><td>Co-processing at cement industries</td></tr>
<tr><td>Discarded Containers / Barrels</td><td>1.90</td><td>Sell to registered recycler</td></tr>
<tr><td colspan="3">Other Waste</td></tr>
<tr><td>E-Waste</td><td>31.37</td><td>Sell to registered recycler</td></tr>
<tr><td>Battery Waste</td><td>17.83</td><td>Sell to registered recycler</td></tr>
<tr><td>Bio Medical Waste</td><td>3.38</td><td>To approved CBWTF Site</td></tr>
<tr><td colspan="3">Non-Hazardous Waste</td></tr>
<tr><td>Recyclables Dry Waste / Scrap</td><td>1377.09</td><td>After recovery sent for recycling / Reuse within premises</td></tr>
<tr><td>Non-Recyclable Dry Waste (RDF)</td><td>253.54</td><td>Co-processing at Cement Industries</td></tr>
<tr><td>Wet Waste (Food waste + Organic waste)</td><td>459.04</td><td>Converted to Manure for Horticulture use / Biogas for cooking purpose</td></tr>
<tr><td>Horticulture Waste</td><td>405.30</td><td>Used for making of manure and utilize for horticulture purpose</td></tr>
</table>

<u>Ambient Air Quality</u> (twice in a week) and <u>Noise</u> (once in a month) monitoring are being carried out by NABL accredited and MoEF&CC approved agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi. Quality of Ambient Air and Noise level confirm to the standard laid down by SPCB / CPCB. Summary of the same for duration from Apr'23 to Sep'23 is mentioned below.

Total Ambient Air & Noise Sampling Locations: 4 Nos.
</td></tr>
</table>

<table>
<tr><th>Sr. No.</th><th>Conditions</th><th>Compliance Status as on 30-09-2023</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Parameter</th><th>Unit</th><th>Min</th><th>Max</th><th>Average</th><th>Perm. Limit$</th></tr>
<tr><td colspan="6">AAQM</td></tr>
<tr><td>PM_{10}</td><td>µg/m³</td><td>40.32</td><td>89.74</td><td>74.85</td><td>100</td></tr>
<tr><td>$PM_{2.5}$</td><td>µg/m³</td><td>14.28</td><td>48.49</td><td>30.74</td><td>60</td></tr>
<tr><td>SO_2</td><td>µg/m³</td><td>5.87</td><td>41.11</td><td>22.94</td><td>80</td></tr>
<tr><td>NO_2</td><td>µg/m³</td><td>8.13</td><td>48.83</td><td>27.33</td><td>80</td></tr>
<tr><th>Noise</th><th>Unit</th><th>Leq Min</th><th>Leq Max</th><th>Leq Avg.</th><th>Leq Perm. Limit*</th></tr>
<tr><td>Day Time</td><td>dB(A)</td><td>58.50</td><td>69.90</td><td>64.57</td><td>75</td></tr>
<tr><td>Night Time</td><td>dB(A)</td><td>54.20</td><td>64.80</td><td>59.73</td><td>70</td></tr>
</table>
$ as per NAAQ standards, 2009
* as per CC&A granted by SPCB
Values recorded confirms to the stipulated standards.

Please refer Annexure – 1 for detailed analysis reports for the period Apr'23 to Sep'23. Approx. INR 5.08 Lakh is spent for all environmental monitoring activities during the FY 2023-24 till Sep'23 for overall APSEZ.
</td></tr>
<tr><td>2(iv)</td><td>Adequate provision for infrastructure facilities such as water supply, roads, sanitation etc. should be ensured so as to avoid environmental degradation in the surrounding areas. These facilities should be brought into existence during the construction phase and will remain in existence thereafter as part of the infrastructure build up in the area for local developmental purposes.</td><td>Complied.

Construction activity is already completed. Adequate infrastructure facility was provided to labours during construction phase and those are in existence.

The facility for drinking water, toilet and rest shelter are provided for the dignity of operation labours. Photographs of the same were submitted along with the compliance report submission for the period Oct'16 to Mar'17.</td></tr>
<tr><td>2(v)</td><td>Adequate noise control measures should be ensured in various project activities and due to increase in the traffic which is likely to take place during construction and operational phases.</td><td>Complied.
Construction phase is completed.

For operation phase, following noise control measures are taken:
• All DG sets are installed with acoustic enclosure confirming EPA norms.
• Proper maintenance of equipments / plant machineries is being done on regular basis.
• Green Belt has been developed at road sides and operational areas.
• Traffic control measures such as signage, speed</td></tr>
</table>

Sr. No.	Conditions	Compliance Status as on 30-09-2023
		regulation, traffic guides etc. are in place to reduce the unnecessary honking by cargo vehicles.

2(vi)	The water quality parameters such as dissolved oxygen, ammonical nitrogen and other nutrients etc. should be measured at regular intervals to ensure adherence to the prescribed standards of water qualities. Suitable ground water monitoring should also be undertaken around the sludge lagoons and regular reports to be submitted to the Ministry for evaluation.	Complied. ETP having 265 KLD capacity is provided for treatment of wastewater. Treated water is used for horticulture purpose within premises after confirming permissible limit. The watery sludge is transferred to sludge drying bed, where the excess wastewater is recirculated to ETP. Monitoring and analysis of ETP treated waste is also carried out regularly through in-house laboratory for the parameters such as pH, TDS, TSS, COD, Chlorides, and residual chlorine. Third party analysis of the treated water is being carried out once in a month by NABL accredited and MoEF&CC approved agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi. Summary of the same for duration of Apr'23 to Sep'23 is mentioned in compliance condition no. 2(iii) above. **Marine Monitoring:** Marine monitoring (Surface, Bottom and Sediment) is being carried out once in a month by NABL accredited and MoEF&CC approved agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi. Summary of the same for duration from Apr'23 to Sep'23 is mentioned below. Monitoring Reports are attached as **Annexure – 1** for the same. **Total Sampling Locations: 09 Nos.**

Parameter	Unit	Surface			Bottom		
		Min	Max	Avg.	Min	Max	Avg.
pH	--	7.95	8.27	8.14	7.81	8.15	7.98
BOD (3 Days @ 27 °C)	mg/L	2.2	3.8	3.01	BDL(MDL:1.0)	BDL(MDL:1.0)	BDL(MDL:1.0)
TSS	mg/L	94	154	120.26	72	128	101.04
DO	mg/L	5.85	6.37	6.15	5.52	6.22	5.83
Salinity	ppt	34.89	36.94	36.00	35.62	37.84	36.73
TDS	mg/L	35860	37844	36675	36540	38124	37299

*BDL – Below Detection Limit
*MDL – Minimum Detection Limit

Ground Water Monitoring:

There are no sludge lagoons however, to monitor the ground water quality, bore wells are provided at various location in the port and SEZ areas. Third party analysis of the ground water is being carried out twice a year by NABL accredited and MoEF&CC approved agency namely M/s. Unistar Environment and Research Labs Private Limited., Vapi. Summary of the same for duration of Apr'23 to Sep'23 is mentioned below.

Sampling Locations: 5 Nos.

Parameters	Unit	Min	Max	Average
pH @ 25 ° C	--	7.67	8.49	8.22
Salinity	ppt	0.37	5.82	3.13
Oil & Grease	mg/L	*BDL	*BDL	*BDL
Hydrocarbon	mg/L	ND*	ND*	ND*
Lead as Pb	mg/L	*BDL	*BDL	*BDL
Arsenic as As	mg/L	*BDL	*BDL	*BDL
Nickel as Ni	mg/L	0.03	0.25	0.09
Total Chromium as Cr	mg/L	*BDL	*BDL	*BDL
Cadmium as Cd	mg/L	0.01	0.15	0.05
Mercury as Hg	mg/L	*BDL	*BDL	*BDL
Zinc as Zn	mg/L	0.06	0.14	0.08
Copper as Cu	mg/L	*BDL	*BDL	*BDL
Iron as Fe	mg/L	0.15	0.95	0.42
Insecticides/Pesticides	µg/L	ND*	ND*	ND*
Depth of Water Level from Ground Level	meter	1.90	2.14	2.02

ND*= Not Detectable
*BDL – Below Detection Limit

Please refer **Annexure – 1** for detailed analysis reports for the period Apr'23 to Sep'23. Approx. INR 5.08 Lakh is spent for all environmental monitoring activities during the FY 2023-24 till Sep'23 for overall APSEZ.

Status of the Conditions Stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 30-09-2023
2(vii)	Adequate culverts should be provided for smaller creeks so that breeding grounds for crabs, mud snappers and other marine organisms are not cut off by road construction activities.	Complied. Adequate culverts are provided on prominent creek system named as (1) Kotdi (2) Baradimata (3) Navinal (4) Bocha (5) Mundra (Oldest port (Juna Bandar) leading to Bhukhi river). All above creeks are in existence allowing free flow of water and there is no filling or reclamation of any creek area. APSEZL has so far constructed 19 culverts having total length of approx. 1100 m with total cost of INR 20 Crores. Apart from that three RCC Bridges have been constructed over Kotdi creek with total length of 230 m and cost of INR 10 Crores. Photographs of the same were submitted as part of compliance report submission for the duration of Apr'17 to Sep'17.
2(viii)	A hundred meter wide mangrove belt should be created all along the west of Navinal Creek till its junction up to new road. Green belt of 50 M width should also be provided all along the periphery of the plant site and along the roads, storage tanks etc. at 1500 trees per hectare. All details regarding the Mangrove belt and other afforestation work must be worked out in consultation with the State Forest Department, and details sent to the Ministry.	Complied. 24 hectare of Mangrove afforestation was carried out with a cost of INR 25.0 Lac at west of Navinal creek. All Mangrove plantations were done in consultation with Dr. Maity, Mangrove consultant of India. Green belt was developed 72.67 ha. Total 149959 trees were planted with the density of 2060 trees per hectare within the port area. So, far APSEZ has developed 457.99 ha. area as greenbelt with plantation of more than 9.06 Lacs saplings within the APSEZ area. To enhance the marine biodiversity, till date APSEZ has carried out mangrove afforestation in 3890 ha. area across the coast of Gujarat. Total expenditure for the same till date is INR 1070.8 lakh. Details on Mangroves afforestation & Green belt development carried out by APSEZ till date is annexed as **Annexure – 2**. Other than this Adani Foundation – CSR Arm of Adani Group at Mundra-Kutch has initiated multi-species plantation of mangroves in Luni village in association with GUIDE, Gujarat. During 2018-2019 (Phase-I) multi-species mangrove plantation was carried out in 10 ha,

Sr. No.	Conditions	Compliance Status as on 30-09-2023
		during Phase-II (2019-2020) it was 02 ha and during Phase III (2020-2021) it is 01 ha. During FY 2021-22, 03 ha area coastal stretches have been planted with species. During current FY 2022-23, 04 Hector plantation has been planted with various species. Total 20 Ha. multi-species mangrove plantation has been carried out till March-23 association with M/s. GUIDE, Gujarat. These plantations are diligently maintained and continually monitored. Notably, these forests have evolved into a thriving habitat for various marine and migratory bird species, enriching the local ecosystem. Since PhD scholars and students frequently visit this area for study. we plan to establish it as a Center of Excellence, serving as a hub to create awareness among students and facilitating research activities for scientist. Please refer attached **Annexure – 3** for CSR activity report carried out by Adani Foundation.
2(ix)	Arrangements should be made for ensuring fresh water availability for various project related activities. Special water harvesting programs should be undertaken in the project impact area. Details of these activities should be reported to the Ministry.	Complied. During the project phase, GWIL was the source of water to ensure freshwater availability. Present source of water for various project activities is desalination plant of APSEZ and/or through Gujarat Water Infrastructure Limited (GWIL). Average water consumption for entire APSEZ area is 4.14 MLD during compliance period i.e. Apr'23 to Sep'23. Groundwater recharge cannot be done at the project site since the entire project is in the intertidal / sub tidal areas. Rainwater within project area is managed through storm water drainage. We have installed Rainwater recharge bore well (4 Nos.) within our township to recharge ground water. Details of the same were submitted along with half yearly EC compliance report for the period Apr'19 to Sep'19. During FY 2023-24 approx. 4.58 ML of rainwater has been recharged to increase the ground water table.

<table>
<tr><th>Sr. No.</th><th>Conditions</th><th>Compliance Status as on 30-09-2023</th></tr>
<tr><td></td><td></td><td>
We have also connected roof top rainwater duct of operational building (Tug berth building within MPT) with u/g water tank for utilization of collected rainwater for gardening / horticulture purpose. Details of the same were submitted along with EC Compliance report for the period Oct'18 to Mar'19.

However, Adani Foundation – CSR arm of Adani Group has carried out rainwater harvesting activities in the nearby villages for benefit of the locals.

Water conservation Projects i.e. Roof Top Rain Water Harvesting, Desilting of Check dams, Bore Well Recharge and Pond deepening were taken up in past years, review and monitoring of all water harvesting structures had been taken up.

To make connections between human actions and the level of biological diversity found within a habitat and/or ecosystem, this year Adani Foundation launch project "Sanrakshan" in coordination with GUIDE and Sahjeevan. Since 10 years considerable Water Conservation Work carried out in Mundra Taluka. Due to satisfactory rain in current year 1.11 mtr ground water table increased as per increased in coastal belt of Mundra as per Government Figures.

Our water conservation work is as below.
Water Conservation Projects –
Below tabulated Water Conservation Projects completed during Compliance period:
<table>
<tr><th>Sr. No.</th><th>Project</th><th>Unit</th><th>Outcome</th><th>Impact</th></tr>
<tr><td>1</td><td>Check dam Restrengthening-Nana Kapaya</td><td>1</td><td>Water Storage Capacity increased by 48000 Cum</td><td>60 + farmer's 120+Acre Area of Agri land can be Irrigated</td></tr>
<tr><td>2</td><td>Recharge Borewell</td><td>21</td><td>Reduce Salinity ingress, and preventing water run</td><td>150+ farmer's 260+ Acre Area of Agri land for Irrigated</td></tr>
</table>
</td></tr>
</table>

Sr. No.	Conditions	Compliance Status as on 30-09-2023
		<table><tr><td>3</td><td>Pipe Culvert at Checkdamat Bhujpur</td><td>1</td><td>prevent water runoff into seaside.</td><td>35 farmers' 120+Acre Area of Agri land can be Irrigated</td></tr></table> **Earlier Completed Activities/Projects:** • Large number of water harvesting structure (18 Nos. of check dams in coordination with salinity department) and Augmentation of 3 nos. check dams.Ground recharge activities (pond deepening work for 61 ponds) individually and 26 ponds under Sujlam Suflam Jal Abhiyan were built leading to a significant increase in water table and higher returns to the farmers. • New Pond Deepening Under Ajadi ka Amrut Mahotsav done in Goyarsama village Approx Deepening Capacity is 12000 Cum. • Roof Top Rainwater Harvesting 145 Nos. (40 Nos. current FY 2022-23) which is having 10,000 litre storage which is sufficient for one year drinking water purpose for 5 people family. • Recharge Borewell 208 Nos (19 Nos. current FY 2022-23) which is best ever option to direct recharge the soil. • Drip Irrigation approx. 1505 Farmers benefitted in coordination with Gujrat Green Revolution Company till date. • Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which borewell depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar. • Pond Pipeline work at Prasla Vistar Zarpara which increase recharge capacity more than 25% in 100 hector area. • Check dam gate valve construction at Bhujpur which controlled more than 350 MCFT water to go into sea and get recharged current year. With the objective of to preserve the rainwater to reduce the impact of salinity and recharge the ground water (the main source of water) to facilitate the Agricultural activities as well as for drinking water. Please refer **Annexure – 3** for full details of CSR activities carried out by Adani Foundation in the Kutch region. Budget for CSR Activity for the FY 2023-24 is to the tune of INR 953.50 lakh. Out of which, Approx. INR 374.81 lakh is spent in FY 2023-24 till Sep'23.
2(x)	While filling the storage tanks, compatibility of the	Complied.

<table>
<tr><th>Sr. No.</th><th>Conditions</th><th>Compliance Status as on 30-09-2023</th></tr>
<tr><td></td><td>chemicals should be ensured for chemical safety. Since 5000 MT capacity is proposed to be created for cryogenic conditions, necessary HAZOP study should be initiated and submitted to the Ministry within three months. Calculations carried out on the basis of EFFECT MODEL for this storage should be rechecked for various accident scenarios. Keeping in view the safety aspects, Horton spheres of 1250 MT capacity each should be preferred.</td><td>Risk assessment study was carried out by M/s. Comet Consultancy Services in January 1995 as a part of EIA for storage of various chemicals in tanks for chemical safety and the same was submitted to MoEF&CC while processing EC application.

Risk assessment study was carried out by iFluids Engineering for handling and storage of LPG in three parts as mentioned below.
1. QRA for LPG Jetty Area
2. QRA for LPG Pipeline
3. QRA for LPG Tank farm

A copy of the same was submitted as part of compliance report for the duration of Apr'17 to Sep'17.

Recommendations of the risk assessment have been implemented as part of the construction activity and details of the same were submitted along with half yearly compliance report for the period Oct'18 to Mar'19.
Implementation report of risk assessment recommendations during operational activity was submitted along with half yearly compliance report for the period Oct'19 to Mar'20.</td></tr>
<tr><td>2(xi)</td><td>The measures suggested by the Gujarat State Pollution Control Board in February, 1995 while according "No Objection Certificate" should be strictly followed and authorization certificate required for converting NOC into "consent to operate" should be submitted within three months.</td><td>Complied.

Consent to operate (CC&A) has been renewed from GPCB vide consent no. AWH-117045 valid till 20th November, 2026. The copy of CtO renewal was submitted along with last half yearly compliance report for the period Oct'21 to Mar'22.

Consent to Establish (CtE) and Consent to Operate (CtO) are obtained from GPCB and renewed/amended from time to time as per the progress of the project activity. The present in-force CtE / CtO are mentioned below.

<table>
<tr><th>Sr. No.</th><th>Permission</th><th>Project</th><th>Ref. No. / Order No.</th><th>Valid till</th></tr>
<tr><td>1</td><td>CtO – Renewal</td><td>Mundra Port Terminal</td><td>AWH-117045</td><td>20.11.2026</td></tr>
<tr><td>2</td><td>CtE – Amendment</td><td>WFDP</td><td>17739 / 15618</td><td>18.05.2027</td></tr>
<tr><td>3</td><td>CC&A - Correction</td><td>Mundra Port Terminal</td><td>PC/CCA-KUTCH-39(7)/GPCB ID</td><td>19.06.2021</td></tr>
</table>
</td></tr>
</table>

Sr. No.	Conditions	Compliance Status as on 30-09-2023
		<table><tr><td></td><td></td><td></td><td>17739/592900</td><td></td></tr></table> The permission mentioned above (Sr. No. 2) was submitted along with earlier compliance report submission. The copy of CtO renewal order was submitted along with last half yearly compliance report for the period Oct'21 to Mar'22. A copy of CCA correction letter is attached as **ANNEXURE-4.**
2(xii)	For ensuring the acceptance of the project by the local people, a Resolution of the Official Panchayat of the Region should be obtained offering their concurrence in writing by the project proponents and submitted to the Ministry by 31st October, 1995.	Complied. Resolution from the Panchayat has been obtained and submitted to the Ministry of Environment, Forest & Climate Change on 31st July, 2012.
2(xiii)	A permanent staff structure should be created with latest R&D facilities and suitable equipments for environmental and forestry activities through creation of Environmental cell. Adequate funds should be earmarked for this cell.	Complied. APSEZ has a well-structured Environment Management Cell, staffed with qualified manpower for implementation of the Environment Management Plan at site. Site team report to Sr. Manager (Environment), who heads the Environment Management Cell who directly reports to the top management. Environment Management Cell Organogram were submitted as part of previous compliance report submission for the duration of Apr'21 to Sep'21. And there is no further change. 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 823.48 lakh are spent during the year FY 2023-24 till Sep'23. Detailed breakup of the expenditures for the past 3 years is attached as **Annexure – 5**.
2(xiv)	Landsat imagery should be obtained on a continuous basis covering various seasons to study the change in the land use pattern due to the project and project related activities.	Complied. Project is in operation phase since many years and there is no change in the land use pattern.

adani Ports and Logistics	Adani Ports and Special Economic Zone Limited, Mundra.	From : Apr'23 To : Sep'23

Status of the Conditions Stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 30-09-2023
2(xv)	With a view to providing adequate job opportunities to local people, facilities for technical training and development of skills should be made available in consultation with the state Harbour Department, and to this end it must be ensured that there is allocation of adequate funds. The local people should be involved in the afforestation program proposed for the scheme to ensure public participation and success of vegetation programmes.	Complied. Adani Foundation – CSR Arm of Adani Group is doing following activities as a part of Skill Development in surrounding communities in Kutch area. • Adani Skill Development Center (ASDC), Mundra & Bhuj is providing skill development training to the locals for Soft Skill, Technical Training and Carrier Guidance & knowledge-based training. • Adani Skill Development Centre (ASDC) is playing a pivotal role in implementing sustainable development in the state. ASDC is envisioned to be playing a major role in elevating the socio-economic status of the people belonging to the lowest strata of the society by empowering them with various skill development training for employability and livelihood. • Over the last few years, ASDC has assessed various aspects of the technical, leadership and soft skills gaps that organizations, in general, face and accordingly focuses on imparting required training in those areas in partnership with various colleges and institutes. • ASDC imparted various soft skilled and technical training to make Atma Nirbhar India. • During FY 2022-23, Total 4706 people trained in various trainings to enhance socio economic development. • Preference is given to local people for employment based on their qualification and experience. • All Mangrove plantations are done in consultation with GUIDE and Local Forest dept. • 24 hectare of mangrove afforestation at Mundra was done through active participation of local fishermen at the cost of INR 25.0 Lac. • Mangrove plantation and Nursery development work has created a two-facet impact by providing Livelihood to Fisherfolk during two months Fishing during Off season and developing 162 hector dense mangrove afforestation 4445 Men days' work provide to Fisherfolk community of Luni, Sekhdiya and Bhadreshwar Villages in coordination with Horticulture Department during the FY 22-23

Sr. No.	Conditions	Compliance Status as on 30-09-2023
		Details on skill development training imparted during compliance period i.e. Apr'23 to Sep'23 by Adani Foundation are available in CSR report enclosed as **Annexure – 3**.
2(xvi)	Prior clearance must be taken under the Hazardous Chemicals (manufacture, import and storage) Rules 1989, as amended up to date, from the competent authority. Such clearance will have to be taken prior to the commissioning of the project.	Complied. Permissions for storage of Hazardous Chemicals were obtained from MSIHC against the application made on 01.05.1999 through letter reference no. Kutch-HAZ/CHEM-23(2)/9713 while chemical storage permission against application made on 18.09.1999 was provided through letter reference no. Kutch-HAZ/CHEM-23(2)/9711. Approval from the PESO is obtained for import of hazardous chemicals as per License No. P/HQ/GJ/15/2050 (P12369) dated 18/07/2016 which is valid up to 31/12/2024 for Class A & Class C petroleum. A copy of the same was submitted along with the compliance report submission for the period of Oct'16 to Mar'17 and there is no further change. Please refer point no. 2 (xi) regarding GPCB permissions. License under Factories Act is taken dated 07.10.1998 and last renewed vide license no. 0017 on 17.05.2019 is valid up to 31.12.2023. The same details was submitted during the last compliance period Oct'22 to Mar'23.

<table>
<tr><th>Sr. No.</th><th>Conditions</th><th>Compliance Status as on 30-09-2023</th></tr>
<tr><td>2(xvii)</td><td>A detailed progress report should be submitted to the Ministry on each of the conditions stipulated above in respect of the follow-up action taken every six months. The first of these two reports should be sent in by 31.3.1996.</td><td>Complied.

Compliance report of EC conditions is uploaded regularly. A soft copy of last compliance report including results of monitoring data for the period of Oct'22 to Mar'23 was submitted through e-mail to Regional Office of Integrated Regional Office (IRO) @ Gandhinagar, Zonal Office of CPCB @ Baroda, GPCB @ Gandhinagar & Gandhidham and Dept. of Forests & Env., Gandhinagar on dated 30.05.2023. Copy of the same is also available on our web site https://www.adaniports.com /ports-downloads. Please refer below for the details regarding past six compliance submissions.

<table>
<tr><th>Sr. No.</th><th>Compliance period</th><th>Date of submission</th></tr>
<tr><td>1</td><td>Apr'20 to Sep'20</td><td>26.11.2020</td></tr>
<tr><td>2</td><td>Oct'20 to Mar'21</td><td>25.05.2021</td></tr>
<tr><td>3</td><td>Apr'21 to Sep'21</td><td>30.11.2021</td></tr>
<tr><td>4</td><td>Oct'21 to Mar'22</td><td>30.05.2022</td></tr>
<tr><td>5</td><td>Apr'22 to Sep'22</td><td>30.11.2022</td></tr>
<tr><td>6</td><td>Oct'22 to Mar'23</td><td>30.05.2023</td></tr>
</table>
</td></tr>
<tr><td>2(xviii)</td><td>Financial requirements for implementation of the above indicated environmental mitigative measures should be worked out and included in the total cost of the project. Provision for enhancing this allocation in future should also be made.</td><td>Complied.

Separate budget for the Environment protection measures is earmarked every year. All the expenses are recorded in advanced accounting system of the organization. Details regarding environmental expenditures are as per compliance condition no. 2(xiii) above.</td></tr>
</table>

Annexure – 1

"Half Yearly Environmental Monitoring Reports "

For,

adani
Ports and Logistics

M/S. ADANI PORTS & SPECIAL ECONOMIC ZONE LTD.

PLOT NO. 169/P, AT - NAVINAL ISLAND, TAL. - MUNDRA, DIST. - KUTCH - 370421.

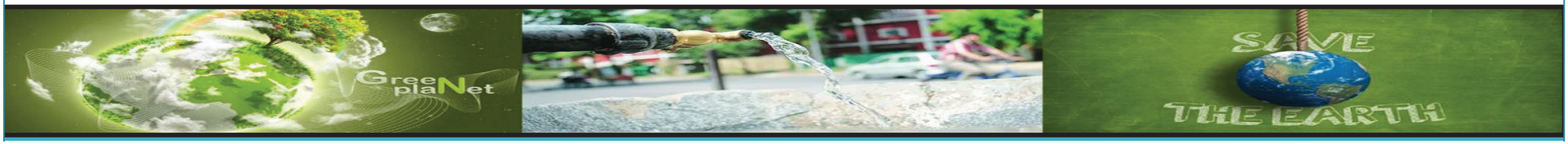
Monitoring Period: April – 2023 to September - 2023

Submitted By

UniStar
Environment and Research Labs Pvt. Ltd.

UniStar Environment & Research Labs Pvt. Ltd.

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



UniStar
Environment and Research Labs Pvt. Ltd.

White House
Near G.I.D.C. Office, Char Rasta,
Vapi - 396 195. Gujarat, India.
Phone : +91 260 2433966 / 2425610
Email : response@uerl.in Website : www.uerl.in

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

MARINE WATER MONITORING SUMMARY REPORT

RESULTS OF MARINE WATER [M1 LEFT SIDE OF BOCHA CREEK - N 22°45'183" E 069°43'241"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.22	8.06	8.18	8.05	8.06	7.92	7.98	7.91	8.01	7.89	8.05	7.92	IS 3025 (Part11)1983
2.	Temperature	°C	30.2	30	30.3	30.2	30.2	30.1	30	29.9	30	29.9	29.9	29.8	IS 3025 (Part 9)1984
3.	Total Suspended Solids	mg/L	118	96	122	114	124	110	118	102	128	110	144	118	APHA 23rd Ed.,2017,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	2.8	BDL	2.9	BDL	3	BDL	3.1	BDL	3.2	BDL	2.9	BDL	IS 3025(Part 44)1993Amd.01
5.	Dissolved Oxygen	mg/L	6.32	6.02	6.37	5.96	6.3	5.89	6.22	5.82	6.32	6.02	5.95	5.75	APHA 23rd Ed.,2017,4500-O, B
6.	Salinity	ppt	36.89	37.18	36.52	37.48	35.84	36.56	35.74	36.33	35.76	36.42	35.24	35.7	By Calculation
7.	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part39) 1991, Amd. 2
8.	Nitrate as NO_3	µmol/L	3.19	2.54	2.98	2.67	2.84	2.59	2.93	2.76	3.71	3.39	3.06	2.9	APHA 23rd Ed., 2017,4500 NO3-B
9.	Nitrite as NO_2	µmol/L	0.388	0.259	0.422	0.336	0.345	0.3	0.3	0.235	0.348	0.304	0.391	0.37	APHA 23rd Ed.,2017,4500NO_2B
10.	Ammonical Nitrogen as NH_3	µmol/L	3.15	2.93	3.45	3.1	2.49	2.06	2.54	2.45	3.42	3.39	3.32	3.26	APHA 23rd Ed., 2017,4500- NH3 B
11.	Phosphates as PO_4	µmol/L	0.73	0.65	0.6	0.47	0.517	BDL	1.16	1.05	1.26	1.16	1.68	1.47	APHA 23rd Ed.,2017,4500-P, D
12.	Total Nitrogen	µmol/L	6.728	5.729	6.852	6.106	5.675	4.95	5.77	5.445	7.478	7.084	6.771	6.53	APHA 23rd Ed., 2017,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
14.	Total Dissolved Solids	mg/L	37050	37640	37156	37890	36860	37422	36430	37106	36524	37156	36630	37102	APHA 23rd Ed.,2017, 2540- C
15.	COD	mg/L	24.07	12.04	27.97	11.99	32.26	16.13	24.31	12.16	28.31	12.13	15.95	7.98	APHA 23rd Ed.,2017, 5220-B

Continue…

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
CIN:U73100GJ2007PTC051463

RESULTS OF MARINE WATER [M1 LEFT SIDE OF BOCHA CREEK - N 22°45'183" E 069°43'241"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
A	Phytoplankton														
1.	Chlorophyll	mg/m³	3.01	2.56	2.98	3.22	3.05	2.66	2.36	3.24	3.12	3.02	2.99	3.41	APHA (23rd Ed. 2017)10200 H
2.	Phaeophytin	mg/m³	0.98	1.03	1.23	1.44	1.56	1.69	1.42	2.14	1.85	1.15	1.47	2.11	APHA (23rd Ed. 2017)10200 H
3.	Cell Count	No. x 10³/L	79	84	84	142	98	178	125	124	99	105	108	120	APHA (23rd Ed. 2017)10200 F
4	Name of Group Number and name of group species of each group	--	*Nitzschia*	*Navicula*	*Nitzschia*	*Navicula*	*Rhizosolenia*	*Ceratium*	*Melosira*	*Biddulphia*	*Ceratium*	*Cyclotella*	*Coscinodiscus*	*Nitzschia*	APHA (23rd Ed. 2017)10200 F
			Pinnularia	*Fragillaria*	*Navicula*	*Fragillaria*	*Biddulphia*	*Pinnularia*	*Pinnularia*	*Rhizosolenia*	*Diploneis*	*Pinnularia*	*Diploneis*	*Pinnularia*	
			Odontella	*Thalassiothrix*	*Odontella*	*Thalassiothrix*	*Skeletonema*	*Odontella*	*Skeletonema*	*Coscinodiscus*	*Odentella*	*Skeletonema*	*Rhizosolenia*	*Odontella*	
			Dinophysis	*Grammatophora*	*Dinophysis*	*Grammatophora*	*Thallassiosira*	*Thalassiothrix*	*Rhizosolenia*	*Skeletonema*	*Grammatophora*	*Thallassiosira*	*Dinophysis*	*Dinophysis*	
			Surirella	*Surirella*	*Thallassiosira*	*Surirella*	*Thalassionema*	*Thallassiosira*	*Pleurosigma*	*Thallassiosira*	*Melosira*	*Thalassionema*	*Thalassionema*	*Surirella*	

B	Zooplankton								
1	Abudance(Population)	noX103/ 100 m3	63	33	40	33	33	41	APHA (23rd Ed. 2017)10200 G
2	Name of Group Number and name of group species of each group		*Egg(Fish and Shrimps)*	*Egg(Fish and Shrimps)*	*Decapoda*	*Decapoda*	*Egg(Fish and Shrimps)*	*Crustacean Larvae*	
			Oikoplura	*Oikoplura*	*Copepods*	*Copepods*	*Oikoplura*	*Egg(Fish and Shrimps)*	
			Copepods nauplii	*Copepods nauplii*	*Crustacean Larvae*	*Crustacean Larvae*	*Copepods nauplii*	*Copepods*	
			Crustacean	*Crustacean*	*Crustacean*	*Crustacean*	*Crustacean*	*Crustacean*	
			Bivalve Larvae	*Bivalve Larvae*	*Oikoplura*	*Oikoplura*	*Bivalve Larvae*	*Bivalve Larvae*	
3	Total Biomass	ml/100 m³	15.32	14.25	15.36	16.58	15.86	16.54	

Continue…

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UniStar
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White House
Near G.I.D.C. Office, Char Rasta,
Vapi - 396 195. Gujarat, India.
Phone : +91 260 2433966 / 2425610
Email : response@uerl.in Website : www.uerl.in

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RESULTS OF MARINE WATER [M1 LEFT SIDE OF BOCHA CREEK - N 22°45'183" E 069°43'241"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
C	Microbiological														
1	Total Bacterial Count	CFU/ml	150		210		278		266		286		254		APHA 23rd Ed.2017,9215-C
2	Total Coliform	/100ml	40		52		44		54		68		51		APHA 23rd Ed.2017,9222-B
3	Ecoli	/100ml	30		36		23		36		41		35		IS :15185:2016
4	Enterococcus	/100ml	25		22		19		22		29		20		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 23rd Ed.2017,9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
CIN:U73100GJ2007PTC051463

RESULTS OF SEDIMENT ANALYSIS [M1 LEFT SIDE OF BOCHA CREEK - N 22°45'183" E 069°43'241"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
1.	Organic Matter	%	0.51	0.42	0.47	0.46	0.42	0.48	IS: 2720 (Part 22):1972 RA.2015, Amds.1
2.	Phosphorus as P	µg/g	544.4	490.8	476.5	480.8	464.5	482.4	IS: 10158 :1982, RA.2009 Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
5.0	Heavy Metals								
5.1	Aluminum as Al	%	3.91	4.01	4.11	4.02	3.95	3.97	IS3025(Part 55)2003
5.2	Total Chromium as Cr+3	µg/g	138	114.4	117.2	112.2	115.6	118.2	EPA 3050B/7190 (Extraction &Analytical Method): 1986
5.3	Manganese as Mn	µg/g	580.1	594.4	612.4	627.1	590.4	606.2	EPA 3050B/7460 (Extraction &Analytical Method): 1986
5.4	Iron as Fe	%	3.86	3.92	3.96	3.89	3.85	3.89	EPA 3050B/7380 (Extraction &Analytical Method): 1986
5.5	Nickel as Ni	µg/g	55.28	48.6	41.2	44.28	45.34	41.38	EPA 3050B/7520 (Extraction &Analytical Method): 1986
5.6	Copper as Cu	µg/g	46.35	41.24	36.24	32.64	33.42	36.54	EPA 3050B /7210 (Extraction &Analytical Method):1986
5.7	Zinc as Zn	µg/g	110.8	128.5	119.5	124.2	130.5	124.4	EPA 3050B/7950 (Extraction &Analytical Method): 1986
5.8	Lead as Pb	µg/g	2.31	2.42	2.49	2.41	2.34	2.41	EPA 3050B /7420 (Extraction &Analytical Method):1986
5.9	Mercury as Hg	µg/g	BDL	BDL	BDL	BDL	BDL	BDL	EPA 7471B (Extraction &Analytical Method) :2007

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UniStar
Environment and Research Labs Pvt. Ltd.

White House
Near G.I.D.C. Office, Char Rasta,
Vapi - 396 195. Gujarat, India.
Phone : +91 260 2433966 / 2425610
Email : response@uerl.in Website : www.uerl.in

RESULTS OF SEDIMENT ANALYSIS [M1 LEFT SIDE OF BOCHA CREEK - N 22°45'183" E 069°43'241"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
D	Benthic Organisms								
1	Macrobenthos	--	*Amphipods*	*Amphipods*	*Polychates*	*Amphipods*	*Gastropods*	*Isopods*	APHA (23rd Ed. 2017)10500 C
			Decapod Larvae	*Sipunculids*	*Gastropods*	*Decapod Larvae*	*Isopods*	*Polychates*	
			Isopods	*Isopods*	*Isopods*	*Isopods*	*Amphipods*	*Sipunculids*	
			Gastropods	*Gastropods*	*Sipunculids*	*Gastropods*	*Sipunculids*	*Amphipods*	
2	MeioBenthos	--	*Turbellarians*	*Decapod Larvae*	Herpectacoids	Foraminiferan	*Polychates*	*Herpectacoids*	
			Herpectacoids	*Herpectacoids*	*Polychates*	*Turbellarians*	*Herpectacoids*	*Decapods Larvae*	
3	Population	no/m^2	356	333	368	244	250	333	

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
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RESULTS OF MARINE WATER [M2 MOUTH OF BOCHA & NAVINAL CREEK - N 22°44'239" E 069°43'757"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.15	7.91	8.24	8.09	8.16	7.98	8.09	7.96	8.14	7.85	8.11	7.88	IS 3025 (Part11)1983
2.	Temperature	°C	30.1	30.2	30.3	30.2	30.2	30.1	30.1	30	30	29.9	29.8	29.7	IS 3025 (Part 9)1984
3.	Total Suspended Solids	mg/L	142	114	128	106	132	110	108	98	142	122	128	106	APHA 23rd Ed.,2017,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	2.9	BDL	3.1	BDL	2.9	BDL	3.2	BDL	3.3	BDL	2.8	BDL	IS 3025(Part 44)1993Amd.01
5.	Dissolved Oxygen	mg/L	6.22	5.92	6.27	5.86	6.2	5.79	6.12	5.72	6.32	5.81	5.85	5.75	APHA 23rd Ed.,2017,4500-O, B
6.	Salinity	ppt	36.94	37.24	36.57	37.62	36.24	37.11	36.12	36.48	36.18	36.52	34.89	35.62	By Calculation
7.	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part39) 1991, Amd. 2
8.	Nitrate as NO_3	µmol/L	2.97	2.37	3.32	2.8	3.23	2.8	3.45	2.76	3.55	3.06	3.23	2.74	APHA 23rd Ed., 2017,4500 NO3-B
9.	Nitrite as NO_2	µmol/L	0.259	0.19	0.371	0.267	0.379	0.344	0.431	0.345	0.456	0.413	0.435	0.391	APHA 23rd Ed.,2017,4500NO_2B
10.	Ammonical Nitrogen as NH_3	µmol/L	3.49	3.23	4.31	3.79	3.96	2.93	2.84	2.49	3.48	3.39	3.39	3.26	APHA 23rd Ed., 2017,4500- NH3 B
11.	Phosphates as PO_4	µmol/L	0.47	0.43	0.43	BDL	0.56	0.6	1.47	1.37	1.58	1.37	2.11	1.9	APHA 23rd Ed.,2017,4500-P, D
12.	Total Nitrogen	µmol/L	6.719	5.79	8.001	6.857	7.569	6.074	6.721	5.595	7.486	6.863	7.055	6.391	APHA 23rd Ed., 2017,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
14.	Total Dissolved Solids	mg/L	36700	36930	37110	37640	36860	37520	36288	37124	36308	37142	36340	37160	APHA 23rd Ed.,2017, 2540- C
15.	COD	mg/L	20.06	8.02	35.96	7.99	40.32	12.1	20.26	8.1	24.26	12.13	19.94	7.98	APHA 23rd Ed.,2017, 5220-B

RESULTS OF MARINE WATER [M2 MOUTH OF BOCHA & NAVINAL CREEK - N 22°44'239" E 069°43'757"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
A	Phytoplankton														
1.	Chlorophyll	mg/m³	3.12	2.78	2.63	2.89	2.56	3.02	3.02	2.59	3.02	2.84	3.15	3.56	APHA (23rd Ed. 2017)10200 H
2.	Phaeophytin	mg/m³	1.54	0.89	0.87	1.36	1.22	2.02	1	1.45	1.4	1.77	1.35	2.47	APHA (23rd Ed. 2017)10200 H
3.	Cell Count	No. x 10^3/L	105	63	86	102	102	102	145	86	125	96	120	127	APHA (23rd Ed. 2017)10200 F
4	Name of Group Number and name of group species of each group	--	*Odentella*	*Ceratium*	*Biddulphia*	*Ceratium*	*Thallassiosira*	*Surirella*	*Cyclotella*	*Pinnularia*	*Pinnularia*	*Coscinodiscus*	*Thalassiothrix*	*Odentella*	APHA (23rd Ed. 2017)10200 F
			Rhizosolenia	*Diploneis*	*Rhizosolenia*	*Diploneis*	*Melosira*	*Thalassiothrix*	*Pinnularia*	*Dinophysis*	*Thalassionema*	*Diploneis*	*Surirella*	*Rhizosolenia*	
			Coscinodiscus	*Odentella*	*Coscinodiscus*	*Odentella*	*Nitzschia*	*Navicula*	*Skeletonema*	*Rhizosolenia*	*Navicula*	*Rhizosolenia*	*Navicula*	*Coscinodiscus*	
			Grammatophora	*Grammatophora*	*Skeletonema*	*Grammatophora*	*Rhizosolenia*	*Skeletonema*	*Thallassiosira*	*Thallassiosira*	*Thallassiosira*	*Dinophysis*	*Thallassiosira*	*Grammatophora*	
			Thallassiosira	*Melosira*	*Thallassiosira*	*Melosira*	*Pleurosigma*	*Thallassiosira*	*Thalassionema*	*Coscinodiscus*	*Skeletonema*	*Thalassionema*	*Skeletonema*	*Thallassiosira*	
B	Zooplankton														
1	Abudance(Population)	noX103 / 100 m3	45		52		63		60		55		23		APHA (23rd Ed. 2017)10200 G
2	Name of Group Number and name of group species of each group		*Crustacean Larvae*		*Crustacean Larvae*		*Egg(Fish and Shrimps)*		*Egg(Fish and Shrimps)*		*Crustacean Larvae*		*Copepods nauplii*		
			Egg(Fish and Shrimps)		*Oikoplura*		*Oikoplura*		*Oikoplura*		*Egg(Fish and Shrimps)*		*Crustacean Larvae*		
			Copepods		*Copepods*		*Copepods nauplii*		*Copepods nauplii*		*Copepods*		*Oikoplura*		
			Crustacean		*Copepods nauplii*		*Crustacean*		*Crustacean*		*Crustacean*		*Bivalve Larvae*		
			Bivalve Larvae		*Bivalve Larvae*		*Bivalve Larvae*		*Bivalve Larvae*		*Bivalve Larvae*		*Oikoplura*		
3	Total Biomass	ml/100 m^3	17.41		16.35		17.59		16.88		16.45		14.25		

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Environment and Research Labs Pvt. Ltd.

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RESULTS OF MARINE WATER [M2 MOUTH OF BOCHA & NAVINAL CREEK - N 22°44'239" E 069°43'757"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
C	Microbiological														
1	Total Bacterial Count	CFU/ml	136		180		268		288		186		200		APHA 23rd Ed.2017,9215-C
2	Total Coliform	/100ml	43		35		41		31		25		25		APHA 23rd Ed.2017,9222-B
3	E.coli	/100ml	27		20		22		26		14		27		IS :15185:2016
4	Enterococcus	/100ml	13		11		13		19		10		12		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 23rd Ed.2017,9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

Mr. Nilesh Patel
Sr. Chemist

GUJARAT VAPI

Mr. Nitin Tandel
Technical Manager

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RESULTS OF SEDIMENT ANALYSIS [M2 MOUTH OF BOCHA & NAVINAL CREEK - N 22°44'239" E 069°43'757"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
1.	Organic Matter	%	0.59	0.48	0.41	0.44	0.48	0.44	IS: 2720 (Part 22):1972 RA.2015, Amds.1
2.	Phosphorus as P	µg/g	538.4	554.2	572.2	580.4	568.5	574.6	IS: 10158 :1982, RA.2009 Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
5.0	Heavy Metals								
5.1	Aluminum as Al	%	3.95	4.04	4.12	4.08	4.02	3.98	IS3025(Part 55)2003
5.2	Total Chromium as Cr+3	µg/g	153.4	159.4	155.1	164.2	155.2	159.7	EPA 3050B/7190 (Extraction &Analytical Method): 1986
5.3	Manganese as Mn	µg/g	602.4	642.2	671.8	694.2	648.6	660.8	EPA 3050B/7460 (Extraction &Analytical Method): 1986
5.4	Iron as Fe	%	4.05	4.15	4.12	4.09	4.02	4.08	EPA 3050B/7380 (Extraction &Analytical Method): 1986
5.5	Nickel as Ni	µg/g	49.21	41.03	40.38	41.21	42.36	41.62	EPA 3050B/7520 (Extraction &Analytical Method): 1986
5.6	Copper as Cu	µg/g	41..64	41.15	40.33	41.46	42.62	41.23	EPA 3050B /7210 (Extraction &Analytical Method):1986
5.7	Zinc as Zn	µg/g	88.02	102.2	110.4	131.2	134.4	140.6	EPA 3050B/7950 (Extraction &Analytical Method): 1986
5.8	Lead as Pb	µg/g	2.44	2.31	2.24	2.31	2.22	2.09	EPA 3050B /7420 (Extraction &Analytical Method):1986
5.9	Mercury as Hg	µg/g	BDL	BDL	BDL	BDL	BDL	BDL	EPA 7471B (Extraction &Analytical Method) :2007

Continue...

RESULTS OF SEDIMENT ANALYSIS [M2 MOUTH OF BOCHA & NAVINAL CREEK - N 22°44'239" E 069°43'757"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
D			Benthic Organisms						
1	Macrobenthos	--	*Gastropods*	*Decapod Larvae*	*Amphipods*	*Amphipods*	*Sipunculids*	*Decapods Larvae*	APHA (23rd Ed. 2017)10500 C
			Isopods	Isopods	*Polychates*	*Polychates*	*Decapods Larvae*	Isopods	
			Amphipods	*Amphipods*	*Isopods*	*Isopods*	*Polychates*	*Amphipods*	
			Sipunculids	*Sipunculids*	*Gastropods*	*Gastropods*	*Isopods*	*Sipunculids*	
2	MeioBenthos	--	*Polychates*	*Polychates*	*Decapods Larvae*	*Decapods Larvae*	*Turbellarians*	*Foraminiferan*	
			Herpectacoids	*Turbellarians*	*Herpectacoids*	*Herpectacoids*	*Herpectacoids*	*Herpectacoids*	
3	Population	no/m²	301	268	300	360	264	244	

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF MARINE WATER [M3 EAST OF BOCHAISLANOT DETECTED - N 22°46'530" E 069°41'690"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.14	8.01	8.27	8.11	8.21	8.06	8.11	7.96	8.14	7.88	8.16	7.97	IS 3025 (Part11)1983
2.	Temperature	°C	30.1	30	30.3	30.2	30.1	30	30	29.9	30.1	30	29.9	29.8	IS 3025 (Part 9)1984
3.	Total Suspended Solids	mg/L	102	94	110	86	96	74	104	88	114	94	102	86	APHA 23rd Ed.,2017,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	3.1	BDL	3	BDL	2.6	BDL	2.8	BDL	2.9	BDL	2.7	BDL	IS 3025(Part 44)1993Amd.01
5.	Dissolved Oxygen	mg/L	6.02	5.81	6.17	5.76	6.1	5.69	6.02	5.62	6.22	5.92	6.05	5.85	APHA 23rd Ed.,2017,4500-O, B
6.	Salinity	ppt	36.29	37.02	36.24	37.19	36.18	36.88	35.94	36.28	35.98	36.42	35.24	35.81	By Calculation
7.	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part39) 1991, Amd. 2
8.	Nitrate as NO_3	µmol/L	2.63	2.45	3.1	2.67	3.23	2.59	2.67	2.33	2.9	2.58	2.74	2.58	APHA 23rd Ed., 2017,4500 NO3-B
9.	Nitrite as NO_2	µmol/L	0.345	0.302	0.431	0.397	0.293	0.259	0.325	0.235	0.391	0.37	0.456	0.413	APHA 23rd Ed.,2017,4500NO_2B
10.	Ammonical Nitrogen as NH_3	µmol/L	2.93	2.8	3.1	2.67	3.97	3.84	2.67	2.58	3.32	3.23	3.42	3.32	APHA 23rd Ed., 2017,4500- NH3 B
11.	Phosphates as PO_4	µmol/L	0.43	BDL	0.82	0.6	0.56	BDL	1.37	1.26	1.26	1.05	1.58	1.47	APHA 23rd Ed.,2017,4500-P, D
12.	Total Nitrogen	µmol/L	5.905	5.552	6.631	5.737	7.493	6.689	5.665	5.145	6.611	6.18	6.616	6.313	APHA 23rd Ed., 2017,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
14.	Total Dissolved Solids	mg/L	36200	37120	36820	37622	36210	37330	35860	36540	35910	36572	36080	36640	APHA 23rd Ed.,2017, 2540- C
15.	COD	mg/L	16.05	8.02	31.97	19.98	36.29	24.19	16.21	8.1	20.22	12.13	15.95	7.98	APHA 23rd Ed.,2017, 5220-B

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RESULTS OF MARINE WATER [M3 EAST OF BOCHAISLANOT DETECTED - N 22°46'530" E 069°41'690"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
A			Phytoplankton												
1.	Chlorophyll	mg/m³	3.1	2.45	2.45	2.22	3.2	2.47	2.69	2.98	2.56	2.88	2.57	2.83	APHA (23rd Ed. 2017)10200 H
2.	Phaeophytin	mg/m³	2.35	0.96	1.65	1.24	1.56	1.44	1.12	1.63	1.32	1.99	1.65	1.52	APHA (23rd Ed. 2017)10200 H
3.	Cell Count	No. x 10^3/L	112	124	101	96	140	66	100	88	109	100	147	109	APHA (23rd Ed. 2017)10200 F
4	Name of Group Number and name of group species of each group	--	*Pinnularia*	*Pinnularia*	*Pinnularia*	*Pinnularia*	*Dinophysis*	*Rhizosolenia*	*Grammatophora*	*Odentella*	*Melosira*	*Pinnularia*	*Pinnularia*	*Pinnularia*	APHA (23rd Ed. 2017)10200 F
			Biddulphia	*Thalassionema*	*Dinophysis*	*Thalassionema*	*Pinnularia*	*Pinnularia*	*Rhizosolenia*	*Rhizosolenia*	*Pinnularia*	*Biddulphia*	*Biddulphia*	*Biddulphia*	
			Navicula	*Navicula*	*Rhizosolenia*	*Navicula*	*Thalassiothrix*	*Thalassiothrix*	*Nitzschia*	*Coscinodiscus*	*Skeletonema*	*Navicula*	*Navicula*	*Navicula*	
			Thallassiosira	*Thallassiosira*	*Thallassiosira*	*Thallassiosira*	*Grammatophora*	*Grammatophora*	*Thalassionema*	*Grammatophora*	*Rhizosolenia*	*Thallassiosira*	*Thallassiosira*	*Thallassiosira*	
			Skeletonema	*Skeletonema*	*Coscinodiscus*	*Skeletonema*	*Ceratium*	*Ceratium*	*Pleurosigma*	*Thallassiosira*	*Pleurosigma*	*Skeletonema*	*Skeletonema*	*Skeletonema*	
B			Zooplankton												
1	Abudance(Population)	noX103 / 100 m3	39		40		52		50		50		63		APHA (23rd Ed. 2017)10200 G
2	Name of Group Number and name of group species of each group		*Crustacean*		*Crustacean*		*Crustacean Larvae*		*Crustacean Larvae*		*Crustacean*		*Copepods*		
			Copepods nauplii		*Egg(Fish and Shrimps)*		*Egg(Fish and Shrimps)*		*Egg(Fish and Shrimps)*		*Copepods nauplii*		*Oikoplura*		
			Crustacean Larvae		*Crustacean Larvae*		*Copepods*		*Copepods*		*Crustacean Larvae*		*Crustacean Larvae*		
			Crustacean		*Crustacean*		*Crustacean*		*Crustacean*		*Crustacean*		*Crustacean*		
			Bivalve Larvae		*Bivalve Larvae*		*Bivalve Larvae*		*Bivalve Larvae*		*Bivalve Larvae*		*Bivalve Larvae*		
3	Total Biomass	ml/100 m³	17.45		15.24		15.78		17.45		15.26		15.69		

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CIN:U73100GJ2007PTC051463

RESULTS OF MARINE WATER [M3 EAST OF BOCHAISLANOT DETECTED - N 22°46'530" E 069°41'690"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
C			Microbiological												
1	Total Bacterial Count	CFU/ml	200		190		200		198		254		188		APHA 23rd Ed.2017,9215-C
2	Total Coliform	/100ml	45		20		31		30		42		25		APHA 23rd Ed.2017,9222-B
3	E.coli	/100ml	21		16		20		22		31		14		IS :15185:2016
4	Enterococcus	/100ml	16		10		12		8		20		13		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 23rd Ed.2017,9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF SEDIMENT ANALYSIS [M3 EAST OF BOCHAISLANOT DETECTED - N 22°46'530" E 069°41'690"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
1.	Organic Matter	%	0.52	0.54	0.41	0.44	0.52	0.48	IS: 2720 (Part 22):1972 RA.2015, Amds.1
2.	Phosphorus as P	µg/g	.582.2	574.5	562.2	574.1	566.6	570.4	IS: 10158 :1982, RA.2009 Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
5.0	Heavy Metals								
5.1	Aluminum as Al	%	3.84	3.91	3.95	3.98	4.06	4.01	IS3025(Part 55)2003
5.2	Total Chromium as Cr+3	µg/g	164.2	142.8	129.5	134.8	144.2	138.4	EPA 3050B/7190 (Extraction &Analytical Method): 1986
5.3	Manganese as Mn	µg/g	614.9	610.4	618.6	604.4	610.2	616.1	EPA 3050B/7460 (Extraction &Analytical Method): 1986
5.4	Iron as Fe	%	4.14	4.06	4.09	4.12	4.06	4.09	EPA 3050B/7380 (Extraction &Analytical Method): 1986
5.5	Nickel as Ni	µg/g	56.32	52.2	48.6	44.61	44.25	41.63	EPA 3050B/7520 (Extraction &Analytical Method): 1986
5.6	Copper as Cu	µg/g	36.82	37.14	35.2	36.84	35.54	36.12	EPA 3050B /7210 (Extraction &Analytical Method):1986
5.7	Zinc as Zn	µg/g	84.65	91.24	101.2	109.1	111.4	114.9	EPA 3050B/7950 (Extraction &Analytical Method): 1986
5.8	Lead as Pb	µg/g	2.81	2.76	2.65	2.44	2.25	2.39	EPA 3050B /7420 (Extraction &Analytical Method):1986
5.9	Mercury as Hg	µg/g	BDL	BDL	BDL	BDL	BDL	BDL	EPA 7471B (Extraction &Analytical Method) :2007

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RESULTS OF SEDIMENT ANALYSIS [M3 EAST OF BOCHAISLANOT DETECTED - N 22°46'530" E 069°41'690"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
D	Benthic Organisms								
1	Macrobenthos	--	Sipunculids	*Polychates*	*Sipunculids*	*Gastropods*	*Isopods*	*Polychates*	APHA (23rd Ed. 2017)10500 C
			Decapods Larvae	*Decapods Larvae*	*Polychates*	*Isopods*	*Polychates*	*Gastropods*	
			Amphipods	*Amphipods*	*Gastropods*	*Amphipods*	*Sipunculids*	*Isopods*	
			Isopods	*Isopods*	*Isopods*	*Sipunculids*	*Amphipods*	*Sipunculids*	
2	MeioBenthos	--	*Turbellarians*	*Foraminiferan*	*Herpectacoids*	*Polychates*	*Polychates*	*Herpectacoids*	
			Herpectacoids	*Herpectacoids*	*Foraminiferan*	*Herpectacoids*	*Foraminiferan*	*Polychates*	
3	Population	no/m²	355	355	347	258	368	298	

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF MARINE WATER [M4 JUNA BANOT DETECTEDAR N 22°47'577" E 069°43'620"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.21	8.06	8.26	8.09	8.24	8.01	8.16	8.07	8.14	8.02	8.11	7.96	IS 3025 (Part11)1983
2.	Temperature	°C	30.1	30	30.2	30.1	30.1	30	29.9	29.8	30	29.9	29.8.	29.7.	IS 3025 (Part 9)1984
3.	Total Suspended Solids	mg/L	128	114	142	118	126	108	112	106	138	116	132	104	APHA 23rd Ed.,2017,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	3	BDL	2.9	BDL	3.1	BDL	3.3	BDL	3.4	BDL	2.8	BDL	IS 3025(Part 4)1993Amd.01
5.	Dissolved Oxygen	mg/L	6.32	6.22	6.17	5.86	6.1	5.79	6.02	5.72	6.12	5.81	5.95	5.75	APHA 23rd Ed.,2017,4500-O, B
6.	Salinity	ppt	36.67	37.21	35.89	37.44	35.81	36.98	36.14	36.52	36.21	36.64	35.94	36.12	By Calculation
7.	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part39) 1991, Amd.2
8.	Nitrate as NO_3	µmol/L	3.19	2.33	3.71	3.1	3.45	2.8	2.49	2.32	3.39	3.06	3.06	2.74	APHA 23rd Ed., 2017,4500 NO3-B
9.	Nitrite as NO_2	µmol/L	0.388	0.345	0.517	0.422	0.345	0.276	0.259	0.215	0.326	0.283	0.435	0.391	APHA 23rd Ed.,2017,4500NO_2B
10.	Ammonical Nitrogen as NH_3	µmol/L	3.49	3.19	3.45	2.93	3.28	3.1	2.28	2.16	3.53	3.42	3.53	3.39	APHA 23rd Ed., 2017,4500- NH3 B
11.	Phosphates as PO_4	µmol/L	0.56	0.43	0.52	BDL	0.65	BDL	1.68	1.47	1.9	1.68	2.11	1.79	APHA 23rd Ed.,2017,4500-P, D
12.	Total Nitrogen	µmol/L	7.068	5.865	7.677	6.452	7.075	6.176	5.029	4.695	7.246	6.763	7.025	6.521	APHA 23rd Ed., 2017,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
14.	Total Dissolved Solids	mg/L	36480	37260	36944	37486	36860	37140	36150	36890	36168	36910	36180	37102	APHA 23rd Ed.,2017, 2540- C
15.	COD	mg/L	28.08	12.04	15.98	7.99	20.16	12.1	28.36	12.16	28.31	12.13	15.95	7.98	APHA 23rd Ed.,2017, 5220-B

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RESULTS OF MARINE WATER [M4 JUNA BANOT DETECTEDAR N 22°47'577" E 069°43'620"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
A	Phytoplankton														
1.	Chlorophyll	mg/m³	3.41	2.74	3.02	3.26	2.66	3.26	3	3.26	2.98	3.11	3.25	3.68	APHA (23rd Ed. 2017)10200 H
2.	Phaeophytin	mg/m³	1.25	1.45	1.87	1.33	1.74	1.45	1.63	2.03	2.01	1.88	1.44	1.56	APHA (23rd Ed. 2017)10200 H
3.	Cell Count	No. x 10^3/L	101	86	142	99	132	99	99	114	120	102	109	156	APHA (23rd Ed. 2017)10200 F
4	Name of Group Number and name of group species of each group	--	*Coscinodiscus*	*Melosira*	*Coscinodiscus*	*Melosira*	*Thalassiothrix*	*Coscinodiscus*	*Thalassiothrix*	*Pinnularia*	*Cyclotella*	*Navicula*	*Coscinodiscus*	*Coscinodiscus*	APHA (23rd Ed. 2017)10200 F
			Diploneis	*Pinnularia*	*Surirella*	*Pinnularia*	*Surirella*	*Diploneis*	*Surirella*	*Biddulphia*	*Pinnularia*	*Skeletonema*	*Diploneis*	*Diploneis*	
			Rhizosolenia	*Skeletonema*	*Rhizosolenia*	*Skeletonema*	*Navicula*	*Rhizosolenia*	*Navicula*	*Navicula*	*Skeletonema*	*Rhizosolenia*	*Rhizosolenia*	*Rhizosolenia*	
			Dinophysis	*Rhizosolenia*	*Pinnularia*	*Rhizosolenia*	*Thallassiosira*	*Dinophysis*	*Thallassiosira*	*Thallassiosira*	*Thallassiosira*	*Dinophysis*	*Dinophysis*	*Dinophysis*	
			Thalassionema	*Pleurosigma*	*Thalassionema*	*Pleurosigma*	*Skeletonema*	*Thalassionema*	*Skeletonema*	*Skeletonema*	*Thalassionema*	*Thalassionema*	*Thalassionema*	*Thalassionema*	

B	Zooplankton								
1	Abudance(Population)	noX103 / 100 m3	52	48	44	38	62	48	APHA (23rd Ed. 2017)10200 G
2	Name of Group Number and name of group species of each group		*Copepods nauplii*	*Copepods nauplii*	*Egg(Fish and Shrimps)*	*Egg(Fish and Shrimps)*	*Copepods nauplii*	*Egg(Fish and Shrimps)*	
			Crustacean Larvae	*Crustacean Larvae*	*Oikoplura*	*Oikoplura*	*Crustacean Larvae*	*Oikoplura*	
			Oikoplura	*Oikoplura*	*Copepods nauplii*	*Copepods nauplii*	*Oikoplura*	*Copepods nauplii*	
			Bivalve Larvae	*Bivalve Larvae*	*Crustacean*	*Crustacean*	*Bivalve Larvae*	*Crustacean*	
			Oikoplura	*Oikoplura*	*Bivalve Larvae*	*Bivalve Larvae*	*Oikoplura*	*Bivalve Larvae*	
3	Total Biomass	ml/100 m³	15.66	14.26	16.25	18.52	17.32	17.58	

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RESULTS OF MARINE WATER [M4 JUNA BANOT DETECTEDAR N 22°47'577" E 069°43'620"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM			
C			Microbiological												
1	Total Bacterial Count	CFU/ml	152		234		254		240		256		250		APHA 23rd Ed.2017,9215-C
2	Total Coliform	/100ml	28		32		47		35		50		48		APHA 23rd Ed.2017,9222-B
3	E.coli	/100ml	15		21		23		20		35		30		IS :15185:2016
4	Enterococcus	/100ml	10		10		16		12		24		21		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 23rd Ed.2017,9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF SEDIMENT ANALYSIS [M4 JUNA BANOT DETECTEDAR N 22°47'577" E 069°43'620"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
1.	Organic Matter	%	0.62	0.54	0.62	0.74	0.62	0.58	IS: 2720 (Part 22):1972 RA.2015, Amds.1
2.	Phosphorus as P	µg/g	555.1	574.4	582.7	680	658.5	642.6	IS: 10158 :1982, RA.2009 Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
5.0	Heavy Metals								
5.1	Aluminum as Al	%	4.01	4.12	4.08	4.16	4.05	3.96	IS3025(Part 55)2003
5.2	Total Chromium as Cr+3	µg/g	135	132.4	142.2	137.4	142.2	138.9	EPA 3050B/7190 (Extraction &Analytical Method): 1986
5.3	Manganese as Mn	µg/g	580.4	594.6	602.2	644	618	621.4	EPA 3050B/7460 (Extraction &Analytical Method): 1986
5.4	Iron as Fe	%	3.94	3.89	3.91	3.94	3.84	3.88	EPA 3050B/7380 (Extraction &Analytical Method): 1986
5.5	Nickel as Ni	µg/g	44.21	41.6	42.2	48.6	44.5	48.32	EPA 3050B/7520 (Extraction &Analytical Method): 1986
5.6	Copper as Cu	µg/g	50.54	45.62	41.6	38.9	387.6	38.25	EPA 3050B /7210 (Extraction &Analytical Method):1986
5.7	Zinc as Zn	µg/g	74.5	84.2	92.4	102.2	114.2	118.2	EPA 3050B/7950 (Extraction &Analytical Method): 1986
5.8	Lead as Pb	µg/g	2.22	2.38	2.24	2.61	2.51	2.41	EPA 3050B /7420 (Extraction &Analytical Method):1986
5.9	Mercury as Hg	µg/g	BDL	BDL	BDL	BDL	BDL	BDL	EPA 7471B (Extraction &Analytical Method) :2007

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RESULTS OF SEDIMENT ANALYSIS [M4 JUNA BANOT DETECTEDAR N 22°47'577" E 069°43'620"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
D	Benthic Organisms								
1	Macrobenthos	--	*Isopods*	*Amphipods*	*Foraminiferan*	*Sipunculids*	*Foraminiferan*	Foraminiferan	APHA (23rd Ed. 2017)10500 C
			Polychates	*Gastropods*	*Decapods Larvae*	*Decapods Larvae*	*Decapods Larvae*	*Gastropods*	
			Sipunculids	*Sipunculids*	*Amphipods*	*Amphipods*	*Amphipods*	*Isopods*	
			Amphipods	*Amphipods*	*Polychates*	*Isopods*	*Polychates*	*Sipunculids*	
2	MeioBenthos	--	*Polychates*	*Polychates*	*Turbellarians*	*Turbellarians*	Turbellarians	*Herpectacoids*	
			Foraminiferan	*Foraminiferan*	*Foraminiferan*	*Herpectacoids*	*Foraminiferan*	*Polychates*	
3	Population	no/m²	300	289	387	288	342	360	

Mr. Nilesh Patel
Sr. Chemist

GUJARAT VAPI

Mr. Nitin Tandel
Technical Manager

RESULTS OF MARINE WATER [M5 TOWARDS WESTERN SIDE OF EAST PORT – N 22°46'041" E 069°47'296"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.16	7.94	8.08	7.91	7.99	7.91	7.96	7.88	8.12	7.94	8.18	8.05	IS 3025 (Part11)1983
2.	Temperature	°C	30.1	30	30.3	30.2	30.1	30	30	29.9	29.9	28.8	29.8	29.7	IS 3025 (Part 9)1984
3.	Total Suspended Solids	mg/L	114	94	130	112	116	76	98	72	108	84	96	76	APHA 23rd Ed.,2017,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	2.9	BDL	2.8	BDL	2.2	BDL	3.5	BDL	3.2	BDL	2.9	BDL	IS 3025(Part 44)1993Amd.01
5.	Dissolved Oxygen	mg/L	6.32	6.12	6.07	5.65	5.99	5.59	5.92	5.52	6.22	5.81	6.05	5.75	APHA 23rd Ed.,2017,4500-O, B
6.	Salinity	ppt	36.85	37.11	35.66	37.62	35.62	37.32	35.68	36.24	35.78	36.46	35.12	35.84	By Calculation
7.	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part39)1991, Amd.2
8.	Nitrate as NO_3	µmol/L	2.63	2.46	2.8	2.37	2.5	2.41	2.37	2.16	2.74	2.42	2.9	2.58	APHA 23rd Ed., 2017,4500 NO3-B
9.	Nitrite as NO_2	µmol/L	0.388	0.302	0.431	0.336	0.448	0.431	0.207	0.189	0.261	0.217	0.326	0.304	APHA 23rd Ed.,2017,4500NO_2B
10.	Ammonical Nitrogen as NH_3	µmol/L	3.23	3.1	3.79	2.93	3.36	3.28	2.75	2.62	3.74	3.59	3.59	3.39	APHA 23rd Ed., 2017,4500- NH3 B
11.	Phosphates as PO_4	µmol/L	0.86	0.65	1.16	0.82	BDL	BDL	BDL	BDL	1.16	1.05	1.68	1.47	APHA 23rd Ed.,2017,4500-P, D
12.	Total Nitrogen	µmol/L	6.248	5.862	7.021	5.636	6.308	6.121	5.327	4.969	6.741	6.227	6.816	6.274	APHA 23rd Ed., 2017,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
14.	Total Dissolved Solids	mg/L	36650	37100	36990	37668	36670	37450	36310	37108	36324	37164	35940	36720	APHA 23rd Ed.,2017, 2540- C
15.	COD	mg/L	24.07	BDL	23.98	11.99	28.22	16.13	24.31	16.21	28.31	16.18	23.93	11.96	APHA 23rd Ed.,2017, 5220-B

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RESULTS OF MARINE WATER [M5 TOWARDS WESTERN SIDE OF EAST PORT – N 22°46'041" E 069°47'296"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
A			Phytoplankton												
1.	Chlorophyll	mg/m³	2.69	2.36	3.12	2.66	3.62	2.74	3.44	3.06	3.01	3.12	3.47	2.96	APHA (23rd Ed. 2017)10200 H
2.	Phaeophytin	mg/m³	1.34	1.85	1.23	1.63	2.01	1.25	1.85	1.98	1.57	1.87	1.63	1.75	APHA (23rd Ed. 2017)10200 H
3.	Cell Count	No. x 10³/L	123	140	111	127	156	142	132	133	88	111	100	109	APHA (23rd Ed. 2017)10200 F
4	Name of Group Number and name of group species of each group	--	*Pinnularia*	*Cyclotella*	*Rhizosolenia*	*Rhizosolenia*	*Cyclotella*	*Diploneis*	*Navicula*	*Coscinodiscus*	*Grammatophora*	*Pinnularia*	*Diploneis*	*Ceratium*	APHA (23rd Ed. 2017)10200 F
			Biddulphia	*Pinnularia*	*Biddulphia*	*Pinnularia*	*Pinnularia*	*Rhizosolenia*	*Fragillaria*	*Diploneis*	*Rhizosolenia*	*Biddulphia*	*Rhizosolenia*	*Diploneis*	
			Navicula	*Skeletonema*	*Thalassiothrix*	*Melosira*	*Skeletonema*	*Nitzschia*	*Thalassiothrix*	*Rhizosolenia*	*Nitzschia*	*Navicula*	*Nitzschia*	*Odentella*	
			Thallassiosira	*Thallassiosira*	*Thallassiosira*	*Thallassiosira*	*Thallassiosira*	*Thalassiothrix*	*Grammatophora*	*Dinophysis*	*Thalassionema*	*Thallassiosira*	*Cyclotella*	*Grammatophora*	
			Skeletonema	*Thalassionema*	*Coscinodiscus*	*Grammatophora*	*Thalassionema*	*Pleurosigma*	*Surirella*	*Thalassionema*	*Pleurosigma*	*Skeletonema*	*Pleurosigma*	*Melosira*	
B			Zooplankton												
1	Abudance(Population)	noX103 / 100 m3	51		38		50		41		54		52		APHA (23rd Ed. 2017)10200 G
2	Name of Group Number and name of group species of each group		*Egg(Fish and Shrimps)*		*Copepods nauplii*		*Oikoplura*		*Oikoplura*		*Crustacean Larvae*		*Crustacean Larvae*		
			Copepods		*Copepods*		*Copepods nauplii*		*Copepods nauplii*		*Egg(Fish and Shrimps)*		*Decapoda*		
			Crustacean Larvae		*Crustacean Larvae*		*Crustacean Larvae*		*Crustacean Larvae*		*Copepods*		*Copepods*		
			Oikoplura		*Oikoplura*		*Crustacean*		*Crustacean*		*Crustacean*		*Crustacean*		
			Bivalve Larvae		*Bivalve Larvae*		*Bivalve Larvae*		*Bivalve Larvae*		*Bivalve Larvae*		*Bivalve Larvae*		
3	Total Biomass	ml/100 m³	14.56		13.25		14.25		16.36		15.78		14.6		

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RESULTS OF MARINE WATER [M5 TOWARDS WESTERN SIDE OF EAST PORT – N 22°46'041" E 069°47'296"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM			
C			Microbiological												
1	Total Bacterial Count	CFU/ml	190		216		256		254		178		196		APHA 23rd Ed.2017,9215-C
2	Total Coliform	/100ml	36		30		65		70		56		63		APHA 23rd Ed.2017,9222-B
3	E.coli	/100ml	27		17		41		45		49		42		IS :15185:2016
4	Enterococcus	/100ml	15		10		19		21		29		22		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 23rd Ed.2017,9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

White House
Near G.I.D.C. Office, Char Rasta,
Vapi - 396 195. Gujarat, India.
Phone : +91 260 2433966 / 2425610
Email : response@uerl.in Website : www.uerl.in

RESULTS OF SEDIMENT ANALYSIS [M5 TOWARDS WESTERN SIDE OF EAST PORT – N 22°46'041" E 069°47'296"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23 SEDIMENT	May-23 SEDIMENT	Jun-23 SEDIMENT	Jul-23 SEDIMENT	Aug-23 SEDIMENT	Sep-23 SEDIMENT	TEST METHOD
1.	Organic Matter	%	0.61	0.52	0.49	0.46	0.58	0.55	IS: 2720 (Part 22):1972 RA.2015, Amds.1
2.	Phosphorus as P	µg/g	537.4	546.3	551.4	542.6	564.2	542.3	IS: 10158 :1982, RA.2009 Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
5.0	Heavy Metals								
5.1	Aluminum as Al	%	4.04	4.11	4.12	4.08	3.92	3.95	IS3025(Part 55)2003
5.2	Total Chromium as Cr+3	µg/g	91.8	102.4	112.1	118.5	127.5	130.2	EPA 3050B/7190 (Extraction &Analytical Method): 1986
5.3	Manganese as Mn	µg/g	534.1	554.2	560.8	574.2	580.5	602.2	EPA 3050B/7460 (Extraction &Analytical Method): 1986
5.4	Iron as Fe	%	4.09	3.98	4.02	3.97	4.08	4.11	EPA 3050B/7380 (Extraction &Analytical Method): 1986
5.5	Nickel as Ni	µg/g	42.64	44.38	42.31	44.12	45.38	45.31	EPA 3050B/7520 (Extraction &Analytical Method): 1986
5.6	Copper as Cu	µg/g	49.06	42.64	43.35	48.64	51.24	48.65	EPA 3050B /7210 (Extraction &Analytical Method):1986
5.7	Zinc as Zn	µg/g	88.47	95.34	101.2	104.2	111.6	114.8	EPA 3050B/7950 (Extraction &Analytical Method): 1986
5.8	Lead as Pb	µg/g	2.38	2.44	2.49	2.62	2.54	2.38	EPA 3050B /7420 (Extraction &Analytical Method):1986
5.9	Mercury as Hg	µg/g	BDL	BDL	BDL	BDL	BDL	BDL	EPA 7471B (Extraction &Analytical Method) :2007

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RESULTS OF SEDIMENT ANALYSIS [M5 TOWARDS WESTERN SIDE OF EAST PORT – N 22°46'041" E 069°47'296"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
D			Benthic Organisms						
1	Macrobenthos	--	*Amphipods*	*Amphipods*	*Foraminiferan*	*Isopods*	*Foraminiferan*	*Amphipods*	APHA (23rd Ed. 2017)10500 C
			Decapod Larvae	*Decapod Larvae*	*Gastropods*	*Polychates*	*Gastropods*	*Polychates*	
			Isopods	*Isopods*	*Isopods*	*Sipunculids*	*Isopods*	*Isopods*	
			Gastropods	*Gastropods*	*Sipunculids*	*Amphipods*	*Sipunculids*	*Gastropods*	
2	MeioBenthos	--	Foraminiferan	Foraminiferan	Herpectacoids	Polychates	Herpectacoids	*Decapods Larvae*	
			Herpectacoids	*Turbellarians*	*Polychates*	*Foraminiferan*	*Polychates*	*Herpectacoids*	
3	Population	no/m^2	320	288	257	308	264	308	

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF MARINE WATER [M7 EAST PORT N 22°47'120" E 069°47'110"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.06	7.86	8.14	7.92	8.03	7.94	7.97	7.93	7.95	7.86	8.07	7.91	IS 3025 (Part11)1983
2.	Temperature	°C	30.2	30.1	30.3	30.2	30	29.9	29.9	29.8	29.9	29.8	29.8	29.7	IS 3025 (Part 9)1984
3.	Total Suspended Solids	mg/L	150	122	134	116	124	102	116	104	134	116	128	102	APHA 23rd Ed.,2017,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	2.8	BDL	3.3	BDL	2.7	BDL	3.8	BDL	3.5	BDL	2.8	BDL	IS 3025(Part 44)1993Amd.01
5.	Dissolved Oxygen	mg/L	6.22	6.02	6.37	5.86	6.3	5.79	6.22	5.72	6.32	5.81	5.95	5.75	APHA 23rd Ed.,2017,4500-O, B
6.	Salinity	ppt	36.66	37.06	36.12	37.84	35.89	37.25	35.77	36.25	35.84	36.38	35.31	35.81	By Calculation
7.	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part39)1991, Amd. 2
8.	Nitrate as NO_3	µmol/L	2.54	2.37	2.8	2.67	2.67	2.33	3.36	3.02	4.19	3.55	3.23	2.9	APHA 23rd Ed., 2017,4500 NO3-B
9.	Nitrite as NO_2	µmol/L	0.345	0.302	0.371	0.336	0.325	0.235	0.632	0.31	0.435	0.37	0.609	0.543	APHA 23rd Ed.,2017,4500NO_2B
10.	Ammonical Nitrogen as NH_3	µmol/L	3.32	3.23	4.31	3.45	2.67	2.58	3.84	3.62	3.95	3.69	3.48	3.32	APHA 23rd Ed., 2017,4500- NH3 B
11.	Phosphates as PO_4	µmol/L	1.03	0.86	1.08	0.95	0.91	0.73	1.9	1.68	2.11	1.79	2.42	2.32	APHA 23rd Ed.,2017,4500-P, D
12.	Total Nitrogen	µmol/L	6.205	5.902	7.481	6.456	5.665	5.145	7.832	6.95	8.575	7.61	7.319	6.763	APHA 23rd Ed., 2017,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
14.	Total Dissolved Solids	mg/L	37460	37780	37532	38060	37110	37680	36840	37060	36766	36952	36420	37070	APHA 23rd Ed.,2017, 2540- C
15.	COD	mg/L	20.06	4.01	39.96	19.98	28.22	16.13	20.26	4.05	24.26	12.13	11.96	3.99	APHA 23rd Ed.,2017, 5220-B

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RESULTS OF MARINE WATER [M7 EAST PORT N 22°47'120" E 069°47'110"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
A			Phytoplankton												
1.	Chlorophyll	mg/m³	2.87	2.87	2.26	3	2.55	3.21	3.21	3.65	2.47	3.05	3.02	3.48	APHA (23rd Ed. 2017)10200 H
2.	Phaeophytin	mg/m³	0.74	1.75	0.74	2.03	1.31	2.14	1.33	2.36	1.09	2.89	1.36	2.59	APHA (23rd Ed. 2017)10200 H
3.	Cell Count	No. x 10^3/L	121	126	145	117	187	108	150	145	91	158	96	168	APHA (23rd Ed. 2017)10200 F
4	Name of Group Number and name of group species of each group	--	*Coscinodiscus*	*Grammatophora*	*Coscinodiscus*	*Grammatophora*	*Coscinodiscus*	*Nitzschia*	*Ceratium*	*Thalassiothrix*	*Ceratium*	*Coscinodiscus*	*Nitzschia*	*Fragillaria*	APHA (23rd Ed. 2017)10200 F
			Diploneis	*Rhizosolenia*	*Diploneis*	*Rhizosolenia*	*Diploneis*	*Grammatophora*	*Diploneis*	*Surirella*	*Diploneis*	*Diploneis*	*Pinnularia*	*Thalassionema*	
			Rhizosolenia	*Nitzschia*	*Rhizosolenia*	*Nitzschia*	*Rhizosolenia*	*Diploneis*	*Odentella*	*Navicula*	*Odentella*	*Rhizosolenia*	*Odontella*	*Navicula*	
			Dinophysis	*Thalassionema*	*Dinophysis*	*Thalassionema*	*Dinophysis*	*Thalassiothrix*	*Grammatophora*	*Thallassiosira*	*Grammatophora*	*Dinophysis*	*Dinophysis*	*Thallassiosira*	
			Thalassionema	*Pleurosigma*	*Skeletonema*	*Pleurosigma*	*Thalassionema*	*Pleurosigma*	*Melosira*	*Skeletonema*	*Melosira*	*Thalassionema*	*Surirella*	*Skeletonema*	

B			Zooplankton												
1	Abudance(Population)	noX103 / 100 m3	40		47		55		50		39		47		APHA (23rd Ed. 2017)10200 G
2	Name of Group Number and name of group species of each group		*Oikoplura*		*Oikoplura*		*Decapoda*		*Decapoda*		*Egg(Fish and Shrimps)*		*Nitzschia*		
			Copepods nauplii		*Copepods nauplii*		*Copepods*		*Copepods*		*Oikoplura*		*Pinnularia*		
			Crustacean Larvae		*Crustacean Larvae*		*Crustacean Larvae*		*Crustacean Larvae*		*Copepods nauplii*		*Odontella*		
			Crustacean		*Egg(Fish and Shrimps)*		*Crustacean*		*Crustacean*		*Crustacean*		*Dinophysis*		
			Bivalve Larvae		*Crustacean*		*Oikoplura*		*Oikoplura*		*Bivalve Larvae*		*Surirella*		
3	Total Biomass	ml/100 m³	15.32		16.41		17.45		15.42		16.35		15.68		

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UniStar
Environment and Research Labs Pvt. Ltd.

White House
Near G.I.D.C. Office, Char Rasta,
Vapi - 396 195. Gujarat, India.
Phone : +91 260 2433966 / 2425610
Email : response@uerl.in Website : www.uerl.in

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RESULTS OF MARINE WATER [M7 EAST PORT N 22°47'120" E 069°47'110"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM			
C			Microbiological												
1	Total Bacterial Count	CFU/ml	180		260		198		202		180		166		APHA 23rd Ed.2017,9215-C
2	Total Coliform	/100ml	42		40		52		49		45		40		APHA 23rd Ed.2017,9222-B
3	E.coli	/100ml	21		31		22		25		20		29		IS :15185:2016
4	Enterococcus	/100ml	20		22		14		19		18		22		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 23rd Ed.2017,9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
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RESULTS OF MARINE WATER [M8 RIGHT SIDE OF BOCHA CREEK N 22°45'987" E 069°43'119"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.19	7.86	8.27	8.14	8.24	8.15	8.12	8.02	8.17	8.08	8.24	8.06	IS 3025 (Part11)1983
2.	Temperature	°C	30.1	30.1	30.3	30.2	30.2	30.1	30	29.9	29.9	28.8	29.8	29.7	IS 3025 (Part 9)1984
3.	Total Suspended Solids	mg/L	104	122	116	106	112	92	118	94	104	80	94	84	APHA 23rd Ed.,2017,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	2.5	BDL	3.4	BDL	2.6	BDL	2.9	BDL	3.2	BDL	2.7	BDL	IS 3025(Part 44)1993Amd.01
5.	Dissolved Oxygen	mg/L	6.12	6.02	6.27	5.86	6.2	5.79	6.12	5.72	6.22	5.81	5.95	5.75	APHA 23rd Ed.,2017,4500-O, B
6.	Salinity	ppt	36.04	37.06	36.24	37.53	36.32	37.11	36.06	36.47	36.24	36.58	35.61	36.02	By Calculation
7.	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part39) 1991, Amd. 2
8.	Nitrate as NO_3	µmol/L	2.97	2.37	4.05	3.58	3.23	2.59	3.45	2.8	4.03	3.55	3.06	2.74	APHA 23rd Ed., 2017,4500 NO3-B
9.	Nitrite as NO_2	µmol/L	0.431	0.302	0.422	0.336	0.413	0.379	0.345	0.276	0.391	0.326	0.456	0.391	APHA 23rd Ed.,2017,4500NO_2B
10.	Ammonical Nitrogen as NH_3	µmol/L	3.19	3.23	3.1	2.93	3.66	2.93	3.28	3.1	4.06	3.8	3.39	3.26	APHA 23rd Ed., 2017,4500- NH3 B
11.	Phosphates as PO_4	µmol/L	0.52	0.86	BDL	BDL	0.65	BDL	1.47	1.26	1.68	1.58	2	1.79	APHA 23rd Ed.,2017,4500-P, D
12.	Total Nitrogen	µmol/L	6.591	5.902	7.572	6.846	7.303	5.899	7.075	6.176	8.481	7.676	6.906	6.391	APHA 23rd Ed., 2017,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
14.	Total Dissolved Solids	mg/L	36800	37780	37224	38108	36340	37460	36090	36990	35950	36760	36144	36800	APHA 23rd Ed.,2017, 2540- C
15.	COD	mg/L	20.06	4.01	31.97	11.99	44.35	24.19	20.26	4.05	28.31	8.09	7.98	3.99	APHA 23rd Ed.,2017, 5220-B

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RESULTS OF MARINE WATER [M8 RIGHT SIDE OF BOCHA CREEK N 22°45'987" E 069°43'119"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
A			Phytoplankton												
1.	Chlorophyll	mg/m³	3.25	2.47	3.25	2.55	3.25	2.36	2.36	3.05	2.77	2.48	3.05	2.47	APHA (23rd Ed. 2017)10200 H
2.	Phaeophytin	mg/m³	1.12	0.96	1.36	1.01	1.22	1.45	0.85	2.11	1.07	2.18	1.87	1.99	APHA (23rd Ed. 2017)10200 H
3.	Cell Count	No. x 10^3/L	104	67	111	112	128	144	80	156	87	79	106	98	APHA (23rd Ed. 2017)10200 F
4	Name of Group Number and name of group species of each group	--	*Thalassiothrix*	*Skeletonema*	*Diploneis*	*Nitzschia*	*Pinnularia*	*Odentella*	*Pinnularia*	*Navicula*	*Odentella*	*Pinnularia*	*Odentella*	*Grammatophora*	APHA (23rd Ed. 2017)10200 F
			Surirella	*Grammatophora*	*Melosira*	*Grammatophora*	*Biddulphia*	*Rhizosolenia*	*Thalassionema*	*Skeletonema*	*Rhizosolenia*	*Biddulphia*	*Rhizosolenia*	*Rhizosolenia*	
			Navicula	*Nitzschia*	*Navicula*	*Odentella*	*Navicula*	*Coscinodiscus*	*Navicula*	*Rhizosolenia*	*Coscinodiscus*	*Navicula*	*Coscinodiscus*	*Nitzschia*	
			Thallassiosira	*Thalassiothrix*	*Rhizosolenia*	*Thalassiothrix*	*Thallassiosira*	*Grammatophora*	*Thallassiosira*	*Dinophysis*	*Grammatophora*	*Thallassiosira*	*Grammatophora*	*Thalassionema*	
			Skeletonema	*Pleurosigma*	*Skeletonema*	*Melosira*	*Skeletonema*	*Thallassiosira*	*Skeletonema*	*Thalassionema*	*Thallassiosira*	*Skeletonema*	*Thallassiosira*	*Pleurosigma*	
B			Zooplankton												
1	Abudance(Population)	noX103 / 100 m3	36		51		39		43		41		69		APHA (23rd Ed. 2017)10200 G
2	Name of Group Number and name of group species of each group		*Crustacean Larvae*		*Crustacean Larvae*		*Egg(Fish and Shrimps)*		*Egg(Fish and Shrimps)*		*Egg(Fish and Shrimps)*		*Copepods nauplii*		
			Decapoda		*Oikoplura*		*Oikoplura*		*Oikoplura*		*Oikoplura*		*Crustacean Larvae*		
			Copepods		*Copepods*		*Copepods nauplii*		*Copepods nauplii*		*Copepods nauplii*		*Oikoplura*		
			Crustacean		*Crustacean*		*Crustacean*		*Crustacean*		*Crustacean*		*Bivalve Larvae*		
			Bivalve Larvae		*Bivalve Larvae*		*Bivalve Larvae*		*Bivalve Larvae*		*Bivalve Larvae*		*Oikoplura*		
3	Total Biomass	ml/100 m³	16.32		17.36		14.66		17.52		15.86		17.36		

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CIN:U73100GJ2007PTC051463

White House
Near G.I.D.C. Office, Char Rasta,
Vapi - 396 195. Gujarat, India.
Phone : +91 260 2433966 / 2425610
Email : response@uerl.in Website : www.uerl.in

RESULTS OF MARINE WATER [M8 RIGHT SIDE OF BOCHA CREEK N 22°45'987" E 069°43'119"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM			
C			Microbiological												
1	Total Bacterial Count	CFU/ml	262		148		166		268		220		190		APHA 23rd Ed.2017,9215-C
2	Total Coliform	/100ml	28		20		35		35		29		31		APHA 23rd Ed.2017,9222-B
3	E.coli	/100ml	20		8		15		15		16		26		IS :15185:2016
4	Enterococcus	/100ml	12		6		11		11		8		10		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 23rd Ed.2017,9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF SEDIMENT ANALYSIS [M8 RIGHT SIDE OF BOCHA CREEK N 22°45'987" E 069°43'119"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
1.	Organic Matter	%	0.52	0.57	0.48	0.51	0.46	0.41	IS: 2720 (Part 22):1972 RA.2015, Amds.1
2.	Phosphorus as P	µg/g	538	544.2	562.2	546.4	580.3	574.2	IS: 10158 :1982, RA.2009 Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
5.0	Heavy Metals								
5.1	Aluminum as Al	%	3.81	3.92	3.96	3.89	3.95	4.03	IS3025(Part 55)2003
5.2	Total Chromium as Cr+3	µg/g	102.2	114.3	116.2	112.4	118.6	122.2	EPA 3050B/7190 (Extraction &Analytical Method): 1986
5.3	Manganese as Mn	µg/g	564.2	580.4	587.2	604.5	590.4	602.8	EPA 3050B/7460 (Extraction &Analytical Method): 1986
5.4	Iron as Fe	%	4.02	3.86	3.89	3.91	3.94	4.06	EPA 3050B/7380 (Extraction &Analytical Method): 1986
5.5	Nickel as Ni	µg/g	44.61	46.57	39.8	40.24	41.25	42.88	EPA 3050B/7520 (Extraction &Analytical Method): 1986
5.6	Copper as Cu	µg/g	43.35	40.36	42.61	44.25	42.6	44.68	EPA 3050B /7210 (Extraction &Analytical Method):1986
5.7	Zinc as Zn	µg/g	103.3	105.7	110.4	124.1	138.4	142	EPA 3050B/7950 (Extraction &Analytical Method): 1986
5.8	Lead as Pb	µg/g	2.61	2.56	2.31	2.37	2.44	2.38	EPA 3050B /7420 (Extraction &Analytical Method):1986
5.9	Mercury as Hg	µg/g	BDL	BDL	BDL	BDL	BDL	BDL	EPA 7471B (Extraction &Analytical Method) :2007

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UniStar
Environment and Research Labs Pvt. Ltd.

White House
Near G.I.D.C. Office, Char Rasta,
Vapi - 396 195. Gujarat, India.
Phone : +91 260 2433966 / 2425610
Email : response@uerl.in Website : www.uerl.in

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RESULTS OF SEDIMENT ANALYSIS [M8 RIGHT SIDE OF BOCHA CREEK N 22°45'987" E 069°43'119"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
D			Benthic Organisms						
1	Macrobenthos	--	*Sipunculids*	*Decapod Larvae*	*Sipunculids*	*Decapod Larvae*	*Polychates*	*Polychates*	APHA (23rd Ed. 2017)10500 C
			Polychates	*Polychates*	*Polychates*	*Isopods*	*Decapods Larvae*	*Decapods Larvae*	
			Gastropods	*Gastropods*	*Gastropods*	*Amphipods*	*Isopods*	*Isopods*	
			Isopods	*Isopods*	*Isopods*	*Sipunculids*	*Sipunculids*	*Sipunculids*	
2	MeioBenthos	--	*Foraminiferan*	*Foraminiferan*	*Foraminiferan*	*Polychates*	*Herpectacoids*	*Herpectacoids*	
			Polychates	*Turbellarians*	Turbellarians	Turbellarians	Turbellarians	*Turbellarians*	
3	Population	no/m²	260	303	320	358	240	290	

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

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RESULTS OF MARINE WATER [M11 MPT T1 JETTY N 22°42'278" E 069°43'450"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.19	7.98	8.18	7.96	8.17	7.98	8.14	7.97	8.16	8.01	8.17	8.05	IS 3025 (Part11)1983
2.	Temperature	°C	30.2	30.1	30.3	30.2	30.1	30	29.9	29.8	29.8	29.7	29.8	29.7	IS 3025 (Part 9)1984
3.	Total Suspended Solids	mg/L	124	108	118	92	106	86	114	88	154	128	142	118	APHA 23rd Ed.,2017,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	3.4	BDL	3.5	BDL	3.2	BDL	2.7	BDL	3.3	BDL	2.6	BDL	IS 3025(Part 44)1993Amd.01
5.	Dissolved Oxygen	mg/L	6.12	6.02	6.07	5.76	5.99	5.69	5.92	5.62	6.12	5.81	5.85	5.75	APHA 23rd Ed.,2017,4500-O, B
6.	Salinity	ppt	35.88	36.3	35.52	37.23	35.49	36.87	36.34	36.88	36.35	36.94	35.41	35.97	By Calculation
7.	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part39) 1991, Amd. 2
8.	Nitrate as NO_3	µmol/L	2.63	2.37	3.32	2.97	2.84	2.59	2.93	2.76	3.71	3.23	2.9	2.74	APHA 23rd Ed., 2017,4500 NO3-B
9.	Nitrite as NO_2	µmol/L	0.302	0.19	0.336	0.267	0.474	0.31	0.3	0.235	0.304	0.283	0.37	0.348	APHA 23rd Ed.,2017,4500NO_2B
10.	Ammonical Nitrogen as NH_3	µmol/L	2.93	2.8	3.1	2.67	2.41	1.89	2.54	2.45	3.59	3.42	3.42	3.23	APHA 23rd Ed., 2017,4500- NH3 B
11.	Phosphates as PO_4	µmol/L	0.47	BDL	0.6	0.52	0.78	BDL	1.79	1.47	2	1.68	2.32	2.11	APHA 23rd Ed.,2017,4500-P, D
12.	Total Nitrogen	µmol/L	5.862	5.36	6.756	5.907	5.724	4.79	5.77	5.445	7.604	6.933	6.69	6.318	APHA 23rd Ed., 2017,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
14.	Total Dissolved Solids	mg/L	37010	37420	37640	38020	37210	37640	36970	37124	36744	37210	36350	36988	APHA 23rd Ed.,2017, 2540- C
15.	COD	mg/L	16.05	8.02	23.98	11.99	36.29	16.13	16.21	8.1	12.13	4.04	11.96	BDL	APHA 23rd Ed.,2017, 5220-B

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RESULTS OF MARINE WATER [M11 MPT T1 JETTY N 22°42'278" E 069°43'450"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
A			Phytoplankton												
1.	Chlorophyll	mg/m³	3.2	2.41	2.99	3.21	3.06	2.86	2.2	1.66	2.87	2.09	2.98	2.69	APHA (23rd Ed. 2017)10200 H
2.	Phaeophytin	mg/m³	2.23	2.14	1.45	2.33	1.45	1.34	1.74	0.9	1.84	1.06	1.12	1.45	APHA (23rd Ed. 2017)10200 H
3.	Cell Count	No. x 10³/L	100	104	98	58	124	100	109	94	110	63	111	109	APHA (23rd Ed. 2017)10200 F
4	Name of Group Number and name of group species of each group	--	*Navicula*	*Ceratium*	*Navicula*	*Ceratium*	*Navicula*	*Skeletonema*	*Rhizosolenia*	*Melosira*	*Skeletonema*	*Coscinodiscus*	*Dinophysis*	*Diploneis*	APHA (23rd Ed. 2017)10200 F
			Skeletonema	*Melosira*	*Skeletonema*	*Melosira*	*Skeletonema*	*Grammatophora*	*Pinnularia*	*Pinnularia*	*Grammatophora*	*Diploneis*	*Pinnularia*	*Rhizosolenia*	
			Rhizosolenia	*Odentella*	*Rhizosolenia*	*Odentella*	*Rhizosolenia*	*Nitzschia*	*Thalassiothrix*	*Skeletonema*	*Nitzschia*	*Rhizosolenia*	*Thalassiothrix*	*Nitzschia*	
			Dinophysis	*Dinophysis*	*Dinophysis*	*Dinophysis*	*Dinophysis*	*Thalassiothrix*	*Grammatophora*	*Thallassiosira*	*Thalassiothrix*	*Dinophysis*	*Grammatophora*	*Cyclotella*	
			Thalassionema	*Pleurosigma*	*Thalassionema*	*Fragillaria*	*Thalassionema*	*Pleurosigma*	*Ceratium*	*Thalassionema*	*Pleurosigma*	*Thalassionema*	*Ceratium*	*Pleurosigma*	

B			Zooplankton												
1	Abudance(Population)	noX103 / 100 m3	47		50		47		39		56		38		APHA (23rd Ed. 2017)10200 G
2	Name of Group Number and name of group species of each group		*Decapoda*		*Decapoda*		*Crustacean Larvae*		*Crustacean Larvae*		*Decapoda*		*Egg(Fish and Shrimps)*		
			Copepods		*Egg(Fish and Shrimps)*		*Egg(Fish and Shrimps)*		*Egg(Fish and Shrimps)*		*Copepods*		*Oikoplura*		
			Crustacean Larvae		*Crustacean Larvae*		*Copepods*		*Copepods*		*Crustacean Larvae*		*Copepods nauplii*		
			Crustacean		*Crustacean*		*Crustacean*		*Crustacean*		*Crustacean*		*Crustacean*		
			Oikoplura		*Oikoplura*		*Bivalve Larvae*		*Bivalve Larvae*		*Oikoplura*		*Bivalve Larvae*		
3	Total Biomass	ml/100 m³	14.78		16.52		17.33		18.63		17.42		14.25		

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RESULTS OF MARINE WATER [M11 MPT T1 JETTY N 22°42'278" E 069°43'450"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM			
C			Microbiological												
1	Total Bacterial Count	CFU/ml	190		232		278		254		296		264		APHA 23rd Ed.2017,9215-C
2	Total Coliform	/100ml	41		50		44		40		52		44		APHA 23rd Ed.2017,9222-B
3	E.coli	/100ml	26		22		23		29		32		30		IS :15185:2016
4	Enterococcus	/100ml	21		15		18		15		22		15		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 23rd Ed.2017,9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF MARINE WATER [M12 SPM N 22°40'938" E 069°39'191"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.08	7.81	8.21	8.06	8.18	7.98	8.16	7.96	8.14	8.03	8.18	8.02	IS 3025 (Part11)1983
2.	Temperature	°C	30.2	30.1	30.2	30.1	30.1	30	29.9	29.8	30	29.9	29.9	29.8	IS 3025 (Part 9)1984
3.	Total Suspended Solids	mg/L	104	90	116	102	124	104	132	106	118	102	106	84	APHA 23rd Ed.,2017,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	3.2	BDL	3.6	BDL	3.1	BDL	2.9	BDL	3.4	BDL	2.5	BDL	IS 3025(Part 44)1993Amd.01
5.	Dissolved Oxygen	mg/L	6.02	5.81	6.37	6.07	6.2	5.79	6.22	5.92	6.32	6.02	6.15	5.95	APHA 23rd Ed.,2017,4500-O, B
6.	Salinity	ppt	36.74	37.13	36.04	37.23	35.92	36.94	36.21	36.67	36.45	36.88	35.34	35.81	By Calculation
7.	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part39) 1991, Amd. 2
8.	Nitrate as NO_3	µmol/L	3.19	2.97	3.71	3.32	2.59	2.32	2.84	2.59	3.87	3.55	3.06	2.9	APHA 23rd Ed., 2017,4500 NO3-B
9.	Nitrite as NO_2	µmol/L	0.388	0.302	0.517	0.431	0.56	0.431	0.474	0.31	0.522	0.478	0.652	0.565	APHA 23rd Ed.,2017,4500NO_2B
10.	Ammonical Nitrogen as NH_3	µmol/L	3.49	3.19	3.79	3.45	2.49	2.24	2.41	1.89	3.39	3.26	3.32	3.23	APHA 23rd Ed., 2017,4500- NH3 B
11.	Phosphates as PO_4	µmol/L	0.6	0.47	0.43	BDL	0.73	0.86	1.26	1.05	1.47	1.26	1.79	1.58	APHA 23rd Ed.,2017,4500-P, D
12.	Total Nitrogen	µmol/L	7.068	6.462	8.017	7.201	5.64	4.991	5.724	4.79	7.782	7.288	7.032	6.695	APHA 23rd Ed., 2017,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 23rd ED,2017,5520 F
14.	Total Dissolved Solids	mg/L	37120	37500	37844	38124	37520	38040	37160	37642	36980	37460	36248	36828	APHA 23rd Ed.,2017, 2540- C
15.	COD	mg/L	12.04	BDL	39.96	19.98	28.22	16.13	12.16	BDL	16.18	8.09	15.95	3.99	APHA 23rd Ed.,2017, 5220-B

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CIN:U73100GJ2007PTC051463

RESULTS OF MARINE WATER [M12 SPM N 22°40'938" E 069°39'191"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
A			Phytoplankton												
1.	Chlorophyll	mg/m³	2.21	3.1	3	2.33	2.56	3.05	2.88	2.55	2.12	1.69	2.36	2.34	APHA (23rd Ed. 2017)10200 H
2.	Phaeophytin	mg/m³	1.56	0.98	2.01	1.22	1.44	1.78	1.65	1.26	0.94	1.01	1.23	1.56	APHA (23rd Ed. 2017)10200 H
3.	Cell Count	No. x 10³/L	102	86	102	88	127	158	152	106	75	102	86	118	APHA (23rd Ed. 2017)10200 F
4	Name of Group Number and name of group species of each group	--	*Melosira*	*Biddulphia*	*Melosira*	*Biddulphia*	*Melosira*	*Ceratium*	*Coscinodiscus*	*Thallassiosira*	*Ceratium*	*Coscinodiscus*	*Ceratium*	*Thallassiosira*	APHA (23rd Ed. 2017)10200 F
			Pinnularia	*Fragillaria*	*Dinophysis*	*Fragillaria*	*Dinophysis*	*Pinnularia*	*Diploneis*	*Melosira*	*Pinnularia*	*Surirella*	*Pinnularia*	*Melosira*	
			Skeletonema	*Odontella*	*Skeletonema*	*Ceratium*	*Skeletonema*	*Odontella*	*Rhizosolenia*	*Nitzschia*	*Odontella*	*Rhizosolenia*	*Odontella*	*Nitzschia*	
			Thallassiosira	*Grammatophora*	*Thallassiosira*	*Nitzschia*	*Thallassiosira*	*Thalassiothrix*	*Dinophysis*	*Rhizosolenia*	*Thalassiothrix*	*Pinnularia*	*Thalassiothrix*	*Rhizosolenia*	
			Thalassionema	*Melosira*	*Thalassionema*	*Melosira*	*Thalassionema*	*Thallassiosira*	*Thalassionema*	*Pleurosigma*	*Thallassiosira*	*Thalassionema*	*Thallassiosira*	*Pleurosigma*	

B			Zooplankton						
1	Abudance(Population)	noX103 / 100 m3	35	43	49	40	40	25	APHA (23rd Ed. 2017)10200 G
2	Name of Group Number and name of group species of each group		*Decapoda*	*Decapoda*	*Copepods nauplii*	*Copepods nauplii*	*Egg(Fish and Shrimps)*	*Grammatophora*	
			Oikoplura	*Oikoplura*	*Copepods*	*Copepods*	*Crustacean Larvae*	*Rhizosolenia*	
			Crustacean Larvae	*Crustacean Larvae*	*Crustacean Larvae*	*Crustacean Larvae*	*Copepods nauplii*	*Nitzschia*	
			Bivalve Larvae	*Bivalve Larvae*	*Bivalve Larvae*	*Bivalve Larvae*	*Crustacean*	*Thalassionema*	
			Oikoplura	*Crustacean*	*Crustacean*	*Crustacean*	*Bivalve Larvae*	*Pleurosigma*	
3	Total Biomass	ml/100 m³	15.47	14.56	16.22	15.45	16.23	13.65	

Continue…

RESULTS OF MARINE WATER [M12 SPM N 22°40'938" E 069°39'191"]

SR. NO.	TEST PARAMETERS	UNIT	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM			
C			Microbiological												
1	Total Bacterial Count	CFU/ml	214		200		144		260		274		202		APHA 23rd Ed.2017,9215-C
2	Total Coliform	/100ml	41		32		30		50		44		50		APHA 23rd Ed.2017,9222-B
3	E.coli	/100ml	25		20		12		29		30		42		IS :15185:2016
4	Enterococcus	/100ml	12		8		10		11		13		19		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 23rd Ed.2017,9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF ETP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	LIQUID TERMINAL						GPCB Limit	TEST METHOD
			Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23		
			21-04-2023	29-05-2023	29-06-2023	25-07-2023	25-08-2023	14-09-2023		
1.	Colour	Pt. Co. Scale	50	40	50	40	50	50	100	IS 3025(Part 4)
2.	pH @ 27 ° C	--	7.41	6.74	7.26	7.36	7.44	7.52	6.5 to 8.5	APHA 23rd Ed.,2017,4500-H^+B
3.	Temperature	^{0}C	30	31	30.5	30	30	30	40	IS 3025(Part 9)1984
4.	Total Suspended Solid	mg/L	22	24	26	24	18	32	100	APHA 23rd Ed.,2017,2540 –D
5.	Total Dissolved Solids	mg/L	1106	732	804	810	822	840	2100	APHA 23rd Ed.,2017,2540- C
6.	COD	mg/L	72.6	76.2	74.3	89.4	80.9	83.6	100	IS 3025(Part 58)2006
7.	BOD (3 days at 27 ^{0}C)	mg/L	20	23	25	27	24	23	30	IS 3025(Part 44)1993Amd.01
8.	Chloride (as Cl) $^-$	mg/L	480.9	332.5	420.1	411.5	391	337.3	600	IS 3025(PART 32) 1988
9.	Oil & Grease	mg/L	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	10	IS 3025(Part39)1991, Amd. 2
10.	Sulphate (as SO_4)	mg/L	102	43.3	40.2	36.6	42.2	46.4	1000	IS 3025(Part 24)1986
11.	Ammonical Nitrogen	mg/L	22.2	28.4	24.2	22.8	20.6	28.8	50	IS 3025(Part 34)1988,
12.	Phenolic Compound	mg/L	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	1	IS 3025(Part 43)1992, Amd.2
13.	Copper as Cu	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	3	IS 3025(Part 42)1992amd.01,
14.	Lead as Pb	mg/L	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	0.1	APHA 23rd Ed.,2017,3111-B

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CIN:U73100GJ2007PTC051463

SR.NO.	TEST PARAMETERS	UNIT	LIQUID TERMINAL						GPCB Limit	TEST METHOD
			Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23		
			21-04-2023	29-05-2023	29-06-2023	25-07-2023	25-08-2023	14-09-2023		
15.	Sulphide as S	mg/L	0.62	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	2	APHA 23rd Ed.,2017,4500 S^{-2} F
16.	Cadmium as Cd	mg/L	BDL(MDL:0.003)	BDL(MDL:0.003)	BDL(MDL:0.003)	BDL(MDL:0.003)	BDL(MDL:0.003)	BDL(MDL:0.003)	2	APHA 23rd Ed.,2017,3111-B
17.	Fluoride as F	mg/L	1.03	0.82	0.94	0.86	0.74	0.66	2	APHA 23rd Ed.,2017,4500 F, D
18.	Residual Chlorine	mg/L	0.74	0.88	0.78	0.64	0.94	0.82	0.5 Min.	APHA 23rd Ed.,2017,4500-Cl-B
19.	Percent Sodium	%	48.51	48.05	46.74	45.72	46.93	46.94	60	By Calculation
20.	Sodium Absorption ratio	--	3.51	3.09	2.67	2.86	2.64	2.61	26	By Calculation

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Results of Ambient Air Quality Monitoring

Name of Location		CT3 RMU-2						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
1.	03-04-2023	84.38	41.2	38.42	45.72	1.93	--	NOT DETECTED
2.	06-04-2023	81.26	36.18	32.54	36.92	1.47	3.58	NOT DETECTED
3.	10-04-2023	74.72	35.82	26.48	33.24	1.18	5.62	NOT DETECTED
4.	13-04-2023	78.41	39.16	29.64	36.41	1.16	2.48	NOT DETECTED
5.	17-04-2023	82.57	40.86	32.28	38.74	1.38	2.51	NOT DETECTED
6.	20-04-2023	76.38	37.55	27.94	34.19	0.97	4.87	NOT DETECTED
7.	24-04-2023	81.53	34.27	31.62	37.47	1.12	2.78	NOT DETECTED
8.	27-04-2023	75.28	36.91	28.47	34.69	0.95	3.94	NOT DETECTED
9.	01-05-2023	72.59	38.73	36.57	41.38	1.28	6.32	NOT DETECTED
10.	04-05-2023	78.42	34.65	31.48	35.63	1.16	4.76	NOT DETECTED
11.	08-05-2023	84.61	41.13	37.64	44.13	1.39	6.58	NOT DETECTED
12.	11-05-2023	86.74	31.38	30.19	33.53	1.10	4.37	NOT DETECTED
13.	15-05-2023	80.15	26.78	34.15	39.53	1.15	4.16	NOT DETECTED
14.	18-05-2023	77.58	34.71	37.14	41.95	1.17	4.85	NOT DETECTED
15.	22-05-2023	71.31	29.85	26.54	29.36	1.15	3.28	NOT DETECTED

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CIN:U73100GJ2007PTC051463

Name of Location		CT3 RMU-2						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
16.	25-05-2023	75.47	37.53	34.29	39.74	1.28	4.61	NOT DETECTED
17.	29-05-2023	67.53	31.36	31.11	36.98	1.32	4.74	NOT DETECTED
18.	01-06-2023	86.95	32.73	29.58	32.56	1	4.81	NOT DETECTED
19.	05-06-2023	87.39	29.63	25.19	27.41	0.80	3.12	NOT DETECTED
20.	08-06-2023	82.47	35.38	32.46	35.71	0.5	6.02	NOT DETECTED
21.	12-06-2023	85.25	30.76	28.38	31.25	0.7	5.68	NOT DETECTED
22.	15-06-2023	75.23	28.12	16.15	22.98	0.05	4.38	NOT DETECTED
23.	19-06-2023	62.35	22.12	13.52	17.36	0.05	4.19	NOT DETECTED
24.	22-06-2023	54.23	20.18	10.44	13.48	0.1	3.45	NOT DETECTED
25.	26-06-2023	58.1	23.15	8.26	13.54	0.05	3.22	NOT DETECTED
26.	29-06-2023	52.47	20.12	7.25	12.97	0.03	3.89	NOT DETECTED
27.	03-07-2023	55.63	19.27	13.58	16.41	ND	--	NOT DETECTED
28.	06-07-2023	61.28	23.85	16.43	20.58	ND	ND	NOT DETECTED
29.	10-07-2023	58.39	20.51	13.1	17.32	ND	ND	NOT DETECTED
30.	13-07-2023	67.52	23.46	17.59	21.45	ND	1.57	NOT DETECTED
31.	17-07-2023	55.21	21.99	14.12	18.93	ND	ND	NOT DETECTED

Continue…

Name of Location		CT3 RMU-2						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
32.	20-07-2023	62.48	24.51	16.53	20.71	ND	ND	NOT DETECTED
33.	24-07-2023	70.62	26.86	19.25	23.66	ND	2.31	NOT DETECTED
34.	27-07-2023	64.5	23.45	15.59	18.35	ND	1.86	NOT DETECTED
35.	31-07-2023	74.38	24.16	17.42	21.63	ND	2.74	NOT DETECTED
36.	03-08-2023	78.42	27.17	23.85	28.17	0.51	3.1	NOT DETECTED
37.	07-08-2023	83.74	29.82	24.98	30.52	0.73	3.86	NOT DETECTED
38.	10-08-2023	73.29	33.52	27.43	32.65	0.91	4.38	NOT DETECTED
39.	14-08-2023	89.54	30.79	25.14	29.67	0.84	3.95	NOT DETECTED
40.	17-08-2023	84.82	34.65	28.06	34.29	1	4.63	NOT DETECTED
41.	21-08-2023	87.57	37.25	33.96	38.11	1.1	5.82	NOT DETECTED
42.	24-08-2023	80.41	35.76	31.45	36.74	1.06	5.21	NOT DETECTED
43.	28-08-2023	88.65	31.38	28.91	32.5	0.92	3.4	NOT DETECTED
44.	31-08-2023	82.18	33.82	30.24	34.62	1	4.27	NOT DETECTED
45.	04-09-2023	80.43	30.14	25.38	29.71	0.74	3.89	NOT DETECTED
46.	07-09-2023	85.28	33.87	27.49	32.12	0.87	4.26	NOT DETECTED
47.	11-09-2023	87.36	35.81	31.57	36.79	0.96	5.36	NOT DETECTED

Continue…

Name of Location		CT3 RMU-2						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
48.	14-09-2023	84.1	31.27	29.14	34.62	0.81	4.92	NOT DETECTED
49.	18-09-2023	73.79	26.94	23.41	26.63	0.65	3.24	NOT DETECTED
50.	21-09-2023	78.52	29.63	26.54	30.21	0.8	4.28	NOT DETECTED
51.	25-09-2023	75.18	28.42	25.77	29.83	0.72	3.85	NOT DETECTED
52.	28-09-2023	81.84	32.56	29.91	34.52	0.84	4.1	NOT DETECTED
Permissible Value as per NAAQMS		**100.0**	**60.0**	**80.0**	**80.0**	**2.0**	**---**	**5.0**
Test Method		**IS - 5182, Part-23**	**UERL/AIR/SOP/11**	**IS - 5182, Part - 2**	**IS - 5182, Part - 6**	**IS - 5182, Part - 10**	**Gas analyzer**	**IS – 5182, Part – 11**

Nikunj D. Patel
(Chemist)

GUJARAT VAPI

Jaivik S. Tandel
(Manager - Operations)

Results of Ambient Air Quality Monitoring

Name of Location		Near Fire Station						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
1.	03-04-2023	76.48	31.73	26.14	32.87	0.86	--	NOT DETECTED
2.	06-04-2023	89.53	38.79	29.47	35.63	0.99	3.12	NOT DETECTED
3.	10-04-2023	85.1	42.18	33.86	39.25	1.1	2.96	NOT DETECTED
4.	13-04-2023	78.46	37.67	26.24	31.63	0.89	3.63	NOT DETECTED
5.	17-04-2023	88.24	45.64	37.11	44.91	1.13	5.1	NOT DETECTED
6.	20-04-2023	81.39	40.71	33.79	36.15	1.12	3.78	NOT DETECTED
7.	24-04-2023	86.73	36.28	24.87	27.61	1	3.16	NOT DETECTED
8.	27-04-2023	89.74	39.56	27.71	31.36	1.10	4.85	NOT DETECTED
9.	01-05-2023	88.16	41.58	34.82	37.16	1.18	4.87	NOT DETECTED
10.	04-05-2023	83.84	38.47	31.98	34.64	1.15	3.68	NOT DETECTED
11.	08-05-2023	86.48	34.21	26.14	31.99	0.97	3.16	NOT DETECTED
12.	11-05-2023	77.59	39.69	36.83	40.71	1.17	4.28	NOT DETECTED
13.	15-05-2023	89.36	36.71	29.56	34.41	1	2.95	NOT DETECTED
14.	18-05-2023	83.17	31.58	24.75	28.78	0.93	3.48	NOT DETECTED
15.	22-05-2023	80.49	39.78	33.05	38.51	1.13	4.17	NOT DETECTED

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CIN:U73100GJ2007PTC051463

Name of Location		Near Fire Station						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
16.	25-05-2023	87.51	35.93	25.48	31.64	1	3.57	NOT DETECTED
17.	29-05-2023	81.26	38.46	31.95	38.62	1.14	4.28	NOT DETECTED
18.	01-06-2023	87.83	36.37	27.41	30.13	0.8	3.26	NOT DETECTED
19.	05-06-2023	80.38	39.61	31.46	35.57	0.5	4.37	NOT DETECTED
20.	08-06-2023	85.27	43.58	35.82	37.42	1.00	4.94	NOT DETECTED
21.	12-06-2023	89.53	37.77	29.64	32.85	0.75	2.9	NOT DETECTED
22.	15-06-2023	80.53	28.15	17.14	21.54	0.05	3.57	NOT DETECTED
23.	19-06-2023	56.21	22.1	14.5	19.65	0.02	3.02	NOT DETECTED
24.	22-06-2023	60.55	18.54	13.56	17.48	0.10	2.35	NOT DETECTED
25.	26-06-2023	51.48	17	10.25	14.52	0.1	3.35	NOT DETECTED
26.	29-06-2023	50.28	16.25	9.85	13.25	0.5	2.56	NOT DETECTED
27.	03-07-2023	58.64	20.27	14.73	17.32	0.02	--	NOT DETECTED
28.	06-07-2023	51.39	19.64	12.75	15.43	ND	1.24	NOT DETECTED
29.	10-07-2023	62.75	23.54	16.42	19.66	ND	2.15	NOT DETECTED
30.	13-07-2023	66.34	25.61	17.47	22.92	0.04	2.57	NOT DETECTED
31.	17-07-2023	72.48	28.64	20.51	25.46	0.08	3.12	NOT DETECTED

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CIN:U73100GJ2007PTC051463

Name of Location		Near Fire Station						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
32.	20-07-2023	64.96	26.13	18.37	22.45	0.02	2.84	NOT DETECTED
33.	24-07-2023	60.65	25.83	17.32	20.84	ND	3	NOT DETECTED
34.	27-07-2023	69.27	27.61	19.03	24.58	ND	3.37	NOT DETECTED
35.	31-07-2023	77.17	29.76	23.53	27.24	0.1	3.89	NOT DETECTED
36.	03-08-2023	64.97	27.61	20.13	24.86	0.91	1.59	NOT DETECTED
37.	07-08-2023	74.65	30.14	22.97	26.49	0.95	2.16	NOT DETECTED
38.	10-08-2023	71.59	28.7	21.38	23.75	0.82	1.91	NOT DETECTED
39.	14-08-2023	87.64	31.85	24.73	28.05	0.97	2.48	NOT DETECTED
40.	17-08-2023	89.62	38.61	31.28	37.82	1.13	4.73	NOT DETECTED
41.	21-08-2023	81.47	32.57	28.82	33.67	1.04	3.84	NOT DETECTED
42.	24-08-2023	76.73	35.88	30.31	36.47	1.1	4.24	NOT DETECTED
43.	28-08-2023	87.46	30.93	26.42	31.28	0.95	2.38	NOT DETECTED
44.	31-08-2023	82.15	33.73	28.28	34.65	1.00	3.55	NOT DETECTED
45.	04-09-2023	75.62	28.36	24.71	27.35	0.73	2.84	NOT DETECTED
46.	07-09-2023	78.57	31.82	25.61	29.13	0.85	3.15	NOT DETECTED
47.	11-09-2023	83.16	34.77	28.45	32.81	0.92	3.78	NOT DETECTED

Continue…

Name of Location		Near Fire Station						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
48.	14-09-2023	80.58	32.19	27.31	31.42	0.71	3.52	NOT DETECTED
49.	18-09-2023	67.33	26.42	21.54	24.77	0.53	1.38	NOT DETECTED
50.	21-09-2023	74.92	29.71	25.64	29.13	0.75	2.04	NOT DETECTED
51.	25-09-2023	70.74	27.25	23.58	26.83	0.63	1.84	NOT DETECTED
52.	28-09-2023	77.28	31.82	26.16	30.32	0.91	3.11	NOT DETECTED
Permissible Value as per NAAQMS		**100.0**	**60.0**	**80.0**	**80.0**	**2.0**	**---**	**5.0**
Test Method		**IS - 5182, Part-23**	**UERL/AIR/SOP/11**	**IS - 5182, Part - 2**	**IS - 5182, Part - 6**	**IS - 5182, Part - 10**	**Gas analyzer**	**IS – 5182, Part – 11**

Nikunj D. Patel
(Chemist)

GUJARAT VAPI

Jaivik S. Tandel
(Manager - Operations)

Results of Ambient Air Quality Monitoring

Name of Location		ADANI PORT – TUG Berth 600 KL Pupm House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
1.	03-04-2023	80.47	37.25	29.74	34.28	1.14	--	NOT DETECTED
2.	06-04-2023	77.92	45.27	39.16	42.78	0.94	3.16	NOT DETECTED
3.	10-04-2023	86.74	35.83	31.58	38.64	0.91	2.44	NOT DETECTED
4.	13-04-2023	81.39	46.93	41.11	48.83	1.17	5.12	NOT DETECTED
5.	17-04-2023	88.26	36.34	34.26	37.56	1.12	3.73	NOT DETECTED
6.	20-04-2023	79.39	38.15	30.16	34.92	0.93	1.97	NOT DETECTED
7.	24-04-2023	84.82	44.79	36.81	39.14	1.00	4.16	NOT DETECTED
8.	27-04-2023	87.13	39.36	33.43	36.36	0.98	3.37	NOT DETECTED
9.	01-05-2023	77.48	42.53	33.48	39.64	1.17	4.62	NOT DETECTED
10.	04-05-2023	83.7	38.65	29.29	32.48	1	3.58	NOT DETECTED
11.	08-05-2023	79.46	48.49	36.82	43.76	1.23	5.95	NOT DETECTED
12.	11-05-2023	73.19	44.76	34.03	39.71	1.15	5.13	NOT DETECTED
13.	15-05-2023	86.79	41.37	27.42	33.91	1.1	3.82	NOT DETECTED
14.	18-05-2023	80.48	46.42	37.58	41.36	1.17	4.79	NOT DETECTED
15.	22-05-2023	76.51	40.51	31.49	36.15	1.15	3.67	NOT DETECTED

Continue…

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
CIN:U73100GJ2007PTC051463

Name of Location		ADANI PORT – TUG Berth 600 KL Pupm House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
16.	25-05-2023	81.49	38.13	28.67	33.26	1.12	4.18	NOT DETECTED
17.	29-05-2023	78.41	35.48	25.15	29.69	1	3.64	NOT DETECTED
18.	01-06-2023	87.48	44.85	31.36	38.57	1	5.23	NOT DETECTED
19.	05-06-2023	83.96	46.41	36.74	43.55	0.8	5.78	NOT DETECTED
20.	08-06-2023	87.52	40.78	29.65	36.28	0.75	4.58	NOT DETECTED
21.	12-06-2023	76.89	36.13	26.25	32.19	0.5	4.02	NOT DETECTED
22.	15-06-2023	88.56	30.15	14.56	20.98	0.05	3.67	NOT DETECTED
23.	19-06-2023	60.52	24.14	12.51	17.54	0.02	3.1	NOT DETECTED
24.	22-06-2023	62.35	21.15	11.28	15.23	0.10	2.59	NOT DETECTED
25.	26-06-2023	55.14	18.53	9.25	12.89	0.1	2.96	NOT DETECTED
26.	29-06-2023	56.23	17.55	10.25	14.56	0.5	3.14	NOT DETECTED
27.	03-07-2023	61.28	23.57	18.76	22.35	0.03	--	NOT DETECTED
28.	06-07-2023	67.42	26.78	19.32	21.57	0.06	2.97	NOT DETECTED
29.	10-07-2023	58.37	21.72	15.48	18.43	ND	1.25	NOT DETECTED
30.	13-07-2023	64.19	25.91	18.43	21.88	ND	2.36	NOT DETECTED
31.	17-07-2023	55.1	19.58	14.46	17.85	ND	1.13	NOT DETECTED

Continue…

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
CIN:U73100GJ2007PTC051463

Name of Location		ADANI PORT – TUG Berth 600 KL Pupm House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
32.	20-07-2023	69.52	22.47	19.93	22.41	0.02	2.7	NOT DETECTED
33.	24-07-2023	73.38	25.79	21.31	25.05	0.1	3.16	NOT DETECTED
34.	27-07-2023	78.53	28.31	20.68	23.36	0.05	3.76	NOT DETECTED
35.	31-07-2023	65.27	24.65	17.21	21.1	0.03	2.57	NOT DETECTED
36.	03-08-2023	71.36	30.18	21.57	24.16	0.93	2.96	NOT DETECTED
37.	07-08-2023	78.65	32.38	22.96	26.02	0.97	3.36	NOT DETECTED
38.	10-08-2023	86.93	36.61	25.74	27.97	1	3.85	NOT DETECTED
39.	14-08-2023	81.27	34.06	23.58	26.19	0.95	3.04	NOT DETECTED
40.	17-08-2023	70.43	37.59	28.83	31.65	1.04	4.25	NOT DETECTED
41.	21-08-2023	76.53	38.83	31.25	35.61	1.1	4.63	NOT DETECTED
42.	24-08-2023	88.61	41.41	34.64	38.45	1.12	5.12	NOT DETECTED
43.	28-08-2023	82.37	37.49	30.91	33.78	1	4.73	NOT DETECTED
44.	31-08-2023	89.52	34.31	27.88	31.94	0.97	3.62	NOT DETECTED
45.	04-09-2023	78.35	31.56	23.73	26.38	1.00	4.37	NOT DETECTED
46.	07-09-2023	81.75	33.38	26.36	30.54	1.04	5.16	NOT DETECTED
47.	11-09-2023	76.38	30.61	22.95	25.17	1	4.58	NOT DETECTED

Continue…

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
CIN:U73100GJ2007PTC051463

Name of Location		ADANI PORT – TUG Berth 600 KL Pupm House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
48.	14-09-2023	83.16	34.65	26.79	30.98	1.05	5.05	NOT DETECTED
49.	18-09-2023	72.48	27.89	21.56	24.35	0.92	3.13	NOT DETECTED
50.	21-09-2023	76.51	30.35	24.66	27.42	1	3.37	NOT DETECTED
51.	25-09-2023	81.49	32.78	27.9	31.67	1.05	4.26	NOT DETECTED
52.	28-09-2023	85.65	36.27	31.52	34.66	1.1	4.75	NOT DETECTED
Permissible Value as per NAAQMS		**100.0**	**60.0**	**80.0**	**80.0**	**2.0**	**---**	**5.0**
Test Method		**IS - 5182, Part-23**	**UERL/AIR/SOP/11**	**IS - 5182, Part - 2**	**IS - 5182, Part - 6**	**IS - 5182, Part - 10**	**Gas analyzer**	**IS – 5182, Part – 11**

Nikunj D. Patel
(Chemist)

GUJARAT VAPI

Jaivik S. Tandel
(Manager - Operations)

Results of Ambient Air Quality Monitoring

Name of Location		PUB / Adani House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
1.	03-04-2023	81.59	32.37	12.74	18.52	0.47	--	NOT DETECTED
2.	06-04-2023	72.67	26.17	16.53	24.87	1.00	3.19	NOT DETECTED
3.	10-04-2023	79.71	28.64	11.77	15.14	0.69	3.47	NOT DETECTED
4.	13-04-2023	85.43	31.38	15.94	19.26	0.56	1.63	NOT DETECTED
5.	17-04-2023	74.71	24.15	10.68	14.83	0.45	1.29	NOT DETECTED
6.	20-04-2023	89.12	34.78	18.34	23.18	0.74	4.02	NOT DETECTED
7.	24-04-2023	70.88	25.12	13.28	17.85	0.38	3.27	NOT DETECTED
8.	27-04-2023	76.59	23.37	11.25	15.92	0.49	1.76	NOT DETECTED
9.	01-05-2023	89.16	32.08	14.56	18.34	1.12	2.85	NOT DETECTED
10.	04-05-2023	73.45	36.51	21.13	26.12	0.85	4.16	NOT DETECTED
11.	08-05-2023	86.54	28.12	15.76	19.58	1.00	3.31	NOT DETECTED
12.	11-05-2023	82.61	31.28	20.12	25.74	0.92	5.03	NOT DETECTED
13.	15-05-2023	85.47	38.64	23.12	27.89	1.00	4.58	NOT DETECTED
14.	18-05-2023	82.73	29.24	15.48	21.95	0.95	2.84	NOT DETECTED
15.	22-05-2023	74.91	25.10	12.46	16.32	1.07	2.36	NOT DETECTED

Continue…

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
CIN:U73100GJ2007PTC051463

Name of Location		PUB / Adani House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
16.	25-05-2023	69.55	22.47	14.36	17.85	0.90	2.14	NOT DETECTED
17.	29-05-2023	76.82	28.53	11.34	15.62	1.10	3.64	NOT DETECTED
18.	01-06-2023	83.49	34.61	17.32	22.92	1.00	3.70	NOT DETECTED
19.	05-06-2023	86.37	31.79	14.37	17.42	0.95	3.42	NOT DETECTED
20.	08-06-2023	81.94	27.37	12.47	16.33	0.07	3.10	NOT DETECTED
21.	12-06-2023	85.65	29.48	15.89	18.62	0.05	2.68	NOT DETECTED
22.	15-06-2023	72.56	25.14	13.21	17.25	0.02	2.55	NOT DETECTED
23.	19-06-2023	52.12	20.15	10.25	15.23	0.04	3.14	NOT DETECTED
24.	22-06-2023	54.12	17.25	9.25	14.30	0.05	2.36	NOT DETECTED
25.	26-06-2023	48.53	15.23	8.25	12.78	0.02	2.05	NOT DETECTED
26.	29-06-2023	45.25	14.28	7.60	11.21	0.05	2.54	NOT DETECTED
27.	03-07-2023	49.42	18.68	11.42	14.37	NOT DETECTED	--	NOT DETECTED
28.	06-07-2023	54.31	21.63	7.48	10.31	NOT DETECTED	NOT DETECTED	NOT DETECTED
29.	10-07-2023	46.78	17.42	6.30	8.54	NOT DETECTED	NOT DETECTED	NOT DETECTED
30.	13-07-2023	40.32	14.69	5.87	8.13	NOT DETECTED	NOT DETECTED	NOT DETECTED
31.	17-07-2023	43.25	15.74	7.53	12.74	NOT DETECTED	NOT DETECTED	NOT DETECTED

Continue…

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Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
CIN:U73100GJ2007PTC051463

Name of Location		PUB / Adani House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
32.	20-07-2023	51.99	17.53	10.18	13.89	NOT DETECTED	NOT DETECTED	NOT DETECTED
33.	24-07-2023	57.47	21.71	13.52	17.85	NOT DETECTED	NOT DETECTED	NOT DETECTED
34.	27-07-2023	49.74	18.63	11.57	14.38	NOT DETECTED	NOT DETECTED	NOT DETECTED
35.	31-07-2023	55.39	20.95	14.42	18.61	NOT DETECTED	NOT DETECTED	NOT DETECTED
36.	03-08-2023	57.93	22.48	14.23	19.45	NOT DETECTED	NOT DETECTED	NOT DETECTED
37.	07-08-2023	63.67	23.95	16.83	22.49	0.57	1.37	NOT DETECTED
38.	10-08-2023	69.72	25.65	19.70	25.18	0.84	1.95	NOT DETECTED
39.	14-08-2023	76.82	28.10	21.16	27.54	0.96	2.84	NOT DETECTED
40.	17-08-2023	88.54	31.79	18.28	23.93	0.73	3.16	NOT DETECTED
41.	21-08-2023	71.91	34.92	22.57	28.88	1.00	4.73	NOT DETECTED
42.	24-08-2023	76.48	37.63	25.91	31.45	1.13	5.28	NOT DETECTED
43.	28-08-2023	86.54	29.35	20.77	24.14	0.93	3.54	NOT DETECTED
44.	31-08-2023	81.38	26.59	17.24	23.45	0.81	3.12	NOT DETECTED
45.	04-09-2023	67.38	24.75	16.26	20.81	0.63	2.18	NOT DETECTED
46.	07-09-2023	73.26	27.42	18.91	23.74	0.74	2.65	NOT DETECTED
47.	11-09-2023	69.87	25.94	17.43	21.65	0.57	2.38	NOT DETECTED

Continue…

Name of Location		PUB / Adani House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM_{10} µg/m³	$PM_{2.5}$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	HC µg/m³	Benzene µg/m³
48.	14-09-2023	75.13	29.41	20.87	25.36	0.83	3.18	NOT DETECTED
49.	18-09-2023	63.69	21.83	14.27	18.50	0.41	1.86	NOT DETECTED
50.	21-09-2023	68.26	23.71	16.32	20.81	0.59	2.11	NOT DETECTED
51.	25-09-2023	72.47	24.60	17.91	22.53	0.80	2.87	NOT DETECTED
52.	28-09-2023	76.19	26.74	20.45	25.18	0.87	3.41	NOT DETECTED
Permissible Value as per NAAQMS		**100.0**	**60.0**	**80.0**	**80.0**	**2.0**	**---**	**5.0**
Test Method		**IS - 5182, Part-23**	**UERL/AIR/SOP/11**	**IS - 5182, Part - 2**	**IS - 5182, Part - 6**	**IS - 5182, Part - 10**	**Gas analyzer**	**IS – 5182, Part – 11**

Nikunj D. Patel
(Chemist)

GUJARAT VAPI

Jaivik S. Tandel
(Manager - Operations)

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
CIN:U73100GJ2007PTC051463

White House
Near G.I.D.C. Office, Char Rasta,
Vapi - 396 195. Gujarat, India.
Phone : +91 260 2433966 / 2425610
Email : response@uerl.in Website : www.uerl.in

Results of Noise Level Monitoring

Location Name		CT3 RMU-2					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		13-04-2023	11-05-2023	12-06-2023	13-07-2023	14-08-2023	14-09-2023
1	06:00 to 07:00	64.1	62.5	63.5	60.9	61.3	65.1
2	07:00 to 08:00	66.7	61.5	66.9	63.1	64.8	67.4
3	08:00 to 09:00	68.3	60.5	67.5	65.4	65.4	64.8
4	09:00 to 10:00	64.3	62.3	68.6	63.7	63.7	67.4
5	10:00 to 11:00	67.8	60.5	61.5	63.9	64.3	69.7
6	11:00 to 12:00	62.9	63.4	66.4	67	68.5	67.4
7	12:00 to 13:00	67.9	64.2	68.9	67.8	66.2	68.3
8	13:00 to 14:00	64.5	65.5	69.5	63.8	64.2	67.1
9	14:00 to 15:00	68.3	64.9	64.5	63.2	65.7	69.9
10	15:00 to 16:00	62.9	63.6	66.2	64.2	63.2	65.4
11	16:00 to 17:00	67.5	65.3	60.2	62.4	62.4	67.5
12	17:00 to 18:00	67.1	62.8	65.5	61.6	61.6	63.7
13	18:00 to 19:00	68.4	63.4	68.9	65.9	64.1	65.3
14	19:00 to 20:00	64.6	65.5	68.5	69.9	63.2	65.7
15	20:00 to 21:00	67.4	62.8	63.2	67.2	65.4	63.1
16	21:00 to 22:00	62.6	60.5	59.7	64.1	62.5	62.8
Day Time		<75 dB (A)					

Continue...

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
CIN:U73100GJ2007PTC051463

Location Name		CT3 RMU-2					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		13-04-2023	11-05-2023	12-06-2023	13-07-2023	14-08-2023	14-09-2023
1	22:00 to 23:00	62.8	62.5	60.5	60.3	62.4	60.1
2	23:00 to 24:00	60.4	62.3	59.8	63.2	64.8	63.5
3	24:00 to 01:00	59.4	62.3	59.8	61.7	63.8	62.7
4	01:00 to 02:00	58.8	61.6	60.3	62.1	61.7	60.2
5	02:00 to 03:00	59.8	57.8	58.5	60.4	62.7	57.6
6	03:00 to 04:00	58.5	55.9	60.5	64.5	59.4	59.3
7	04:00 to 05:00	57.5	55.5	60.5	62.5	60.3	60.4
8	05:00 to 06:00	58.9	58.2	59.4	58.4	58.1	59.8
Night Time		<70 dB (A)					

Test Method	IS: 9989 : 1981

Nikunj D. Patel
(Chemist)

GUJARAT VAPI

Jaivik S. Tandel
(Manager - Operations)

White House
Near G.I.D.C. Office, Char Rasta,
Vapi - 396 195. Gujarat, India.
Phone : +91 260 2433966 / 2425610
Email : response@uerl.in Website : www.uerl.in

Results of Noise Level Monitoring

Location Name		Near Fire Station					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		06-04-2023	04-05-2023	05-06-2023	06-07-2023	07-08-2023	07-09-2023
1	06:00 to 07:00	63.8	63.4	63.5	64.3	65.1	64.2
2	07:00 to 08:00	67.4	65.2	64.2	67.5	68.4	66.8
3	08:00 to 09:00	62.1	64.2	62.5	63.2	65.3	67.5
4	09:00 to 10:00	64.2	60.7	64.5	64.9	66.8	68.1
5	10:00 to 11:00	69.7	60.5	62.9	62.1	64.3	66.8
6	11:00 to 12:00	63.2	62.7	66.7	67.5	68.1	65.3
7	12:00 to 13:00	65.8	60.6	65.3	63.8	64.9	67.7
8	13:00 to 14:00	67.3	59.7	66.7	65.9	67.1	66.9
9	14:00 to 15:00	67.1	58.5	62.9	67.1	65.2	68.5
10	15:00 to 16:00	64.9	61.2	64.2	62.4	63.5	66.4
11	16:00 to 17:00	61.9	65.3	62.5	67.5	66.8	67.5
12	17:00 to 18:00	64.1	62.8	69.2	64.8	62.9	64.3
13	18:00 to 19:00	63.6	64.2	64.5	61.2	63.6	62.6
14	19:00 to 20:00	64.8	61.8	62.3	60.9	58.6	62.9
15	20:00 to 21:00	61.2	60.5	60.6	64.7	62.4	63.7
16	21:00 to 22:00	63.6	59.5	60.1	63.4	61.5	60.6
Day Time		<75 dB (A)					

Continue…

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Location Name		Near Fire Station					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time					
		06-04-2023	04-05-2023	05-06-2023	06-07-2023	07-08-2023	07-09-2023
1	22:00 to 23:00	58.2	61.8	60.1	60.3	61.5	55.4
2	23:00 to 24:00	56.9	64.5	59.7	61.8	59.7	59.2
3	24:00 to 01:00	57.2	63.9	60.5	62.8	61.8	63.5
4	01:00 to 02:00	60.2	64.5	54.2	60.7	62.9	62.8
5	02:00 to 03:00	57.6	57.5	64.5	61.4	60.3	60.2
6	03:00 to 04:00	55.3	59.2	57.8	63.6	62.4	57.3
7	04:00 to 05:00	55.5	60.5	56.2	64.5	60.1	55.4
8	05:00 to 06:00	57.8	62.5	58.9	62.7	59.5	59.3
Night Time		<70 dB (A)					

Test Method	IS: 9989 : 1981

Nikunj D. Patel
(Chemist)

GUJARAT VAPI

Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		ADANI PORT – TUG Berth 600 KL Pump House					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		10-04-2023	08-05-2023	08-06-2023	10-07-2023	10-08-2023	11-09-2023
1	06:00 to 07:00	61.3	61.5	62.6	62.7	63.7	63.8
2	07:00 to 08:00	64.9	60.5	68.3	65.4	66.2	65.3
3	08:00 to 09:00	63.2	62.3	64.2	63.9	66.9	67.1
4	09:00 to 10:00	67.4	60.5	69.8	67	68.4	66.8
5	10:00 to 11:00	65.9	63.4	62.2	67.8	65.4	68.4
6	11:00 to 12:00	63.5	64.2	68.8	63.8	62.5	65.2
7	12:00 to 13:00	61.3	69.5	65.2	63.2	61.8	66.8
8	13:00 to 14:00	64.8	69.2	66.1	62.4	64.6	65.3
9	14:00 to 15:00	69.5	69.5	60.6	62.5	63.2	68.3
10	15:00 to 16:00	66.3	68.2	61.8	67.1	66.9	67.2
11	16:00 to 17:00	68.1	67.5	62.5	63.9	65.3	69.2
12	17:00 to 18:00	59.8	68.5	63.2	64.2	65.1	67.4
13	18:00 to 19:00	64.9	64.2	65.4	62.6	64.7	63.8
14	19:00 to 20:00	63.2	61.8	62.1	63.3	63.6	63.5
15	20:00 to 21:00	64.6	60.1	60.2	66.1	64.5	62.6
16	21:00 to 22:00	60.1	63.5	58.9	59.9	60.1	61.3
Day Time		<75 dB (A)					

Continue…

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CIN:U73100GJ2007PTC051463

Location Name		ADANI PORT – TUG Berth 600 KL Pump House					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time					
		10-04-2023	08-05-2023	08-06-2023	10-07-2023	10-08-2023	11-09-2023
1	22:00 to 23:00	60.6	57.5	61.9	63.9	60.8	57.7
2	23:00 to 24:00	60.5	55.6	62.7	62.3	61.8	60.1
3	24:00 to 01:00	56.7	57.2	63.8	55.3	63.8	61.4
4	01:00 to 02:00	63.5	55.8	64.5	58.3	62.1	61.9
5	02:00 to 03:00	62.8	54.2	60.5	56.5	58.3	58.3
6	03:00 to 04:00	64.5	54.9	63.2	58.8	56.9	55.2
7	04:00 to 05:00	62.3	61.2	60.4	60.7	59.1	56.7
8	05:00 to 06:00	61.5	59.5	60.1	60.1	57.3	58.6
Day Time		<70 dB (A)					

Test Method	IS: 9989 : 1981

GUJARAT VAPI

Nikunj D. Patel
(Chemist)

Jaivik S. Tandel
(Manager - Operations)

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CIN:U73100GJ2007PTC051463

Results of Noise Level Monitoring

Location Name		PUB/Adani House					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		03-04-2023	01-05-2023	01-06-2023	03-07-2023	03-08-2023	04-09-2023
1	06:00 to 07:00	67.5	61.9	61.3	62.5	60.5	62.8
2	07:00 to 08:00	63.2	63.5	63.5	60.9	62.7	63.9
3	08:00 to 09:00	67.4	66.1	66.7	63.2	64.1	65.3
4	09:00 to 10:00	64.8	67.8	67.5	67.4	65.4	63.7
5	10:00 to 11:00	65.3	62.4	68.6	65.2	68.4	63.1
6	11:00 to 12:00	69.1	65.4	61.5	68.9	67.3	64.7
7	12:00 to 13:00	67.4	63.9	66.4	64.8	63.2	66.1
8	13:00 to 14:00	66.9	64.5	68.9	62.3	62.3	63.7
9	14:00 to 15:00	68.4	64.3	66.7	68.6	65.8	64.6
10	15:00 to 16:00	65.7	65.8	67.1	61.2	60.3	62.8
11	16:00 to 17:00	62.7	69.4	68.5	67.2	64.3	64.1
12	17:00 to 18:00	65.9	65.4	68.5	65.5	66.7	65.3
13	18:00 to 19:00	61.5	66.1	66.9	63.4	62.4	62.7
14	19:00 to 20:00	64.6	63.8	62.5	64.7	63.8	63.2
15	20:00 to 21:00	63.6	63.5	63.3	61.4	60.4	64.6
16	21:00 to 22:00	64.9	62.6	58.9	60.1	59.7	61.4
Day Time		<75 dB (A)					

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CIN:U73100GJ2007PTC051463

Location Name		PUB/Adani House					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time					
		03-04-2023	01-05-2023	01-06-2023	03-07-2023	03-08-2023	04-09-2023
1	22:00 to 23:00	58.6	58.5	60.2	56.8	58.2	56.8
2	23:00 to 24:00	57.5	58.3	62.5	59.4	60.1	56.9
3	24:00 to 01:00	58.2	57.5	60.4	60.2	60.7	58.4
4	01:00 to 02:00	56.9	57.8	60.4	57.1	58.3	61.3
5	02:00 to 03:00	58.5	55.9	60.5	57.3	57.3	59.7
6	03:00 to 04:00	57.5	55.5	59.6	62.9	59.4	55.4
7	04:00 to 05:00	56.5	58.2	58.5	60.2	61.2	58.2
8	05:00 to 06:00	57.2	57.5	59.7	59.8	57.3	56.1
Day Time		<70 dB (A)					

Test Method	IS: 9989 : 1981

Nikunj D. Patel
(Chemist)

GUJARAT VAPI

Jaivik S. Tandel
(Manager - Operations)

Results of Stack Monitoring

Sr. No.	Parameter	Unit	Hot Water System-1 (Liquid Terminal)	Hot Water System-2 (Liquid Terminal)	Thermic Fluid Heater (Bitumin-1)	Thermic Fluid Heater (Bitumin-2)	GPCB LIMIT	Method of Test
Apr-23								
1	Particulate Matter	mg/Nm^3	22.86	19.76	21.38	19.06	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO_2	ppm	6.10	6.53	8.69	8.17	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO_X	ppm	19.34	21.84	20.17	21.35	50	IS 11255 (Part - 7)
May-23								
1	Particulate Matter	mg/Nm^3	20.15	19.14	22.85	21.35	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO2	ppm	6.38	6.23	7.46	8.68	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NOX	ppm	21.64	20.37	18.87	22.31	50	IS 11255 (Part - 7)
Jun-23								
1	Particulate Matter	mg/Nm^3	21.35	16.39	21.13	21.87	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO_2	ppm	8.68	6.57	7.28	8.90	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO_X	ppm	22.31	19.36	19.45	21.18	50	IS 11255 (Part - 7)
Jul-23								
1	Particulate Matter	mg/Nm^3	21.87	17.68	19.52	20.75	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO_2	ppm	8.90	5.95	5.79	7.59	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO_X	ppm	21.18	16.26	16.41	19.63	50	IS 11255 (Part - 7)

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CIN:U73100GJ2007PTC051463

Sr. No.	Parameter	Unit	Hot Water System-1 (Liquid Terminal)	Hot Water System-2 (Liquid Terminal)	Thermic Fluid Heater (Bitumin-1)	Thermic Fluid Heater (Bitumin-2)	GPCB LIMIT	Method of Test
Aug-23								
1	Particulate Matter	mg/Nm^3	19.18	20.15	22.37	23.61	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO_2	ppm	8.10	6.08	8.13	9.82	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO_X	ppm	22.85	18.57	20.42	22.45	50	IS 11255 (Part - 7)
Sep-23								
1	Particulate Matter	mg/Nm^3	17.84	18.93	20.47	21.11	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO_2	ppm	7.65	6	7.28	9.20	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO_X	ppm	21.10	17.26	18.57	19.89	50	IS 11255 (Part - 7)

Nikunj D. Patel
(Chemist)

GUJARAT VAPI

Jaivik S. Tandel
(Manager - Operations)

Results of Stack Monitoring

Sr. No.	Parameter	Unit	D.G. Set-6, 7 & 8 (1250 KVA - CT2) Common Stack	D.G. Set-9 (1500 KVA - CT3)	D.G. Set-10 (1500 KVA - CT3)	D.G. Set-11 (1500 KVA - CT3)	GPCB LIMIT	Method of Test
			Sep-23	Aug-23				
			22-09-2023	04-08-2023	04-08-2023	04-08-2023		
1	Particulate Matter	mg/Nm^3	25.48	18.42	20.81	19.32	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO_2	ppm	9.96	15.27	17.65	15.75	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO_X	ppm	19.32	27.58	29.14	22.49	50	IS 11255 (Part - 7)
4	Carbon Monoxide	mg/Nm3	4.19	4.1	3.8	3.6	--	UERL/AIR/SOP/18
5	Non Methyl Hydro Carbon	ppm	Not Detected	Not Detected	Not Detected	Not Detected	--	UERL/AIR/SOP/27

Sr. No.	Parameter	Unit	D.G. Set-12 (1500 KVA) - CT4	D.G. Set-13 (1500 KVA) - CT4	D.G. Set-14 (1500 KVA) - CT4	D.G. Set-1 (500 KVA) - DG House - MPT	GPCB LIMIT	Method of Test
			Aug-23			Dec-22		
			05-08-2023	05-08-2023	05-08-2023	06-08-2023		
1	Particulate Matter	mg/Nm^3	24.39	27.83	21.95	22.74	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO_2	ppm	9.65	9.96	9.34	8.58	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO_X	ppm	21.26	23.54	19.11	28.63	50	IS 11255 (Part - 7)
4	Carbon Monoxide	mg/Nm3	3.8	5.12	4.1	3.16	--	UERL/AIR/SOP/18
5	Non Methyl Hydro Carbon	ppm	Not Detected	Not Detected	Not Detected	Not Detected	--	UERL/AIR/SOP/27

Continue…

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Sr. No.	Parameter	Unit	D.G. Set-2 (500 KVA) - DG House - MPT	D.G. Set-3 (500 KVA) - DG House - MPT	D.G. Set-4 (500 KVA) - DG House - MPT	D.G. Set-5 (500 KVA) - DG House - MPT	GPCB LIMIT	Method of Test
			Aug-23					
			06-08-2023	06-08-2023	06-08-2023	06-08-2023		
1	Particulate Matter	mg/Nm^3	26.35	23.74	28.53	22.61	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO_2	ppm	7.26	9.89	9.48	8.48	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO_X	ppm	30.41	29.38	29.61	26.54	50	IS 11255 (Part - 7)
4	Carbon Monoxide	mg/Nm3	3.93	5.12	5.84	3.91	--	UERL/AIR/SOP/18
5	Non Methyl Hydro Carbon	ppm	Not Detected	Not Detected	Not Detected	Not Detected	--	UERL/AIR/SOP/27

GUJARAT VAPI

Nikunj D. Patel
(Chemist)

Jaivik S. Tandel
(Manager - Operations)

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RESULTS OF BORE HOLE WATER

SR.NO.	TEST PARAMETERS	UNIT	Pump House-1	Pump House-2	Pump House-3	Near Unloading bays	Near ETP	TEST METHOD
			01-09-2023	01-09-2023	01-09-2023	01-09-2023	01-09-2023	
1.	pH @ 25 ° C	--	8.37	8.08	8.48	8.49	7.67	IS 3025(Part 11)1983
2.	Salinity	ppt	2.46	0.89	0.37	0.43	5.82	APHA 23rd Ed.,2017,2520 B
3.	Oil & Grease	mg/L	BDL(MDL:5.0)	BDL(MDL:5.0)	BDL(MDL:5.0)	BDL(MDL:5.0)	BDL(MDL:5.0)	IS 3025(Part39)1991, Amd. 2
4.	Hydrocarbon	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	GC/GCMS
5.	Lead as Pb	mg/L	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	IS 3025 (PART 47) 1994
6.	Arsenic as As	mg/L	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	APHA 23rd Ed.,2017,3114-C
7.	Nickel as Ni	mg/L	0.064	0.055	0.035	0.029	0.252	IS 3025 (PART 54) 2003
8.	Total Chromium as Cr	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	IS 3025 (PART 52) 2003
9.	Cadmium as Cd	mg/L	0.014	0.014	BDL(MDL:0.003)	0.012	0.149	IS 3025(PART 41) 1992
10.	Mercury as Hg	mg/L	BDL(MDL:0.001)	BDL(MDL:0.001)	BDL(MDL:0.001)	BDL(MDL:0.001)	BDL(MDL:0.001)	APHA 23rd Ed.,2017, 3112-B
11.	Zinc as Zn	mg/L	0.076	0.065	0.062	0.061	0.137	IS 3025(PART 49) 1994
12.	Copper as Cu	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	IS 3025 (PART 42) 1992
13.	Iron as Fe	mg/L	0.369	0.946	0.178	0.146	0.457	IS 3025(PART 53) 2003
14.	Insecticides/Pesticides	µg/L	Absent	Absent	Absent	Absent	Absent	USEPA 8081 B
15.	Depth of Water Level from Ground Level	meter	1.92	2.14	1.9	2.1	2.06	--

GUJARAT VAPI

Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Minimum Detection Limit

Ambient Air Quality Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Particulate Matter (PM10)	µg/m3	5 µg/m3
2	Particulate Matter (PM2.5)	µg/m3	5 µg/m3
3	Sulphur Dioxide (SO2)	µg/m3	4 µg/m3
4	Nitrogen Dioxide (NO2)	µg/m3	5 µg/m3
5	Carbon Monoxide (CO)	mg/m3	0.01 mg/m3
6	Ammonia (NH3)	µg/m3	5 µg/m3
7	Ozone (O3)	µg/m3	5 µg/m3
8	Lead (Pb)	µg/m3	0.5 µg/m3
9	Nickle (Ni)	ng/m3	1 ng/m3
10	Arsenic (As)	ng/m3	1 ng/m3
11	Benzene	µg/m3	1µg/m3
12	Benzo(o)Pyrene	ng/m3	0.1 ng/m3
14	Hydro Carbon	µg/m3	1 µg/m3

Stack Emission Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Suspended particulate matter	mg/Nm3	2 mg/Nm3
2	Sulphur Dioxide SOX	mg/Nm3	4 mg/Nm3
3	Oxides of Nitrogen NOX	mg/Nm3	5 mg/Nm3

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ETP Water			
Sr. No.	**Test Parameter**	**Unit**	**MDL**
1	Colour	Pt. Co. Scale	5
2	pH @ 27 ° C	--	2
3	Temperature	0C	5
4	Total Suspended Solids	mg/L	4
5	Total Dissolved Solids	mg/L	4
6	COD	mg/L	2
7	BOD (3 days at 27 0C)	mg/L	1
8	Chloride (as Cl) -	mg/L	1
9	Oil & Grease	mg/L	2
10	Sulphate (as SO4)	mg/L	1
11	Ammonical Nitrogen	mg/L	2
12	Phenolic Compound	mg/L	0.1
13	Copper as Cu	mg/L	0.05
14	Lead as Pb	mg/L	0.01
15	Sulphide as S	mg/L	0.05
16	Cadmium as Cd	mg/L	0.003
17	Fluoride as F	mg/L	0.2
18	Residual Chlorine	mg/L	0.1
19	Percent Sodium	%	--
20	Sodium Absorption ratio	--	--

MARINE WATER			
Sr. No.	**Test Parameter**	**Unit**	**MDL**
1	pH	--	5
2	Temperature	oC	5
3	Total Suspended Solids	mg/L	4
4	BOD (3 Days @ 27oC)	mg/L	1
5	Dissolved Oxygen	mg/L	0.2
6	Salinity	ppt	0.01
7	Oil & Grease	mg/L	2
8	Nitrate as NO_3	µmol/L	0.4
9	Nitrite as NO_2	µmol/L	0.04
10	Ammonical Nitrogen as NH_3	µmol/L	0.8
11	Phosphates as PO_4	µmol/L	0.4
12	Total Nitrogen	µmol/L	2.2
13	Petroleum Hydrocarbon	µg/L	0.1
14	Total Dissolved Solids	mg/L	4
15	COD	mg/L	2

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Sea SEDIMENT			
Sr. No.	**Test Parameter**	**Unit**	**MDL**
1	Organic Matter	%	0.5
2	Phosphorus as P	µg/g	1
3	Texture	--	--
4	Petroleum Hydrocarbon	µg/g	0.1
5	Aluminum as Al	%	0.1
6	Total Chromium as Cr+3	µg/g	2
7	Manganese as Mn	µg/g	1
8	Iron as Fe	%	0.1
9	Nickel as Ni	µg/g	1
10	Copper as Cu	µg/g	1
11	Zinc as Zn	µg/g	1
12	Lead as Pb	µg/g	1
13	Mercury as Hg	µg/g	0.05

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White House
Near G.I.D.C. Office, Char Rasta,
Vapi - 396 195. Gujarat, India.
Phone : +91 260 2433966 / 2425610
Email : response@uerl.in Website : www.uerl.in

BORE HOLE WATER			
Sr. No.	**Test Parameter**	**Unit**	**MDL**
1	pH @ 25 ° C	--	5
2	Salinity	ppt	--
3	Oil & Grease	mg/L	2
4	Hydrocarbon	mg/L	0.1
5	Lead as Pb	mg/L	0.01
6	Arsenic as As	mg/L	0.01
7	Nickel as Ni	mg/L	0.02
8	Total Chromium as Cr	mg/L	0.05
9	Cadmium as Cd	mg/L	0.003
10	Mercury as Hg	mg/L	0.001
11	Zinc as Zn	mg/L	0.05
12	Copper as Cu	mg/L	0.05
13	Iron as Fe	mg/L	0.1
14	Insecticides/Pesticides	µg/L	0.1
15	Depth of Water Level from Ground Level	meter	--

Regd. Office : 215, Royal Arcade, Near G.I.D.C.Office, Char Rasta,Vapi-396 195, Gujarat, India.
Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.
CIN:U73100GJ2007PTC051463

Annexure – 2

Details of Greenbelt Development at APSEZ, Mundra

	Total Green Zone Detail till Up to September 2023				
LOCATION	**Area (In Ha.)**	**Trees (Nos.)**	**Palm (Nos.)**	**Shrubs (SQM)**	**Lawn (SQM)**
SV COLONY	72.29	34920.00	7962.00	69696.00	100646.00
PORT & NON SEZ	81.61	149359.00	19220.00	75061.78	62966.38
SEZ	115.70	226120.00	20489.00	220583.60	28162.03
MITAP	2.47	8113.00	33.00	3340.00	4036.00
WEST PORT	104.29	248074.00	66816.00	24112.00	16369.00
AGRI PARK	8.94	17244.00	1332.00	5400.00	2121.44
SOUTH PORT	14.45	27530.00	3470.00	3882.00	3327.26
Samundra Township	58.26	63722.00	11834.00	23908.89	47520.07
Productive Farming (Vadala Farm)	0.00	0.00	0.00	0.00	0.00
TOTAL (APSEZL)	**457.99**	**775082.00**	**131156.00**	**425984.27**	**265148.18**
		906238.00			

Details of Mangrove Afforestation done by APSEZ

Sl. no.	Location	District	Area (Ha)	Duration	Species	Implementation agency
1	Mundra Port	Kutch	24	-	Avicennia marina	Dr. Maity, Mangrove consultant of India
2	Mundra Port	Kutch	25	-	Avicennia marina	Dr. Maity, Mangrove consultant of India
3	Luni/Hamirmora (Mundra,)	Kutch	160.8	2007 - 2015	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GUIDE, Bhuj
4	Kukadsar (Mundra)	Kutch	66.5	2012 - 2014	Avicennia marina	GUIDE, Bhuj
5	Forest Area (Mundra)	Kutch	298	2011 - 2013	Avicennia marina	Forest Dept, Bhuj
6	Jangi Village (Bhachau)	Kutch	50	2012 - 2014	Avicennia marina	GUIDE, Bhuj
7	Jakhau Village (Abdasa)	Kutch	310.6	2007-08 & 2011-13	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GUIDE, Bhuj
8	Sat Saida Bet	Kutch	255	2014-15 & 2016-17	Avicennia marina & Biodiversity	GUIDE, Bhuj
9	Dandi Village	Navsari	800	2006 - 2011	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GEC, Gandhinagar
10	Talaja Village	Bhavnagar	50	2011-12	Avicennia marina	Forest Dept, Talaja
11	Narmada Village	Bhavnagar	250	2014 - 2015	Avicennia marina	GEC, Gandhinagar
12	Malpur Village	Bharuch	200	2012-14	Avicennia marina	SAVE, Ahmedabad
13	Kantiyajal Village	Bharuch	50	2014-15	Avicennia marina	SAVE, Ahmedabad
14	Devla Village	Bharuch	150	210-16	Avicennia marina	SAVE, Ahmedabad
15	Village Tala Talav (Khambhat)	Anand	100	2015 - 2016	Avicennia marina	SAVE, Ahmedabad
16	Village Tala Talav (Khambhat)	Anand	38	2015 - 2016	Avicennia marina	GEC, Gandhinagar
17	Aliya Bet, Village Katpor (Hansot)	Bharuch	62	2017-18	Avicennia marina & Rhizophora spp.	GEC, Gandhinagar
18	Kukadsar-(Bhadeswar-Mundra)	Kutch	250	2021-22	Avicennia marina	Shreeji Enterprise, Amreli
19	Kukadsar-(Bhadeswar-Mundra)	Kutch	750	2022-23	Avicennia marina	Shreeji Enterprise, Amreli
Total			**3890**			

Annexure – 3

Kutch CSR

Six Monthly Report

2023-24

Adani Foundation
Adani House, Port Road, Mundra – Kutch 370 421
[info@adanifoundation.com] [www.adanifoundation.com]

Preface

Taking inspiration from the philosophy of our Chairman of trusteeship, the Adani Foundation strives to create sustainable opportunities. It does so by facilitating quality education, enabling the youth with income-generating skills, promoting a healthy society by women empowerment and supporting infrastructure development.

With an aim to contribute to the holistic development of communities, the Adani Foundation is contributing to the global agenda of meeting Sustainable Development Goals (SDGs).

Adani Foundation Gujrat sites are catalyst for rural communities residing in villages of Kutch,, Surat and Bharuch District. AF has transformed thousands of lives by serving community to uplift their standard of living by performing CSR activities in various in terms of Infrastructure, Social development, Education, Agriculture, Women empowerment, Water conservation and management and empowering fishermen and Tribal community.

Pankti Shah
Head CSR Gujrat
Adani Foundation

INDEX

CSR Kutch

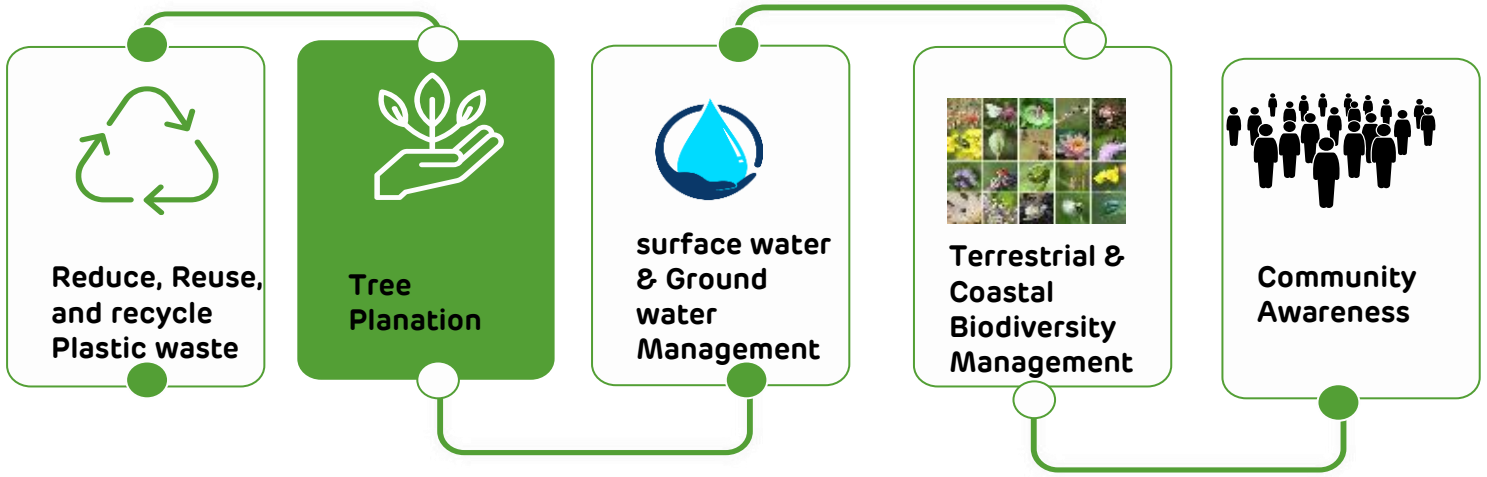
Demographic Details

Block	Villages	No. of HHs	Population
Mundra	61 Village and 9 Fishermen Vasahat	35192	153179
Anjar	3 Villages	4350	18500
Nakhtrana	8 Villages	4093	16373
Bite – Abdasa	12 Villages	2415	9660

1. Adani Ports and SEZ Limited
2. Adani Power Mundra Limited
3. Adani Wilmar Limited
4. Adani Wilmar – Caster Limited
5. Kutchh Copper Limited
6. Mundra Solar Panel Making Unit
7. Green to PVC Mundra Limited
8. Adani Kandla Bulk Terminal Port Pvt Limited
9. Adani Solar Limited – Bitta, Abdasa
10. Adani Green Energy Limited – Nakhatrana
11. Adani Green Energy Limited - Khavda
12. Adani Transmission Limited – Mandvi

Environment Sustainability

Action to environment Sustainability



The environment and biodiversity serve as the lifeblood of our planet, playing a crucial role in maintaining ecological balance and sustaining life in all its diverse forms.

Preserving them is more than a necessity; it is a shared responsibility to secure the health and well-being of both present and future generations.

Adani Foundation embodies this commitment through its varied environmental projects. These range from extensive tree plantation and mangrove restoration to innovative biogas provision, drip irrigation, groundwater recharging, and water conservation.

Environment Sustainability

Water Conservation Project

The water landscape of our Business periphery villages has undergone a significant transformation due to our proactive approach to groundwater and surface water conservation and management work. Our mission is clear – to nurture and sustain water resources. We are primarily focusing on initiatives such as pond deepening, reinforcing check dams, implementing Rainwater Harvesting Systems (RRWHS), setting up borewells, and cleaning river inlets.

These efforts have led to enhanced water storage, ensured consistent water access for drinking and agricultural use.

Sr. NO	Project	Unit	Outcome	Impact
1	Check dam Restrengthening-Nana Kapaya	1	Water Storage Capacity increased by 48000 Cum	60 + farmer's 120+Acre Area of Agri land can be Irrigated
2	Recharge Borewell	21	Reduce Salinity ingress , and preventing water run	150+ farmer's 260+ Acre Area of Agri land for Irrigated
3	Pipe Culvert at Checkdam at Bhujpur	1	prevent water runoff into sea side.	35 farmer's 120+Acre Area of Agri land can be Irrigated

*** Funded by -Mundra Petro chem Limited**

Impact

- **483** Total area covered (Acre)
- **335** Total Farmers benefitted (No)
- **7%** TDS Reduction
- **7.2%** Increase Revenue %
- **1150** Reduce in health expenses Monthly

Environment Sustainability

Vruksh Se Vikas – Massive Drive

Since 2014, we has embarked a transformative journey to execute a wide range of tree plantation drive in collaborating with local communities and forestry departments .

1.Miyawaki Forest Development: Native species planation In the 2 acre area at Nana Kapaya village creating a flourishing mini-forest with 5,508 trees,..

2.Massive Public Plantation Drives: Barren spaces were transformed into lush green havens through our massive public plantation drives. One notable example is the Bhupur Visri Mata Temple, where 25,000 trees were planted.

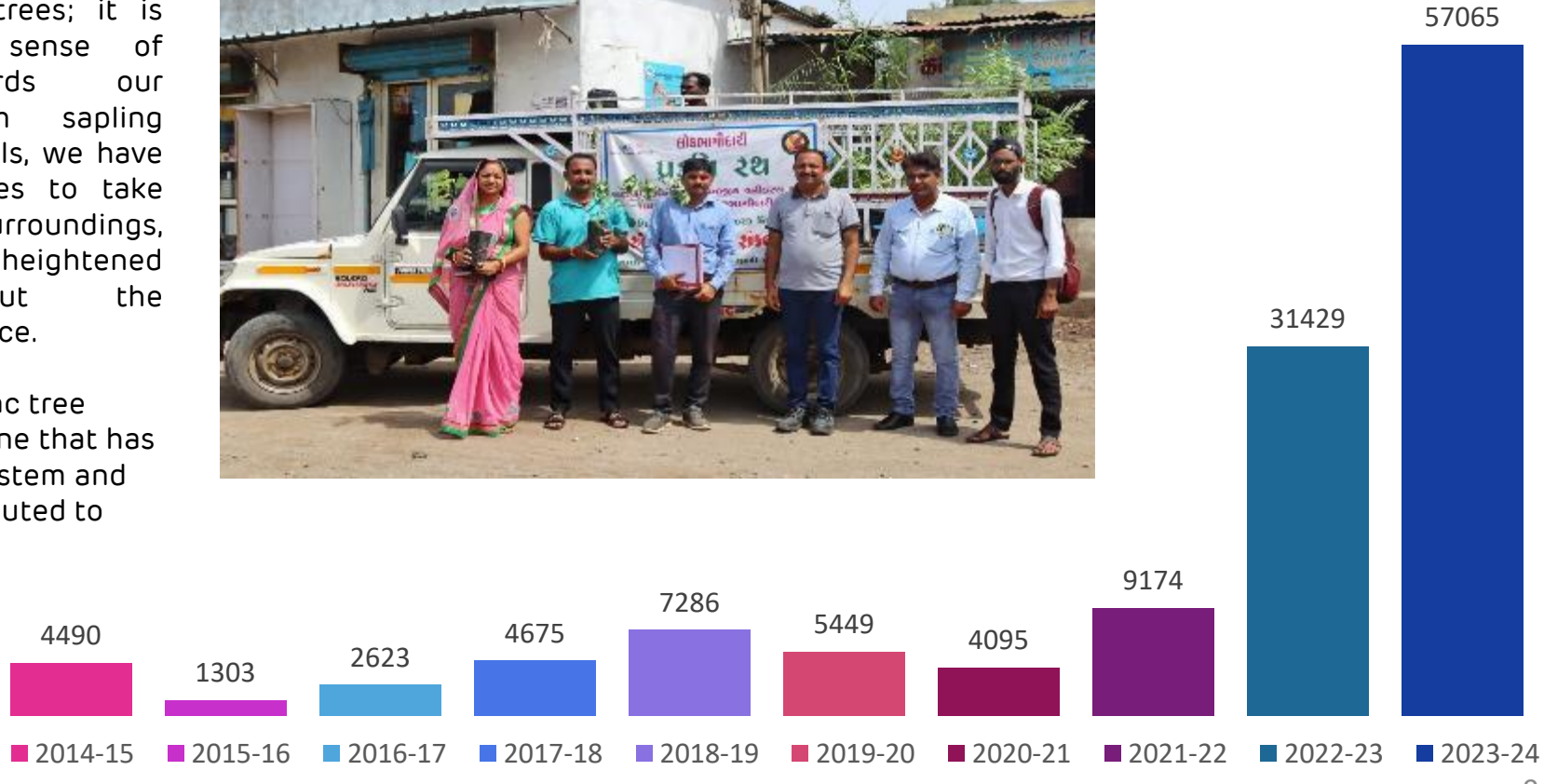
Environment Sustainability

Vruksh Se Vikas – Massive Drive

1.27 Lac tree plantation

Prakrurath: This initiative goes beyond just planting trees; it is about fostering a sense of responsibility towards our environment. Through sapling distribution to individuals, we have empowered communities to take ownership of their surroundings, leading to a heightened consciousness about the environment's significance.

Till the date Total 1.27 Lac tree plantation have been done that has enriched the local ecosystem and also significantly contributed to carbon sequestration



Environment Sustainability

Home Bio Gas

Home biogas systems, adept at converting organic waste into renewable energy, present a sustainable and eco-friendly solution for cooking. We have started this project in 2020, with farmers contributing 10% towards the cost, that persisted till 2022. Since then, we have scaled our initiative by aligning with government home biogas schemes to amplify the reach and adoption of this eco-friendly technology in wider rural regions.

The deployment of home biogas has been particularly transformative for women, offering a healthier, smoke-free cooking environment reducing greenhouse gas emissions.

Current year we process to facilitate 258 Gobardhan unit through Gov.

Phase	unit	Unit Cost In Rs.	AF Support in Lac	Beneficiaries Contribution in Lac	Gov. Convergence in Lac	Total in Lac
Phase -1	125	23200	29	3.75	0	32.75
Phase -2	100	42000	42.0	5.0	0	47
Phase -3	100	42000	0	5.0	37	42
Phase -4	258	42000	6.45	6.45	95.46	108.36
Total	**583**	**149200**	**77.45**	**20.2**	**132.46**	**230.11**

*** Funded by -Mundra Petro chem Limited**

Environment Sustainability

Mangrove Biodiversity

In 2010, we initiated a mangrove plantation project at Luni coastal belt, ultimately leading to 162 hectares of dense mangrove forests. Subsequently, we expanded our efforts by planning and implementing a multi-species mangrove plantation across an additional 20 hectares. These plantations are diligently maintained and continually monitored. Notably, these forests have evolved into a thriving habitat for various marine and migratory bird species, enriching the local ecosystem..

Since PhD scholars and students frequently visit this area for study. we plan to establish it as a Center of Excellence, serving as a hub to create awareness among students and facilitating research activities for scientist

• Spices of Mangroves	• Coastal Spices as habitat preservation	• Hector Avicennia marine plantation	• Hector Biodiversity park
4+	**60+**	**160+**	**20+**

*** Funded by -Mundra Petro chem Limited**

Mangrove Plantation Work Detail

Sr. No	Year	Number	Men days	Remarks
1	2011-12	50000	3000	
2	2012-13	125000	6943	
3	2013-14	60000	1480	
4	2014-15	125000	6501	
5	2015-16	65000	3533	
6	2016-17	20000	3125	
7	2017-18	100000	3666	
8	2018-19		7539	Algal Removal work
9	2019-20		6261	Algal Removal work
10	2020-21		4830	Algal Removal work
11	2021-22	97000	5200	
12	2022-23	100000	4445	
	Total	**742000**	**56523**	

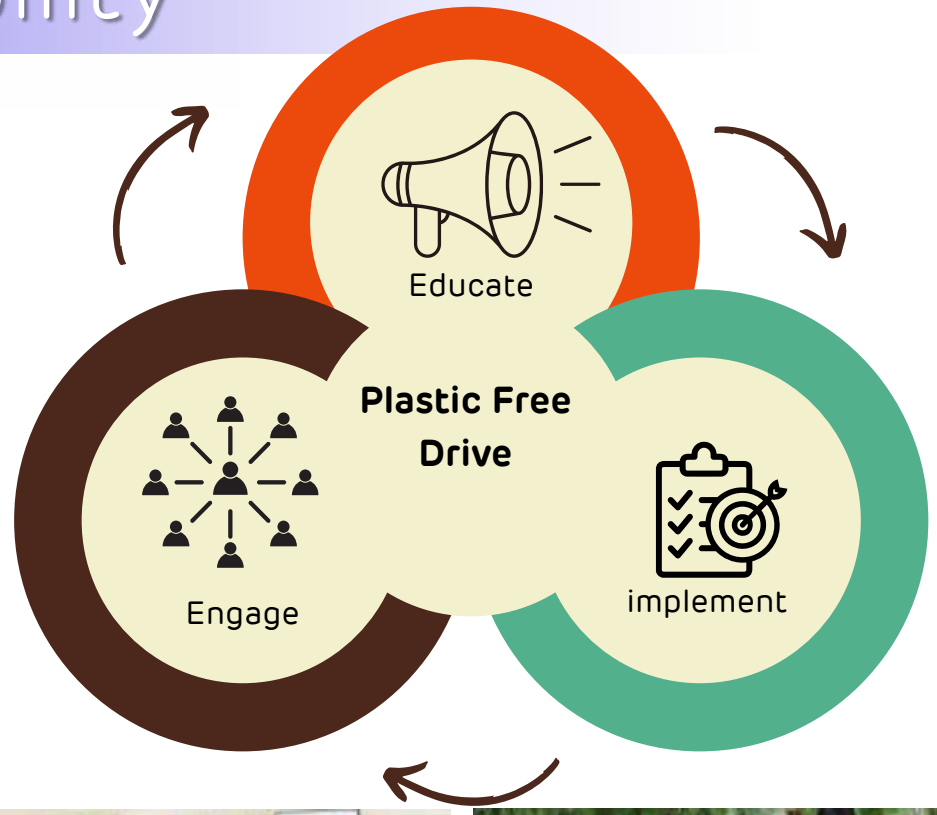
Environment Sustainability

Plastic free Drive

Objective: The central aim of the Plastic-Free Drive is to empower and enlighten students as key agents of change, enabling them to disseminate awareness and instill the practice of reducing single-use plastics within their community.

1.Educate: Spread awareness about the harmful effects of plastic on the environment, marine life, soil health, and human well-being.
2.Engage: Mobilize community members, especially the youth and family members to actively participate in plastic waste reduction activities.
3.Implement: Introduce sustainable alternatives to ensure proper disposal and recycling. As of now we supply to APSEZ plastic waste management plant.

Outreach :-
10000 Students of Primary Schools.
990 Students of Secondary Schools of Mundra Block.



* Funded by -Mundra Petro chem Limited

Environment Sustainability

Natural Farming

Natural farming is an urgent need of the hour, We have initiated a comprehensive approach to promote natural farming practices through a variety of activities aiming to minimize pesticides and chemicals uses ,lead to produce , nutritious, chemical-free produce which is benefitting both farmers and consumers by providing healthier and more sustainable food options as well as plays significant role to flourishing environment and balanced ecosystem.
Funded By GPVC- Mundra Petro chemical limited

250 Farmers	05 exposure	857 Farmers	257 Gobardhan	35 Farmers	Rs.7.47 Lacs RG
• **Awareness Sessions at Village Level:** Spreading awareness on natural farming benefits and address their concerns.	• **Hands-On Training & Exposures :** Arranged Workshop and training to emphasizing on real-world techniques.	• **Link with Government Scheme**: facilitation of govt. Cow Nurturing scheme to promote eco-friendly farming practices.	• **Bio-gas Support:** Link with Gov Gobar Dhan Biogas Unit Nutrient-rich slurry serves as an essential organic fertilizer for natural farming	• **Natural Farming Certification Process** to obtain natural farming certification through the Gujarat Organic Product Certification Agency (GOPCA) for the 35 Farmers who are Members of Raj shakti Sahakrai Mandali.	• **Marketing Assistance:** Provide platforms and resources ensuring fair prices and broader consumer reach.

UTTHAN – FLAGSHIP EDUCATION PROGRAM OF ADANI FOUNDATION

Project Utthan, launched by the Adani Foundation in 2018–19, is an innovative intervention to enhance students' learning capabilities, provide facilities to schools, and achieve better learning outcomes at the grassroots level. The project adopts government primary schools to convert it as model schools, tutors' progressive learners, introduces English as a third language, and conducts various academic and co-curricular activities to enhance quality of education. It also works on staff capacity building and engages educators, SMC members and parents, especially mothers, to improve children's basic literacy and numeracy skills.

*** Funded by – Kutchh Copper Limited**

- Adopting government primary schools
- Main streaming Progressive learners
- Enhancing Learning Outcomes
- Arresting dropout rates
- Introducing English as a Third Language
- Enabling Joyful Learning Spaces
- Collaborating for teachers' capacity building

UTTHAN OBJECTIVES

- Strengthening Government primary schools
- Appointing an Utthan Sahayak in each school who acts as a catalyst and facilitator
- Providing resources and facilities
- Literacy, numeracy and skills for life
- Government school teachers' capacity building
- Special focus on 'Priya' Vidyarthi's (progressive learners)
- Training students for Competitive exam

UTTHAN REACH

10499	999	250	150	150	3000
69	8	2	5	5	2
Primary School	High School	Adani Evening Education Centre	Adani Competitive Coaching Centre	Adani English Coaching Centre	IT On Wheels

PROGRESSIVE LEARNER

2541 Progressive Learner; Assessment of 6314 Students (3 to 7 Std.)

MOTHERS MEET

400+ Mothers Meet : 10000+ Mothers Joined.

COMPETITIVE EXAM

877 Students preparing Competitive Exam. 354 JNV, 273 PSE & 250 NMMS

ENGLISH : THIRD LANGUAGE

5000+ Facilitating English from Classes 1-4.

LIBRARY ACTIVITY

72000+ Book Issued : 924 Library Activities, OASIS 200+ Reading Workshop

IT ON WHEELS

4170 students Empowered with digital skills & knowledge.

SUMMER CAMP

4300+ students of Primary & High Schools participated .

Our other various initiatives include:

- ✓ Kutch University has conducted an impact assessment of IT on Wheels, which has been evaluated and certified by the DEO Office.
- ✓ Exposure Visit of Project officers from three different locations to learn about the best practices.
- ✓ Computer Classes in High school : 200 Students took advantages of this computer classes.
- ✓ Career Counselling in 8 Utthan High Schools.
- ✓ Plastic Bag Free village workshop in all High schools.
- ✓ Remedial classes during summer break.
- ✓ Day Celebration : World Book Day, World Environment Day, National Reading Day, International Yoga Day, National Plastic, Bag Free Day, Raksha Bandhan, Independence Day & Celebration of Sports Day.
- ✓ Planned various Capacity Building Program (CBP) & Exposure visit for Utthan Sahayak & Students.
- ✓ Achievements : • Utthan sahayak motivate mothers to open an account of Sukanya Samrudhi Yojana • Utthan supported Taluka levels Kala Utsav in Primary & High Schools. •Utthan Sahayak supported Taluka level Science Fair. •06 students selected in District Level Sports School (DLSS).

Utthan Aligned With GoI & GoG

NEP 2020 | Samagra Shiksha | Nipun Bharat | RTE

Utthan in High Schools

8 High school

2 teachers hired, (1 Math's & Science, and 1 English)

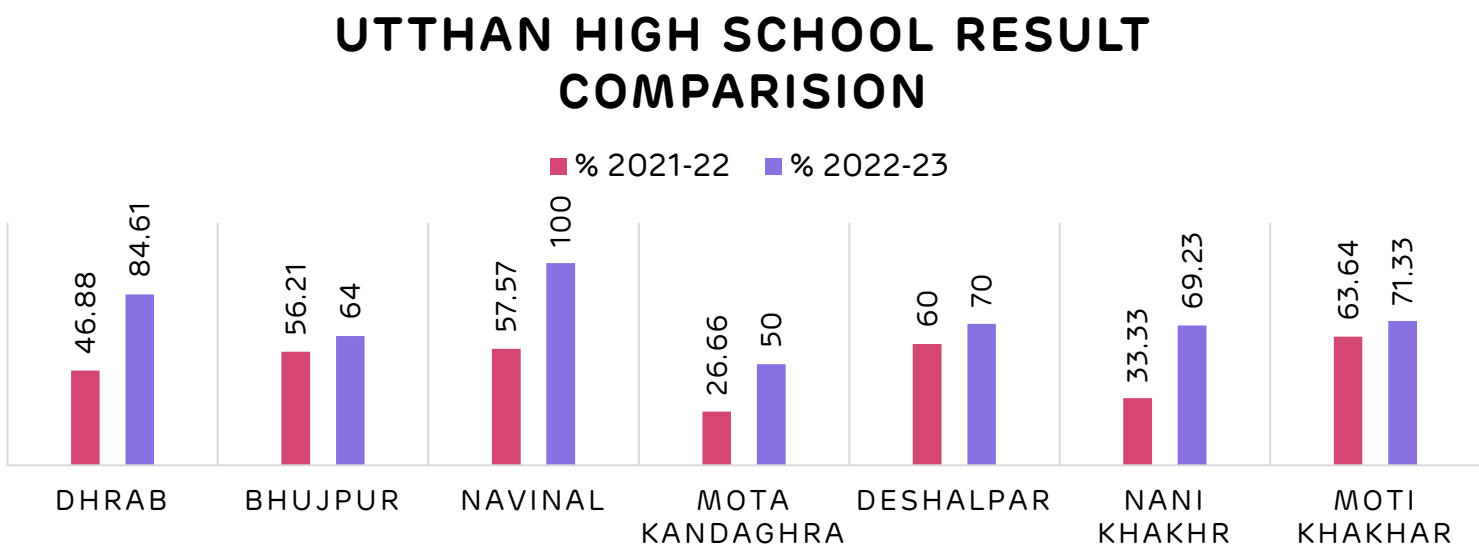
Goal is to improve the students' fundamental skills in these subjects.

2 AEEC

help students improve their academic performance by revising the syllabus and clearing their doubts

Our trained teachers and volunteers provide personalized guidance and feedback to the students in a conducive learning environment these programs will boost the confidence and skills of the students and prepare them for a brighter future.

Good Board Result



Adani Education Evening Centre is running in 2 centers, where Utthan Sahayak teaches Maths, Science & English for an additional 2 hours. This has had an impact on the board results.

Adani Vidya Mandir, Bhadreshwar

Empowering Communities through Free and Compulsory Education

Adani Vidya Mandir, Bhadreshwar, was established in June 2012 with the goal to have access of quality and cost free Education with essential amenities like food, uniforms, and books, to Financial Weaker community children of the Mundra Block.. The school boasts excellent infrastructure and resources necessary for the holistic development of each student. Children are admitted to the school form Senior Kg to 10th Standard.

Few notable points:

- We are empowering economically disadvantaged families through free and quality education
- We are fostering an environment of academic excellence.
- Pioneering Excellence: The First Gujarati Medium School in Gujarat Accredited by NABET
- Over 600 Students Learning Each Year in AVMB
- More than 35% of enrolled students in AVMB come from the Fisherfolk community.

- Work shop was conducted on Mental Health and behavioral change
- AVMB got 1st rank in Vaadan, Gayan and drawing in Kala Maha Kumbh competition and selected for Next block level competition
- AVMB selected for district level Kho-kho Match competition organized by SGFI-School Game Federation of India,
- 2 students selected for District Level Athletic Competition

AVMB STD 10 – SSC Board Result (2022-23)		
Sr. No.	**Grade**	**Student**
1	Above 80%	8
2	Above 70%	8
3	Above 60%	6
4	Above 50%	0
5	Above 40%	1
	Total Students	23

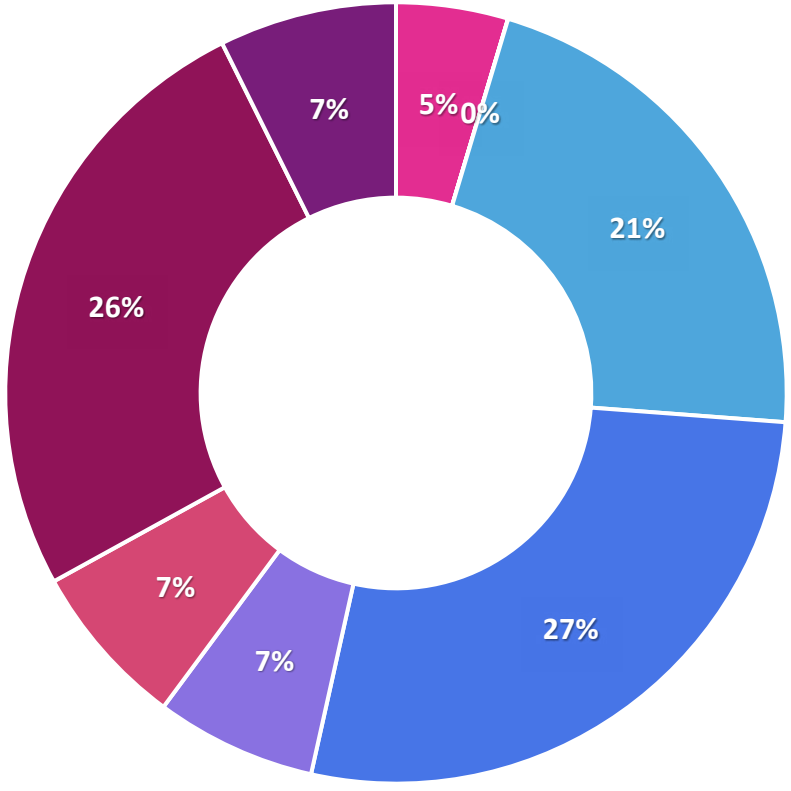
100% Success: Adani Vidya Mandir Bhadreshwar's Remarkable Achievement in Gujarat Board Standard 10th Examination.

Community Health

Quality healthcare is not just about addressing illness; it's about providing everyone an equal opportunity to not just long life, but also rich in quality.

At the Adani Foundation, our steadfast commitment is to offer accessible and affordable healthcare. Through Our diverse healthcare initiatives which are dedicated to cultivating a healthier society to the develop strong and vibrant nation."

CH MIS Data Month April to Sep - 2023		
Sr. No.	**Projects**	**Total**
1	Medical Supports	**1007**
2	Diaylsis	**58**
3	Mobile Van	**4690**
4	Rural Clinice	**5939**
5	Health Camp	**1448**
6	Speciality Health Camp	**1489**
7	Ayushman Card	**5584**
8	Blood Donation Camp	**1598**
Total		**21757**



29-Villages
31-MHCU
Stoppage
7-Rural clinic

Our Mobile Health Care Units and Rural Clinic Services have made significant strides in delivering essential healthcare to remote rural areas and underserved populations Since the inception.

MHCU Outreach :- 29 Villages -31 Stoppage
Rural Clinic:- 7 Villages Of Mundra And Mandavi Block

SROI 1:541 (Ref.Soulace impact assessment report)

- **10629 individuals** benefited from the services.
- **35 villages** villages covered.
- **20 %** average savings on healthcare-related costs.
- **25%** People are aware and become health Conscious

Medical Support Poor Patients.
Adani Foundation's Medical support program is a beacon of hope for the less fortunate, offering aid for a diverse range of ailments, from kidney problems to heart conditions and beyond at Our Adani Hospital Mundra.

In the critical cases, after stabilizing patients we refre them to GKGH, Bhuj, for advanced treatment with ened to end co-ordination

Live Impacted -1008 People

Community Health

Dialysis Support:
In Mundra, where water quality challenges contribute to a higher prevalence of urinary infection lead to kidney failure cases. Our Dialysis Support Program is designed to assist those in extreme need and Financial weaker.
The program is not only alleviating their financial burden but also enabling them to lead healthier lives.

Live Impacted:- Two Patients 58 Times

Our health camp initiatives are designed to bridge healthcare gaps in underserved regions, offering a holistic approach for community well-being with combining Preventive and Precautionary measure through Awareness session , Health check Camp, screening and treatment.

The "Cataract-Free Mundra"
The initiative is a dedicated effort to eradicate cataract-related vision impairments specially focused on Senior citizen through Meticulous planning as below.

Outreach:- 9 Villages
Lives Impacted:-473

- Comprehensive Eye Screenings at Village level
- Cataract Surgeries to GKGH ,Bhuj
- Post-Operative Care and Follow-up.

As well as we arranged gynecological and ophthalmic and general health camp at Village level in collaboration with KCL limited, GKGH Bhuj, and THO Mundra,

CH MIS Data Month April to Sep - 2023

Sr.	Projects	Total
1	Health Camp	1448
2	Speciality Health Camp	1489
3	Blood Donation Camp	1598
	Total	**4535**

*Funded by – Kutchh Copper Limited

Community Health

Ayushman card facilitation

Ayushman Bharat PM-JAY is a global healthcare milestone, offering an unprecedented health cover of Rs. 5 lakhs per family annually for secondary and tertiary care. Adani Foundation has started 100% Ayushman Card coverage in all villages of Mundra in coordination with the District Health Department.

Villages -25 Villages
Live Impacted:- 5,584 Ayushman cards have been Issue.

25 Village
5,584 Ayushman cards Issue

Women Health & Well Being
Outreach-18 Village
Lives Impacted:-2230+ women.

- **Gynec Health Check-ups:** Conducted thorough check-ups, with GKGK referrals when necessary.

Sustainable Livelihood Development

"Raj Shakti Prakrutik Kheti Sahkari Mandali

The Adani Foundation has taken a proactive step by organizing awakening and awareness sessions to promote natural farming practices in Mundra block Villages. These efforts led to the formation of the "Raj Shakti Prakrutik Kheti Sahkari Mandali," comprised of 35 dedicated farmers who are deeply committed to natural farming.

We have started green Carnival to provided a platform for these farmers to sell their agricultural produce in our two colonies in Mundra. Encouraged by positive feedback, the farmers have set-up a organic Agri produce shop in Mundra, It serves as an inspiration for others to embrace eco-friendly agricultural practices. Now 302+ farmers are collaborated with Mandli.

Previously, these farmers used to sell their produce in bulk to vendors. Now, they are able to sell directly to consumers, leading to a 35% increase in their income. Furthermore, they have applied for the "GOPCA" certificate from the Gujarat Organic Product Certification Agency, highlighting their commitment to organic farming practices.

They have started Collective organic farming in the 200 acre of agri land with proper fencing and technique.

Rajshakti Prakrut sahakari Mandali had Opportunity to meeting with honorable Governor of Gujarat Achrya devvrat at Gandhinagar on 30 August. As well as had exposure to Gautirth vidhyapith Bansi ghar Gaushala,Ahmedabad.

Sustainable Livelihood Development

Dates Restoration

In the aftermath of the devastating Bipor Joy cyclone, our farming community faced a severe setback as numerous Date, Mango, and other fruit plants were damaged and uprooted. These plants, which served as a vital source of income for farmers, were left in shambles.

To address this crisis and provide a ray of hope, we embarked on the Dates Restoration Project in collaboration with Krishi Vigyan Kendra (KVK) and other agricultural experts. This project aimed to rejuvenate and revive the fallen Date plants.

As of the current date, 615 Date plants have been successfully restored. These plants are now on the path to recovery and are expected to bear fruit in the upcoming season this will providing significant financial relief to farmers.

Kitchen Garden Kit

We have ve supported vegetable kitchen garden kits to 500 farmers with the aim to enable them to grow fresh and nutritious, chemical-free vegetables. This will enhance their food security and promote self-reliance.

Tree Restored : 500 Unit

Each Date trees is projected to yield approximately Rs. 25,000, Total Yield in Next Season:-Rs.1.53 Cr.

* Funded by – Mundra Petrochemicals Limited

Sustainable Livelihood Development

Fodder Support

Our Fodder Support Program is dedicated to assisting our neighboring villages during the challenging seasons of summer, drought, and crop failures. Through this program, we have provided a significant amount of Green and dry Fodder to ensure the well-being of both the communities

Grassland Development Program
We have started Grass land development with a primary objective to create a self-sustaining village by converting common pastureland (Gauchar) into fertile and productive grasslands to ensure a reliable source of fodder for the community, especially during challenging times.

Total area :- 213 acres of gauchar land has been cleaned and allocated for Grass land development with strong Community Contribution and Mobilization.

Villages : Zarpara ,Siracha, Gundal , Kukadsar
Out put:- Cattle relayed for one Month due to fodder Production

Cattle Health camp
we had arranged Cattle Health Camps, in close coordination with Government Veterinary doctors and the Animal Husbandry Department, dedicated to ensuring the crucial veterinary care to a significant number of cattle, effectively addressing their immediate health needs. To date, we have successfully treated more than 500 cattle, ensuring their health and vitality.

799413 Kg Dry Fodder Support

2353303 Lac Kg Green Fodder Support

24 Beneficiary Villages

16000 Cattle benefitted :-

Sustainable Livelihood –Fisherfolk Community

Education

Vehicle Transportation Facilities
We extend vehicle transportation services to school-going children from Luni and Randh Fishermen Settlements to the AVMB School, Bhadreshwar Similarly, we ensure for Juna Bandar Fisherfolk Students to the nearest Government School and enable them to school for regularity and easy to reach school.

Funded By AF - 165 Students
Funded By - 53 Students

Education Kits Support
Education Kits including notebooks, guides, and bags, to fisherfolk students studying in 9th to 12th standard to enhance their learning experience

Funded By AF - 15 Students
Funded By GPVC - 42 Students

Outcome

- Increased Attendance- 75%
- Enhanced Learning: 20%
- Parental Engagement:- 25%
- Cultural Shift:-10%

Educational awareness sessions were conducted in four Fisherfolk Vasahat of GPVC Villages to highlight the importance of education, with a particular focus on promoting girl-child education.
Primary Schools - 445 Students
Secondary Students - 42 Students

Youth employment
Our main objective is to offer sustainable employment opportunities to the local fishing community in APSEZ Mundra. We bridge the gap between industries and Fisherfolk youth by facilitating job placements.
Currently, we have successfully engaged a total of 12 Fisherfolk youth in this endeavor.

Scholarship Support
We are deeply committed to empowering the future of fisherfolk communities through education. To this end, we provide scholarship support to 30 deserving students, covering their actual school fees. In our unwavering commitment to promoting gender equality and advancing girl child education, we extend 100% fee support to female candidates and 80% to male candidates."

*** Funded by – Mundra Petrochemicals Limited**

Sustainable Livelihood –Fisherfolk Community

Cement Roof Sheet Support

fisherfolk Home were significantly damaged by the Bipor Cyclone. In response to that we provided 2696 cement sheets to 336 fisherfolk households of Juna Bandar, Luni, and Randh Bandar to support their recovery."

Potable water Distribution

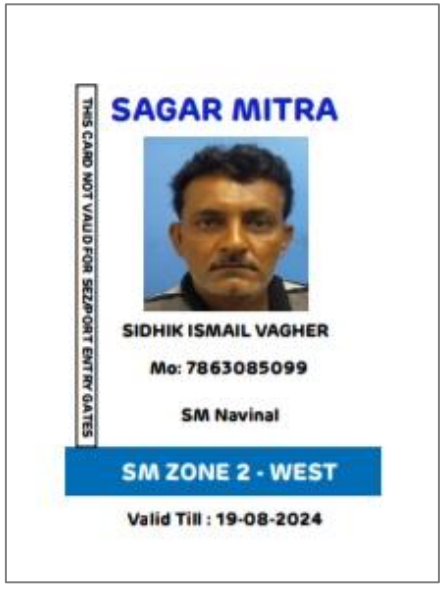
Providing access of potable Drinking water Facilities to Nine sherfolk vasahat on Daily bases, either By Water tanker or Linkage with Nearest Gram panchayat.

More than 5000 Fisherfolk Population are getting benefit which impact on their health and efficiency.

Sr. no	Vashat Name	Population	Water Quantity in KL
1	Luni Bandar	401	15000
2	Bavdi Bandar	535	20000

Sagar Mitra

We have introduced the 'Sagar Mitra Card' to simplify access for Fisherfolk to specific fishing routes within APSEZ. This digital card is connected to a digital punching machine located at designated entry points. Initially, we have implemented this system for Navinal Fisherfolk, and so far, we have issued a total of 57 Sagar Mitra Cards."



Women Empowerment

Project Saheli

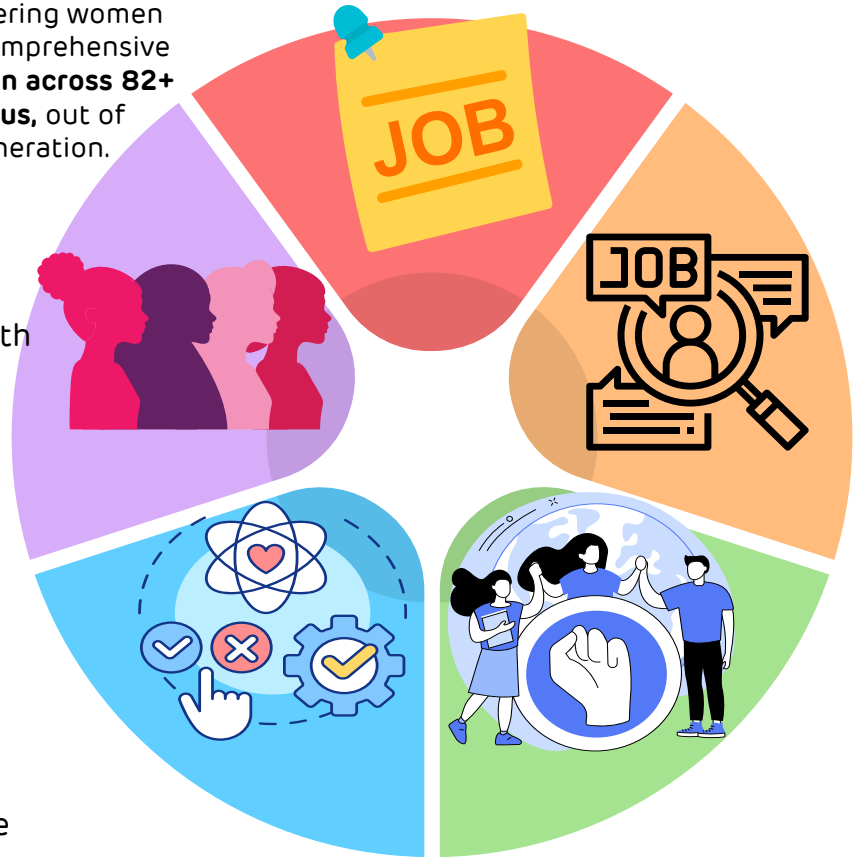
- Kutch Copper Limited is dedicated to empowering women both financially and socially. To that end, a comprehensive training program that has reached **850 women across 82+ Self Help Groups with 30+ Lacks saving Corpus,** out of which 5 groups have outstanding revenue generation.

Self Help Groups

- 82 Self Help Groups in coordination with National Rural Livlihood Mission.
- 850+ Members
- 31 Lacs Saving Amount Corpus

Making SHG Self Reliant

- 16 SHG are on path ways of self reliance.
- Various handicraft, dry and fresh food making, stitching, tie and die etc.
- 160+ women - Monthly average income @ 7000 of each member oer Month



Job Sourcing - Govt

- 11 Women supported for application and process of Gram Rakshak Dal, Bank Sakhi , Bima Sakhi and Professional Resouce Person.
- Average income 4200 Per Month

Job Sourcing - Private

- Coordination for Job by Unnati Portal with Adani Group company companies, Britania, B Medical and Emphazer company
- 387 Women supported till date for job sourcing of 18 villages
- Average income 10200 Per Month

Social Empowerment

- 2 Livlihood Enhancement Training through RSETI
- Financial support for business set up
- Legal rights and domestic violence workshops
- Family counselling for Job sourcing

*** Funded by – Kutchh Copper Limited**

Women Empowerment

Menstrual Hygiene Awareness

Objective :-
To educate and empower rural girls and women about menstrual health, break down negative social views on menstruation, supply to enhance their overall health, education, and empowerment."

18 Villages

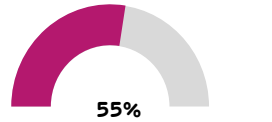
1587 Women participated

494 School girls

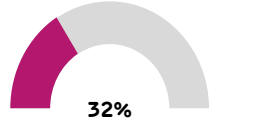
Till date 36% women had never used sanitary Napking single time now they started using due to our intervention. This will reduce UTI @ 22%. As our sample survey

Process

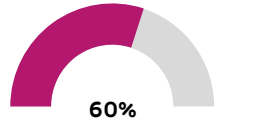
- Conducted Awareness Session at Village level
- Awareness Session at Schools
- Provide Sanitary pad
- Feed back and Evolution



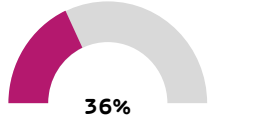
Women Never heard about Menstrual hygiene



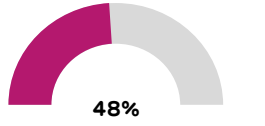
Women faced mild infection in life-time



were using cloths on regular basis



Women had never Used sanitary pads



Women had no information about UTI

Source :Women Sample Survey Report July 2023

*** Funded by – Kutchh Copper Limited**

Women Empowerment

Millet Program

Village Name	Women Participated	Millet dish prepared
Bidada	67	22
Moti Bhujpur	61	12
Mundra	50	20
Mota Bhadiya	50	22
Mandvi	50	24
Siracha	40	14
Tragdi	24	13
Nani Bhujpur	37	23
Kandagra	36	15
Navinal	36	24
Nani-Khakhar	36	18
Nana Bhadiya	25	12
Deshalpar	33	17
Total	**545**	**236**

*** Funded by – Kutchh Copper Limited**

International year of Millets-2023

With the vision of promoting the culture touch, awareness, benefits and consumption of millets in Mundra, we conducted Millet competition in Nine villages.

Community Infrastructure Development

Adani Foundation is dedicated to enhancing the quality of life of communities under the **Community Infrastructure Development Initiative**. It acknowledges the government's role in providing fundamental infrastructure facilities and strives to bridge gaps, ensuring its activities are tailored to meet specific needs and responsive to grassroots requirements. Some of the initiatives include constructing check dams, deepening ponds to augment water storage capacity, infrastructure support to fisherfolk communities, and facilitating access to clean drinking water for villagers.

GPVC

Restrengthening & Desilting of Check dam – 720+ Benefited

Road Renovation and Civil Maintenance Work at Fisherman Vasahat – 600+ Benefited

Construction of Pipe Culvert – 400+ Benefited

River Cleaning and JCB Support - 2250+ Benefited

10 JCB Support for 45 days to Farmers for Cleaning Vadi vistar after cyclone – 1650+ Benefited

6 Percolation Bore well Recharge – 4000+ Benefited

KCL

4 location Pipe Support – 4800+ Benefited

Renovation of High School at Zaarapa – 2200+ Benefited

Renovation of Approach road Vadi Vistar at Mota bhadiya village.- 7200 Benefited

3 Villages - Renovation of Godown and Gaushala Shed

Community Infrastructure Development

377 - AC Roof sheet support to Fisherfolk Vasahat – 1700+ Benefited

2 Development of Common Gathering flooring work – 4000+ Benefited

195 Stall – Vegetable market– 900+ Benefited

Solar Panel System at Mundra – 600+ Benefited

Maintenance, Fencing & Material Support - 30+ Benefited

Renovation of Shed at Shekranpir Bhopavandh - 2000+ Benefited

Work done during Biparjoy Cyclone

Cyclone Biparjoy caused huge losses in Mundra and nearby villages. Adani Foundation's worked for relief and recovery with Panchayat & Government body. More than 17,000 people benefited from various efforts. Adani foundation consider this as ethical responsibility and a source of satisfaction. Stakeholders and government bodies also appreciated the efforts.

Meetings with Taluka & District government officials to facilitate assistance and coordination with local authorities.

Connect With Government & community

Health teams and ambulances on standby in case of emergency.

Health Team

Reached to more than 10000 people by Awaz de to aware all, specially for fisherfolk settlement.

AWAZ DE

4500+ Workforce migration with basic amenities.

Relocate to a secure location

100+ Team member distributed for each taluka/Villages as per requirement

Duty delegation

Monitoring

Tracking the cyclone's progress by AF team member.

Connect

Team members in directly touch with 10 Temporary housing & 60 Villages.

Government

Co- ordinating with Government organizations from Talati to Collector.

Panchayat

Co-oridnate with Gram pancahayat in case they need any emergency support.

Pre-cyclone preparation

- Team distribution
- Workforce migration
- Basic amenities
- Awareness efforts.
- Meetings with government.

During cyclone

- Food and shelter provision
- Fodder support
- Awareness messages
- Vehicle support.
- Coordination with Panchayat

Post-cyclone relief

- Temporary housing
- Food packets
- Excavator support
- Transfer of affected individuals.
- Provision of fodder

Some Glimpses of BiporJoy Relief Work

PROJECT UDAAN

202 institutes visit

5 Corporate visit

13226 Participants

The Project Uddan is an educational initiative led by the Adani Foundation, with the overarching goal of inspiring students to think big through a comprehensive educational mission. As part of this initiative, educational tours are organized, allowing school and college to visit various Adani Group facilities, including Adani Port, Adani Power, and Adani Wilmar refineries at different locations. These tours provide valuable insights for students to aspire for great achievements in their own lives. Moreover, the project enhances students' learning experiences and encourages them to envision themselves as future entrepreneurs, innovators, and leaders.

During six month Udaan project had conducted 202 institutes visit and 5 corporate visit. Total 13226 participants (7688 Male Students, 4861 Female Students and 677 Faculties).

Adani Skill Development Centre

Total Admission in Both centre 2023-24

Mundra

Courses	Female	Male	Total	Revenue Generated
Digital literacy	4	3	7	4130
Hydrography	-	3	3	15,000
Advance Excel training	-	18	18	18,850
RTG Crane Operator	-	15	15	1,50,000
Mud work	30	-	30	Fees Received on F.Y. 2022-23
Solar Technician	-	-	Training Completed on F.Y. 2022-23	42260
Total	**34**	**39**	**73**	**2,30,240**

Bhuj

Courses	Female	Male	Total	Revenue Generated
Digital literacy	34	10	44	25960
Hydrography	-	9	9	45,000
EDP – Tie up with CED	09	21	30	14500
GDA	14	09	23	1,35,280
5 S	-	01	01	590
Interview Skills	-	01	01	00
Industrial Safety	-	01	01	3540
Total	**57**	**52**	**109**	**2,24,870**

Adani Skill Development Centre, Mundra

Digital Literacy

Digital literacy training was provided to seven students at Bhujpur Government High School, and as a part of the DEO project, certificates were distributed .

RTG Crane operator

RTG crane operator training is successfully given to 15 candidates.

Beauty therapist

The distribution of certificates for beauty therapist training celebrated the successful culmination of the program

Mud work

After the mud work training in Dhrab Village, a certificate distribution ceremony was held, benefiting a total of 30 female participants.

Advance Excel training

Eighteen employees from Sumitomo India Ltd. Co. underwent advanced Excel training, significantly boosting their skills.

Adani Skill Development Centre, Bhuj

Digital Literacy

ASDC has partnered with Tally as the Knowledge Partner for its Tally - GST course. The first batch, consisting of 16 students from Bhuj location, achieved a remarkable 100% pass rate.

Real-time exposure

Twenty-five Nursing Assistant trainees gained valuable real-time experience in Emergency services through interactions with 108 Ambulance services and an industry visit.

We offer on-the-job training to nursing students to build their confidence and prepare them for delivering high-quality patient care.

Hydrography training

Provided practical Hydrography training to nine participants.

Entrepreneurship Development Programme (EDP)

Conducted EDP training in collaboration with CED, Gandhinagar, for a total of 30 trainees.

Placement

We successfully hosted a placement drive at our center on April 23rd, where 11 out of 15 candidates secured positions at KK Patel Hospital with an impressive average monthly salary of Rs. 17,000.

AKBPTL - TUNA

ADANI KANDLA BULK TERMINAL PVT LTD -TUNA

Potable Water Distribution
Potable water (17.5 KL per Day) Distribution to Vira and Dhavlvaro Bandar on regular base through Water tanker Regularly through **AKBTPL and GWIL**

Fodder Support
Support of Dry & Green Fodder to Tuna and Rampar Village and Gaushala during Scarcity. That impacted on Cattle health and Milk Productivity.

Total 7410 Kg Dry and 447473 Green Fodder Distribution 1228 3 Villages1228.

Prakrut Rath –Tree Plantation
Total 3000 Tree sapling were distributed to individual And 500 tree have planted at Common place and school with ensure their responsibility for watering and caring.

The paver block work at Vandi and Tuna Common Gathering which enhances their usability and convenience for the community. During the monsoon season, certain areas of Wandi village get waterlogged , .we took measures to clean and address the issue Immediately.

AGEL-Dayapar

Dayapar Adani Wind Energy project is a large-scale wind power project located in the Kutch district of Gujarat, India. It is one of the biggest wind farms in the country, with a total capacity of 575 MW. The project was developed by Adani Group and Inox Wind, it project was commissioned in April 2019 and supplies clean energy to various states in India through power purchase agreements with Maharashtra State Electricity Distribution, NTPC, PTC India

Sr. No.	CSR Activities	Beneficiaries	
1	Ayushman Health card Camp	86	Nana Valaka & Mota Valka
2	General health camp	267	Nana Valaka & Mota Valka Ghadani, Paneli
3	Animal Health camp	1,500+	Gahadani
4	Tree Plantation	5,435	AGEL Surrounding Villages

Village Name									
Village Detail	Mota Valka	Paneli	Ghadani	Ludbay	Amara	Muru	Deshalpar	Haroda	Total
Total Household	224	87	357	278	700	218	351	120	2335
Population	926	520	2224	1509	1913	1329	2025	718	11164
Male	473	261	1110	807	943	696	1026	379	5695
Female	453	259	1114	702	970	633	999	339	5469
BPL	79	34	155	83	180	123	138	24	816
ICDS-Anganwadi	2	1	2	1	2	1	1	1	11
Children Number	180	18	112	35	65	35	32	15	492
Primary School	2	1	2	1	2	1	1	1	11
Students	298	61	242	145	325	143	237	40	1491
Higher secondary School	No	No	No	No	1	No	1	1	3
Students					35		63	20	118
Disable Person	3	3	11	7	5	2	6	5	42
Pond/Chackdams	9	12	8	8	8	6	4	7	62
Two Wheeler	125	40	100	37	80	47	117	40	586
Four Wheeler	25	10	30	15	30	21	38	3	172
Loading Vehicle	1	2	1	6	3	7	9	4	33
Cattle Poppulation	3905	672	1937	3911	1375	1250	1375	1250	15675
Cow	100	166	180	100	175	230	80	100	1131
Buffalo	3750	162	367	3756	350	220	325	250	9180
Sheep/Goat	55	344	1390	55	850	800	970	900	5364
Total Milk Production-(Ltr)	1520	1000	1100	1400	514	700	550	600	7384
Dairy	2	1	2	1	2	1	1	1	11
Land Details (Accor)	2112	3009	2914	268	3154	5678	2015	2043	21193
Farming Land (irrigated)	452	447	805	10	914	317	715	450	4110
Non Irrigated	345	300	510	94	720	335	93	110	2507
Gauchar & Other Land	1315	2262	1599	164	1520	5026	1207	1483	14576
Health Facilities									0
PHC	1	1	1	1	1	1	1	No	7
CHC	No	No	No	No	1	No	1	No	2
Drinking Water									
Home connection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Sanitation									
Toilet facilities	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Electric Facilities									
Individual home connection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Women SHG	7	3	8	2	1	5	11	No	37

AGL Khavda

Adani Khavda renewable solar plant is a hybrid power project that will use both solar and wind energy to generate electricity It will be built in the Khavda desert along the Indo-Pak border in Kutch district of Gujarat, having Total capacity of 20,000 megawatts (MW), making it the world's largest hybrid renewable energy park and will be cover an area of 72,600 hectares of waste land[1].

It is expected to play a major role in fulfilling India's vision of generating 450 gigawatts (GW) of renewable power by 2030

Tree plantation:- We distributed 650 tree saplings to primary schools along with an awareness session highlighting the importance of trees.

Ayushman Card Facilitation to Dinara, Khavda, Birndiyari, Gorivalli Villages. Total 311 Card Issued.

We have conducted Primary baseline assessments and created Village profile of 07 villages and identify their specific needs, aspirations, and developmental potential.
Though we have started some entry point activities and Based on Village profile data Initially we will start Project Utthan and Some Health and Livelihood projects.

Village Name								
Village Detail	Mota & Kotada	Kuran	Mota Dinara	Nana Dinara	Khavda	Tuga & Jam Kunariya	Khari	Total
Total Poppulation	5500	1800	7500	4000	11000	3300	3600	36700
Total Family	700	300	3000	2500	800	673	470	8443
SC	NO	YES	NO	NO	YES	NO	YES	
ST	NO	NO	NO	NO	YES	NO	NO	
OBC	YES	YES	YES	YES	YES	YES	YES	
General	NO	YES	NO	NO	YES	NO	YES	0
BPL	35	60	500	300	37	500	100	1532
ICDS-Anganwadi	YES	YES	YES	YES	YES	YES	YES	
Children Number	250	45	350	200	300	300	150	1595
Primay School	YES	YES	YES	YES	YES	YES	YES	
Secondary School	NO	YES	NO	YES	YES	YES	NO	
Higher secondary School	NO	YES	NO	NO	YES	NO	NO	
Above 18 to 30 Yrs: 10th pass	15	200	60	12	40	50	40	417
Disable Person	40	12	100	17	10	15	25	219
Senior cityzone	100	100	100	500	500	80	300	1680
Widow	50	60	60	50	20	30	60	330
Unemployed Youth	200	45	40	20	50	120	100	575
Two Wheeler	150	150	250	50	300	70	200	1170
Four Wheeler	15	50	50	25	80	15	20	255
Loading Vehicle	10	43	50	90	100	57	30	380
Cattle Poppulation								
Cow	3400	400	4000	6000	250	8000	3000	25050
Buffalo	3000	350	3000	300	1500	600	10000	18750
Sheep	200	100	1000	1500	50	360	150	3360
Goat	600	2000	2500	200	800	3300	2500	11900
Total Milk Production-(Ltr)	1500	600	2000	6000	3000	3200	4000	20300
Dairy	2	2	3	4	2	2	2	17
Land Details (Accor)								
Farming Land	1000	2500	12500	3200	741	2000	600	22541
Gauchar	200	4500	2000	1800	100	412	480	9492
Health Facilities								
Sub-PHC	NO	YES	YES	NO	NO	NO	YES	
PHC	NO	NO	NO	YES	NO	NO	NO	
CHC	NO	NO	NO	NO	YES	NO	NO	
Drinking Water								
Home connection	YES	YES	YES	YES	YES	YES	YES	
Sanitation								
Toilet facilities	NO	YES	YES	YES	YES	YES	YES	
Electric Facilities	YES	YES	YES	YES	YES	YES	YES	
Individual home connection	YES	YES	YES	YES	YES	YES	YES	
Women SHG	NO	NO	NO	NO	NO	NO	NO	
Sakhi mandal	NO	NO	NO	NO	NO	NO	NO	

Sanghi Cement

Sanghi Cement, located near Moti ber village of Abdasa block , in Kutch, Gujarat. stands as a notable player in the cement industry. The company's presence in the region has a significant impact on the local economy and community.

We have conducted Primary baseline assessments of sanghi Cement Periphery 10 villages. The primary objective of this initiative is to gain a deep understanding of the socio-economic and environmental conditions of these villages, to identify their specific needs, aspirations, Based on that We will design Comprehensive CSR Projects in the core of education, healthcare, livelihood enhancement, women's empowerment,.

6.6 MMTPA capacity Clinker Plant

6.1 MMTPA capacity Cement Plant

143 MW capacity power plants

Village Name											
Village Detail	Nani Ber	Moti ber	Vayor	Hothaiy	Aakri Moti	Nava Vas	Golay	Pakho	Jadva	Pipar	Total
Total House Hold	137	606	1129	116	227	79	288	39	732	192	3545
Poppulation	478	2205	4027	534	426	215	642	130	254	881	9792
Male	248	1272	2715	266	224	111	316	72	373	429	6026
women	230	933	1312	268	202	104	326	58	359	452	4244
BPL											
0-16 Roster	17	24	39	7	51	13	8	9	12	41	221
0-20 Roster	53	56	76	18	70	20	44	11	25	76	449
others	36	21									57
ICDS-Anganwadi	1	3	4	1	2	1	2	0	1	1	16
Children Number	32	122	284	66	34	27	87	0	31	26	709
Boy	20	80	169	35	22	15	45	0	20	15	421
Girl	12	42	115	22	13	12	32	0	11	11	270
Primay School	1	3	2	1	2	1	1	1	1	4	17
Studnets Number	114	401	407	93	59	21	136	19	141	203	1594
Boy	64	213	219	35	33	11	74	8	72	100	829
Girl	50	188	188	22	26	10	62	11	69	103	729
Secondary School	NO	NO	1	NO	No	No	No	NO	No	No	1
Studnets Number	4	4	55	0	5	0	3	0	8	6	85
Boy	0	0	37	0		0		0			37
Girl	0	0	18	0		0					18
Higher secondary School	NO	NO	YES	NO	NO	No	No	0			0
Arts stream-Students	8	5	18	0	0	0		0	10	0	41
Science Stream	No	0	4	0	0	0		0			4
Agriculture											0
Farmers	55	85	151	35	84	15	63	0	53	43	584
Gruh Udhuog	1	0	0	0	0		0	0			1
Cattle Poppulation											0
cow	137	430	366	61	212	350	276	180	1228	581	3821
Buffalo	429	537	426	310	224	43	551	227	1127	841	4715

Village Name											
Village Detail	Nani Ber	Moti ber	Vayor	Hothaiy	Aakri Moti	Nava Vas	Golay	Pakho	Jadva	Pipar	Total
Land Details (Hector)											
Forest	195	191	0	0	0	432	1098	513	0	0	2429
not usable	128	35	406	0	705	116	23	399	1020	4236	7068
Non agri	386	323	35	466	35	0	16	478	1543	9	3291
barred	444	760	209	154	893	24	0	60	96	634	3274
Farming Land	710	281	1083	134	710	66	1167	0	338	400	4889
Gauchar	0	83	113	48	1142	0	32	128	398	98	2042
others					118						118
Irrigation Land-(Hector)		0									0
Canal	102	0	0	0		0	0	0	0		102
well	35	80	50	44	3	0	0	0	0	200	412
lift irrgation	15	44	0	0		0	16	0	56		131
Health Facilities											0
Sub-PHC	No	1	2	No	No	No	No	No	No	1	4
PHC	No	No	1	No	No	No	No	No	No	No	1
CHC	No	No	No	No	No	No	No	No	No	No	0
District Hospital	No	No	No	No	No	No	No	No	No	No	0
Drinking Water											0
Home connection	85	227	990	116	172	79	288	39	254	102	2352
without connection	52		139	0	25	0					216
Sanitation		227									227
Toilet facilities	137	227	990	116	167	60	288	39	200	100	2324
without drainage connection	50		840	0	30	19			54		993
Electric Facilities											0
individual home connection	137	227	990	116	113	60	91	37	240	100	2111
Agri connection	35		10	7	7	0		10	30	2	101
Women SHG	2	2	3	0	1	0		0	3	2	13
Sakhi mandal	11	12	23	4	1	0	5	0	4	15	75
Others											0
Senior Citizen card	5	3		2	21	2	2	0	2	10	47
Widow Penson	1	1		4	3		1	1	26	8	45
Ayushman Card	20	35		32	24		0	0	0	0	111
Disable Pension			3		0		1	0	2	0	6
LPG Gas	58	1	780	10	19	10	60		100	15	1053

ATL-Mandvi & Rapar Block Villages

Adani Transmission is a company active in the power transmission and distribution sector in India and internationally. It holds a significant position as one of India's largest private sector power transmission companies, with a combined network spanning over 12,000 circuit kilometers. We wil start CSR initiatives in 12 villages located within the Mandavi and Rapar Block areas, intersected by the Adani Transmission Line."

We have conducted Primary baseline assessments and created Village profile of 12 villages and identify their specific needs, aspirations, and developmental potential. Based on that We have started CSR Activities in the core of education, healthcare, livelihood enhancement, women's empowerment,.

Village Name							
Village Detail	Kidiyanagar	Bhimasar	Moti khakhar	Gangapar	Moti Bhadai	Nani Bhadai	Total
Total House Hold	1300	1765	436	80	250	116	3947
Poppulation	9000	15000	2139	272	1171	498	28080
BPL	250	290	50	1	31	10	
ICDS-Anganwadi	10	10	1	0	1	1	23
Children Number	30	600	34	0	38	20	722
Primay School	10	13	2	1	1	1	28
Studnets Number	1083	1547	246	6	160	160	3202
Secondary and high secondry School	125	245	144	0	120	NA	634
Agriculture							0
Farmers	650	750	150	80	200	105	1935
Gruh Udhuog	1	0	1	NA	NA	NA	2
Cattle Poppulation							
Cow	400	750	700	100	686	600	3236
Buffalo	2600	1000	500	NA	768	188	5056
Sheep	1500	2500	1000	NA	100	NA	5100
Goat	1500	2500	1000	NA	200	NA	5200
Land Details (acers)	16702	4777	1000	3000	10460.00	4637	40576
Forest	0	100	NA	50	0	NA	150
not usable	1500	100	NA	200	1000	NA	2800
Non agri	NA	386	NA	300	1000	2537	4223
barred	NA	444	NA	450	NA	NA	894
Farming Land	11500	3500	600	1800	7800	2000	27200
Gauchar	3000	237	400	200	600	100	4537
Irrigation Land-(Hector)		0					
well	550	650	150	80	200	105	1735
lift irrgation	100	100	100	60	150	80	590
Health Facilities							0
Sub-PHC	1	1	1	NA	NA	NA	3
PHC	1	1		NA	NA	NA	2
CHC	No	No		NA	NA	NA	0
District Hospital	No	No		NA	NA	NA	0
Drinking Water	1300	1765	436	80	250	116	3947
Home connection	1300	1765	436	NA	250	116	3867
without connection	0	0	0			NA	0
Sanitation							0
Toilet facilities	1200	1650	400	80	200	100	3630
without drainage connection	100	115	36	NA	50	16	317
Electric Facilities							0
individual home connection	1300	1765	436	80	250	116	3947
Agri connection	600		1	80	NA	105	786
Women SHG	2	2	1	NA	200	0	205
Sakhi mandal	10	12	3	NA	1	1	27
Others						0	0
Widow Penson	400	400	40	5	50	25	920
Disable Pension	60	55	13	2	11	10	151

Events

Mother's Day Celebration

On May 14th, we celebrated Mother's Day in Mundra. Mrs. Chhaya ben Gadhvi, former District Education Chairperson of Kutch, delivered an inspiring speech about the importance of mothers in shaping families and our nation's future. More than 200 Mother had participated.

Inauguration of Ground water Recharging projects

On May 17th, Inaugurated a groundwater recharging project involving 21 percolation wells. We were honored to have notable attendees, including Mr. S.K. Prajapati (DDO Kutch), Mr. Rakshit Shah (EDM, APSEZ, Mundra), Mr. Mahendra Gadhvi (Chairman, Kutch Jilla Panchayat), and local Taluka Panchayat Presidents at the event.

Employee Volunteer Program

On May 14th and 15th, 2023, in Samudra Township, Mundra, the Adani Foundation organized a "Joy of giving" in partnership with the Indian Coast Guard Station, Mundra, with the noble aim to assisting those in need with essential items. We gathered old but usable clothes, utensils, and books to provide support to those less fortunate.

Organic Vegetable Shop Inauguration

Adani Foundation is promoting natural farming in Mundra through the "Rajshakti Prakrutik Kheti Sahkari Mandali," a group of 32 farmers. They opened a shop on May 24th to sale their produce open market

Events

Launching Of "Prakruti Rath"

On June 2nd, 2023, Adani Foundation Mundra and Kutch Copper Limited, along with the Government of Gujarat's Social Forestry Department, launched "Prakruti Rath," a 30-day environmental initiative aimed to distribute 50,000 tree saplings to 61 villages via an innovative vehicle that educates about environmental awareness.

Vegetables Kitchne Garden Kits Distribution

On June 3rd, Mundra Petrochemical and Adani Foundation celebrated World Environment Day in collaboration with the District Horticulture Department and distributed kitchen garden kits to over 500 farmers. In the Esteemed presenece of Mr.Amit Arora Collector Kutch.

State-level Kabaddi Tournament

State-level Kabaddi tournament was scheduled through The Maharana Pratap Group of Bhujpur ,more than 21 teams had participated from across Gujarat. We sponsored Rs. 25,000 to The winning team Rs. 15,000 to runner sup Team . We continue to support and encourage young talents for their growth and achievements..

Inauguration of Dates Restoration

Adani Foundation surveyed cyclone-caused agricultural crop damage, particularly date trees. They initiated a comprehensive project in partnership with KVS to restore the trees, commencing on June 24th in the presence of Mr. Anirudh Dave, MLA of Mundra-Mandvi, and Mr. Rakshit Shah, Executive Director of APSEZ, Mundra.

Events

Education Kits Distribution

On June 23rd, Mundra Petrochemicals organized a special program to distribute education kits to students in grades 9 to 12 from the Fisherfolk community. Mr. Omprakash Sir, representing Mundra Petrochemicals, shared an inspiring message about the Important of education. 40 students had benefited.

Inauguration Of Vegetable Market

Adani Foundation developed the Vegetable Market in Mundra, offering 195 stalls for convenient vegetable trading. It was handed over to Mundra Nagarpalika on June 24th, with Mr. Anirudh Dave (MLA Mundra-Mandavi) and Mr. Rakshit Shah (Executive Director of APSEZ, Mundra) present.

Guru Purnima Day Celebration

On July 3rd, Project Uthhan Mundra celebrated Guru Purnima Day across 69 primary schools and 8 high schools. The day commenced with a special prayer dedicated to the teachers (Gurus), followed by engaging activities such as drama performances and elocution competitions among the students.

Millet Food Competition

AF organized a Millet Dish competition on July 14th. in Collaboration of ICDS Department.Top three winners were recognized, and rewarded them, encouraging millet-based cooking

Events

Conservation of the Mangrove Ecosystem

On July 26th, Mundra Petrochemical celebrated Mangrove Day with spreading awareness over 9th and 10th-grade students and Fisherfolk The session ended with a Mangrove plantation. 150 + People had participated.

Kala Utsav Program

Kalautsav program was organized in collaboration with the District Education Department, on the 11th of August. The event was featured with various competitions, including drawing, singing, and instrumental playing. 70+ students from secondary and higher secondary schools from42 School of Mundra had participated..

Rakshabadhan Celebration

On Rakshabandhan, eco-friendly Rakhi making competition took place in all Utthan schools of Mundra. 46 exceptional girl students tied their Rakhis to BSF soldiers in Jakhau as a gesture of respect and gratitude.

Dr. Priti G Adani mam's 58th Birthday

On August 29th, Mundra Petrochem Ltd. marked Dr. Priti G Adani's 58th birthday with three impactful initiatives: 8,000 tree plantings in Deshalpar village, 500 sapling distributions at Government High School, and a workshop for 60 farmers on sustainable farming, all geared towards enhancing the local ecology and community resilience.

VVIP and VIP visits

Kajal Oza – Vaidhya

Famous Gujarati author and motivational speaker Mrs. Kaajal Oza Vaidya visited our Natural farming fields in Mangra village.

Fulcrum Batch 0

HODs of different business group of Adani came for CSR visit of Batch-0 as part of Fulcrum Leadership Development Program at Mundra.

Jay Vasavda Visit

Famous Gujarati writer and orator Mr. Jay Vasavada had visited our CSR work.

Pranav Adani Sir's Visit

Mr. Pranav Adani, along with other VIP guests, visited the Mangrove Plantation area in Luni coastal.

VVIP and VIP visits

VIP Visit : Ms. Lisa

Mrs Lisa MacCallum, Independent Director of Adani Energy Solution had visited our CSR work at Mundra.

VIP Visit – Sairam Dave

Mr. Sairam Dave, a renowned humorist and educationalist, visited Uthhan to inspire and motivate the students and teachers.

Journalist Visit

All journalist team came from Jarkhand ref by Ms. Varsha Chainani. They visited Women Empowerment and Agriculture Projects

AVMB Visit – Sairam Dave

Mr. Sairam Dave, a renowned humorist and educationalist, visited AVMB to inspire and motivate the students and teachers.

Award & Recognized

The Gujarat State Disaster Management Authority has acknowledged Adani Ports and SEZ for their outstanding support in establishing the world's top-ranking Miyawaki forest at Smruti Van, Bhuj. The Adani Foundation team actively monitored the project's advancement and made frequent site visits to ensure effective coordination..

Mr. Rajubhai, a team member of the Adani Foundation, was honored with the District Level Van Mitra Award by the District Administration during the 74th Van Mahotsav for his outstanding contributions to intensive tree plantation initiatives.

Case Study

A Breath of Change: Soanbai's Bio Gas Journey

Sonbai Vishram, a diligent 46-year-old woman, resides with her close-knit family in Vadi Vistar, Zarapara. She oversees a herd of 13 cattle with enthusiasm while caring for her seven family members. However, her life was far from easy. Every day, she would wake up at the crack of dawn and head into the dense farm to gather firewood. The Chulha, a traditional clay stove, was her only means of cooking, but it came with a hefty price.

Chopping wood and inhaling the thick smoke took a toll on Sonbai's health. Her eyes stung, her chest felt heavy, and she often found herself coughing uncontrollably. Furthermore, a lot of time is consumed by cutting wood. She deeply longs for more moments with her family, rather than devoting all her time to woodcutting; this sometimes leads to feelings of regret and sadness.

Seeing her mother's condition, her daughter Jetbai felt deeply disheartened. Fortunately, she learned that Mundra Petrochem was distributing biogas through a government-funded project "Gobardhan" to assist those in needs. She reached out to the Mundra Petrochem team, and upon witnessing her helplessness, they extended their support. They took full responsibility for all the documentation, registration, banking work, and installation. They also cover 50% of beneficiaries' biogas expenses. Additionally, they offered comprehensive training in biogas usage and maintenance, along with regular follow-up visits.

As soon as the biogas stove was up and running, Sonbai's life began to transform. Cooking became a breeze, and the air in her kitchen was free of choking smoke. Now, after eight months of using biogas, Sonbai's health has shown remarkable improvement, and she feels more energetic than she has in years.

She couldn't believe the remarkable transformations that had occurred in her life. Now, whenever she meets our team, she expresses her gratitude, and witnessing her radiant smile and heartfelt thanks, we find the true reward for our efforts.

Rising Above the Menstrual Taboo

This is a story of Laxmiben and many women like her living in Zarpara village. As women, they have the incredible gift of giving birth, but they also go through the monthly menstrual cycle. However, in many villages, including Zarpara, menstruation is considered a taboo topic. Women are often hesitant to talk about their personal experiences, and many don't even know about the menstrual cycle and its science.

Seeing the challenges faced by these women, Devalben and Roopaben, with the support of the Adani Foundation, organized a menstrual hygiene awareness camp in Zarpara. In this camp, they provided education about menstrual health to all the women. In just a short session, women began to open up and talk freely about their experiences. They revealed that they had never used menstrual products and typically relied on old, used cloths. In addition to this, their daughters had to miss school due to a lack of resources and the uncomfortable feeling during their periods.

Hearing these stories, Devalben and Roopaben explained the harmful effects of using old cloths and not maintaining proper hygiene during menstruation. They introduced the women to different menstrual products and taught them how to use and dispose of them correctly. They also discussed the various health issues that could arise from poor menstrual hygiene. Many women realized that they had experienced symptoms of these health problems but had never paid attention to them.

To help the women understand better, they showed an informative video about the menstrual cycle. After the session, the women felt grateful for the knowledge they had gained. Many of them admitted that they had never taken menstruation seriously before but were now committed to practicing proper menstrual hygiene. Those with symptoms of menstrual health issues decided to seek medical advice and treatment. All the women pledged to use sanitary pads regularly and ensure that their children's health and education were not affected by menstruation.

Our team was equally delighted that these women had broken free from the menstrual taboo and were determined to prioritize their menstrual hygiene.

Mayuri's Journey: A Tale of Determination and Hope

Mayuri comes from a simple middle-class family with four sisters. Her mother is a homemaker, while her father is a wage earner. They didn't have a lot of money, and life was tough.

Despite the financial hardships, Mayuri applied for the PSE exam, hoping it would open doors for her future education. She embarked on this journey alone, being the sole girl in her class brave enough to take on the competitive exam.

Mayuri's life took a hopeful turn when she crossed paths with Utthan Sahayak. This mentor provided her with a comprehensive guide for the PSE exam. This guide was like a lifeline for her. It made her feel more confident and less confused.

Mayuri was determined to succeed. She worked really hard. She found books and old exam papers to study from. She even watched videos on YouTube to learn more. She spent 2-3 hours studying every day, sometimes giving up fun things to focus on her studies. She didn't keep all that knowledge to herself; she shared what she learned with her friends and even during school prayers.

Mayuri went to the library often and used teaching and learning materials to learn more. She read a lot and practiced so much that she became really good at school competitions and public speaking. Her general knowledge improved and she became an expert in Gujarati grammar.

But, despite all her hard work, Mayuri didn't get the top score in the PSE exam. It was really disappointing for her. She had worked so hard, and it felt like all her efforts were in vain. But, it wasn't all bad. This experience taught her to never give up and to keep hoping for a better future.

The Magic of Practice: a remarkable Handwriting Transformation

Buchiya Nita, a diligent third-grade student at Gundala Kanya School, faced a deep-seated issue - her handwriting. Despite the correctness of her content, her messy handwriting often cast a shadow on her answers, making them appear incorrect. She held a belief that her handwriting would never improve and that it didn't hold much significance.

One fateful day, a compassionate Utthan Sahayak named Chauhan Kinjalba stepped in to assist her. Kinjalba aimed to aid Nita in enhancing her handwriting and enlighten her about its importance. Kinjalba noticed the errors Nita made while writing and gently pointed them out, allowing Nita to rectify them independently.

Nita's daily homework included writing a paragraph. Through persistent practice and unwavering commitment, her handwriting gradually became neater over several months. The ultimate test arrived when a calligraphy competition was organized. To the delight of everyone, Nita secured the second position in the competition, and her heart brimmed with joy at the remarkable improvement in her handwriting.

From a mischievous troublemaker to a responsible scholar

The teacher-student relationship is like the two wheels of a cart. When both wheels work together smoothly, the cart goes forward without any interruption. However, if one wheel comes loose, the cart stops in its tracks.

One such story revolves around Kumbhar illiyash, a student at Gundala Kumar School. Utthan Sahayak learned from teachers and fellow students that Illiyash was quite mischievous. He occasionally took items from other kids in class, sometimes bothered his classmates, disrupted the class with his behavior, and frequently seemed disinterested in his lessons.

Utthan Sahayak decided to have a loving and understanding conversation with Illiyash to encourage him to change his behavior. They would sit together every day, and she would teach him new habits and engage him in various activities. Gradually, Illiyash started developing an interest in learning, and with consistent effort and engaging activities, his active mind was redirected toward education, leading to a positive change in his behavior.

Just as milk and curd complement each other, Illiyash, once a mischievous child, has transformed into a well-behaved student today.

Raisingh's Inspiring Journey: Overcoming Disability to Find Independence

This is the story of Raysi maheshwari, who lives in Mota Kapaya village. When he was just 2 years old, he was affected by polio, and as he grew, 75% of one of his legs became nonfunctional. His childhood was different from other kids, he faced a lot of difficulties in doing daily tasks and had to depend on others. It's truly hard to put into words the profound difficulties he endured because of his condition. In the face of disability, Raysi's thirst for education and his refusal to depend on others for his livelihood remained unwavering. His determination was unbreakable, and he fearlessly confronted every obstacle that crossed his path.

Raysi completed his education up to the 12th grade and started searching for a job to become financially independent. However, transportation was a big challenge for him. He had to walk long distances many times, even though it hurt because of his disability.

Fortunately, in 2021, he learned about a job fair organized by the Adani Foundation on World Divyank Day. He decided to participate and impressed the interview panel with his skills. As a result, he got a job as a Gate operator at Rangoli Gate, Adani Port with a monthly salary of Rs. 13,000. Because of his dedication and hard work, his salary was later increased to Rs. 18,000 within a short time.

In addition to the job, he received medical certificates and continuous support from our team. Raysi is married now and has two children. His wife is also disabled, and the Adani Foundation supported her with a wheelchair. Now, she can efficiently manage household chores in less time.

Raysi and his family deeply appreciate these assistances. He now earns enough to provide for his family and support his children's education. The family is no longer financially dependent on anyone and lives with dignity and happiness. The Adani Foundation feels fortunate to witness the positive changes in the lives of people like Raysi, and consider it as the most meaningful reward for their efforts.

Shaping Lives:
From Pagdiya Fishing to Prosperity

Fisherman of Luni Village, a father of four boys and a girl, toiled tirelessly in the trade of Pagdiya fishing to ensure his family's survival. Despite the inherent vulnerability and daily hardships, he nurtured a singular dream - to provide his children with education and a better quality of life.

Through immense sacrifice and unwavering determination, he managed to educate his children up to the primary level. However, as their education progressed, financial constraints became a significant impediment. Unfortunately, two of his children had to drop out after completing the seventh year of their education due to these financial limitations.

Upon learning about their struggles, our organization reached out to him, extending scholarships to support the further education of his children. This assistance rekindled hope, allowing his second child to rejoin high school. Subsequently, it paved the way for the third and fourth child to continue their studies up to the twelfth grade.
However, our support did not end after their high school graduation. We maintained consistent contact, providing guidance and mentorship to tailored their individual interests and strengths, with the aim of helping them establish their careers.

As a result of our interventions, the children have experienced a remarkable transformation. The eldest, Mr. Altaf, attended RTG training for three months and is now employed as an RTG Operator at Adani Port, earning a salary of Rs. 22,000 per month. The second son found employment at MICT as a supervisor, earning Rs. 17,000 per month. The third child pursued his passion for photography and started his own photography studio, earning more than Rs. 20,000 per month.

Their father, Ali Mammad, expressed his heartfelt gratitude towards the Adani Foundation for their scholarship support, which served as a beacon in shaping their children's lives.

Breaking Waves of Poverty: Empowering Fisher folk through Education

The Fisher folk community resides a significant distance from the main city. Their primary means of sustaining themselves centers on fishing. This community experiences financial hardship and lacks access to education. They are hesitant to explore other professions because they have no education, awareness, or support. The challenging circumstances of their parents also affect the well-being and future prospects of their children.

Due to financial struggles, the children in the fishing community could only manage to complete their primary education before being compelled to join their parents in fishing jobs. This heart-wrenching cycle not only robbed them of the opportunity for a brighter future but also kept their community trapped in the clutches of relentless poverty.

Upon discovering their dire circumstances, the Adani Foundation Team with Mundra Petrochemical empathetically engaged with the children, who tearfully expressed their deep desire for education but sadly acknowledged the lack of sufficient resources to afford the necessities for school.

In an effort to uplift underprivileged children in the community, our team decided to provide them with vital learning materials to alleviate their financial burden. We provided students in grades 9 to 12 with essential educational materials, including textbooks, notebooks, and school bags. This initiative benefited a total of 61 students from the villages: Navinal, Modva, Tragdi, and Zarapara.

As a result of our support, both the children and their parents found substantial financial relief concerning education. This resulted in a decrease in school dropouts, and the children started attending school consistently. They now study without the burden of financial constraints and have a renewed determination to chase their dreams and secure stable jobs.

We consider ourselves incredibly fortunate to have been able to assist these children. Our longstanding wish has been for the children of fisher folk not to be confined to the path of becoming fishermen but to instead pursue education and secure stable jobs, thus breaking the cycle of poverty.

Unleashing Potential: Education beyond Boundaries

Modhva is a small village in Mandvi having a handful population, the life here revolves around the gentle rhythm of fishing. Families struggle with making ends meet as meager earnings barely cover daily expenses. The children in the village receive a basic education, advancing only to classes 5 or 6. Unfortunately, after this stage, a significant number of these young learners are bound to leave school and join their parents in the fishing trade.

Acknowledging the plight of undereducated students, Adani Foundation in coordination with GPVC team organized distinct meetings with both the students and their parents. In a heartfelt confession, the students expressed their eagerness to attend school but due to the lack of a local high school and financial constraints, they were unable to attend the nearby high schools. The parents clarified that their village serves as the last settlement along the coastline. Consequently, because of its remote location, there are no available transportation facilities. Their means of livelihood barely cover their essential expenses, leaving them unable to afford personal vehicles or rely on daily public transportation. Many parents wish to educate their children but feel helpless to do so.

Recognizing the economic challenges faced by the parents and driven by a commitment to educate these vulnerable children, our team stepped forward to assist by offering a complimentary transportation solution. Through firm dedication, we secured a van capable of accommodating twelve students, which has now been provided to the villagers in need. A local resident has been entrusted with the role of the driver, receiving a fair wage for their service.

Since June 2023, a group of six girls and five boys have shown unwavering commitment to attending school in the village of Gondiyali, situated 16 km away from Modhva. The fear of dropping out no longer casts its shadow, and parents are relieved of the burden of transportation expenses.

Upholding the belief that education is a boundless right accessible to all, GPVC team wholeheartedly extend our wishes for a future brimming with opportunities and success for these children.

Shaping Lives:
From Pagdiya Fishing to Prosperity

Imagine finding yourself trapped in the clutches of old age, battling declining health, and struggling with dire financial constraints. What would be Next ? However, within these challenging and circumstances, there are some remarkable stories of individual ,Through his journey, we witness how timely intervention and unwavering support can breathe new life into individuals and their families, igniting a flame of hope, healing, and renewed optimism.
One such story is that of Siddique Bhai Khatri, a 63-year-old resident of Mundra, Kutch fighting a relentless battle with tobacco addiction, succumbs to the merciless grip of oral cancer. As he receives the devastating biopsy report, it not only reveals the grim reality of his failing health but also serves as a stark reminder of his near-empty bank balance. With the exorbitant cost of the necessary operation hovering around 2 lakhs, Siddique Bhai finds himself teetering on the precipice of desperation.

Recognizing the Adani Foundation as a trusted ally in times of health-related crises, Siddique Bhai connected to Kishor Bhai, a representative from the foundation. personally visited Siddique Bhai's home on same day, This gesture of care provided much-needed solace to Siddique Bhai and his worried wife, who openly shared their financial predicament and concerns about the illness.

Understanding the urgency of Siddique Bhai's situation, Kishor Bhai assisted him in swiftly obtaining the Ayushman Card. **Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY), offers comprehensive healthcare coverage of up to 5 lakhs for various hospitalization** within a remarkable 8-hour timeframe. This prompt response and timely access successfully underwent Sidikbhai to the much-needed operation at Adani GK General Hospital.

After a recovery period of 8 days, Siddique Chacha returned home, reinvigorated and ready to face life's challenges anew. Today, two months later, he can be seen in the marketplace, his eyes twinkling with joy and gratitude. Meeting Kishor Bhai, Siddique Chacha's eyes speak volumes, conveying his deep appreciation for the Ayushman Card and the support provided by the Adani Foundation.

As of the date, over 5584 Ayushman cards have been issued, enabling individuals to access essential healthcare services.

Press Note

દિવ્ય ભાસ્કર

કચ્છ ભાસ્કર 25-06-2023

મુન્દ્રામાં નવી શાકમાર્કેટ અઠવાડિયામાં ધમધમતી થશે

નગર અને બારોઇરોડના તમામ લારીધારકોને સ્થાયી થવા પાલિકાનું આહવાન

સ્ટોલ દીઠ રૂા.4500 ભાડું : લાઇટ બિલ પાલિકા ભોગવશે

ગૌતમભાઈ અદાણી ના ૬૧ માં જન્મદિવસની કચ્છ સ્થિત વિવિધ પ્રકલ્પો દ્વારાવિવિધ સેવાકીય કર્યો કરી ઉજવણી કરવામાં આવી

મુંદ્રા તાલુકાના તમામ લોકોને 'આયુષ્યમાન' હેઠળ આવરી લેવાશે

વાવાઝોડાનાં અસરગ્રસ્તોને ભોજન, આરોગ્ય સહિતની અદાણી જૂથની સેવા

ફાઉન્ડેશન દ્વારા લોકોને હજારો ફૂડ પેકેટ અપાયા : રેસ્કયુ ટીમ ખડેપગે રખાઈ

ઉમરપાડામાં ટીબીનાં ૭૦ દર્દીઓને ધારાસભ્ય ગણપત વસાવાના હસ્તે પૌષ્ટિક કીટનું વિતરણ

અદાણી ફાઉન્ડેશન દ્વારા ઉમરપાડાના ટીબીના દર્દીઓને છ મહિના સુધી કીટ આપવામાં આવશે

અદાણી ફાઉન્ડેશન દ્વારા મુંદ્રાના મહિલા સ્વસહાય જૂથને ગૌ દાન !

ગાય આધારિત ઉત્પાદનો લાભાર્થીઓ માટે 'કામધેનુ' સમાન

Press Note

રાજ્યપાલનું પ્રાકૃતિક ખેતી માટે આહ્વાન

મુંદરા સ્થિત અદાણી ફાઉ. સાથે શ્રી રાજશક્તિ પ્રાકૃતિક ખેતી મંડળીના ખેડૂતોએ મુલાકાત લીધી

રાજ્યપાલ આચાર્ય દેવવ્રતજીની કચ્છની સૌપ્રથમ શ્રી રાજશક્તિ પ્રાકૃતિક ખેતી સહકારી મંડળીના ખેડૂતોએ મુલાકાત લીધી હતી. તેમની સાથે અદાણી ફાઉન્ડેશનના ગુજરાત સીએસઆર વડા પંક્તિબેન શાહ અને ધારાસભ્ય અનિરુદ્ધભાઈ દવે રહ્યા હતા.

ભુજ, તા. ૩૧ : અહીંના અદાણી ફાઉન્ડેશને ખેડૂતો પ્રાકૃતિક ખેતી અપનાવતા થાય અને લોકોને કેમિકલ ખાતરમુક્ત ખોરાક મળી રહે તેવા ઉમદા ઉદ્દેશને સાકાર કરવા બીડું ઝડપ્યું છે. આ સંદર્ભે મહત્ત્વપૂર્ણ માર્ગદર્શન મેળવવા ગુરુવારે ગુજરાતના રાજ્યપાલ આચાર્ય દેવવ્રતજીની મુલાકાતનું આયોજન કરાયું હતું.

કચ્છની સૌ પ્રથમ શ્રી રાજશક્તિ પ્રાકૃતિક ખેતી સહકારી મંડળીના ખેડૂતોએ રાજ્યપાલની રૂબરૂ મુલાકાત લઈ પોતાના પ્રાકૃતિક ઉત્પાદનો દેવવ્રતજીને અર્પણ કરી પ્રાકૃતિક ખેતીના અનુભવોનું આદાન-પ્રદાન કર્યું હતું. આ મુલાકાત બાદ ખેડૂતોમાં નવી ઊર્જાનો સંચાર થયો હતો.

રાજ્યપાલે જણાવ્યું કે 'ખેડૂતોમાં મનમાં વાવેલા પ્રાકૃતિક ખેતીના વિચારો આજે મને ઊગી રહેલા દેખાય છે. મને પ્રાકૃતિક ખેતી કરતો ખેડૂત કદી દુઃખી જોવા નથી મળ્યો. આપ સૌ ખેતી કામ કરતી બહેનોને સાથે લાવ્યાં તે બદલ અભિનંદન આપું છું.' તેમણે ઉમેર્યું કે 'બહેનો એકવાર જે નક્કી કરી લે છે તેને જીવનભર પાળે છે. આપ સૌમાં રહેલો પ્રકૃતિપ્રેમ રાજભવન સુધી ખેંચી લાવ્યો છે.' તદુપરાંત જે ખેડૂતોના ખેતરનો ઓર્ગેનિક કાર્બન ૨.૦થી વધુ છે તેઓને અભિનંદન આપ્યા હતા.

દેવવ્રતજીએ મુંદરા તાલુકાને પ્રાકૃતિક ખેતી તરફ લઈ જવાની સામૂહિક જવાબદારી ઉપાડવા ખેડૂતોને આહ્વાન કર્યું હતું. એટલું જ નહીં, પ્રાકૃતિક ખેતીના પાંચ આયામો જીવામૃત, ઘન જીવામૃત, અળસિયા, આચ્છાદન અને પંચગવ્ય ઘરે જ બનાવી ખેતીમાં તેનો ઉપયોગ કરી ઉત્તમ ઉત્પાદનો મેળવવા સૂચન કર્યું હતું.

આ મુલાકાત માટે માંડવીના ધારાસભ્ય અનિરુદ્ધભાઈ દવેએ ખેડૂતોને પ્રોત્સાહન પૂરું પાડતાં જણાવ્યું કે 'કચ્છ દરેક બાબતની પહેલ કરવામાં હંમેશાં અગ્રેસર છે ત્યારે મને વિશ્વાસ છે કે આપણા ખેડૂતો આ બાબતે પાછીપાની નહીં કરે. આપના ઉત્પાદનોને ઉત્તમ બજાર મળી રહે તે માટે આપણે સૌ સહિયારા પ્રયાસો કરીશું.'

આ પ્રસંગે અદાણી ફાઉન્ડેશનના ગુજરાત સી.એસ.આર. હેડ પંક્તિબેન શાહે રાજ્યપાલને આભારસહ ખાતરી આપતાં જણાવ્યું કે 'પ્રકૃતિ પ્રત્યેનું ઋણ અદા કરવામાં અદાણી પરિવાર ક્યારેય પાછીપાની નહીં કરે. હંમેશાં ખેડૂતોની પડખે રહીને ઉદ્યોગગૃહના સામાજિક ઉત્તરદાયિત્વને નિભાવશે.'

ખેડૂતોએ ગૌવંશ આધારિત ખેતી માટે બંસીગીર ગૌશાળા ખાતે ગોપાલ સુતરિયા પાસેથી પણ માર્ગદર્શન મેળવ્યું હતું. એટલું જ નહીં, દેશ-વિદેશમાં પ્રાકૃતિક ખેતઉત્પાદનોની માંગ વધી રહી છે ત્યારે તેની વેચાણ વ્યવસ્થાને સમજવા અમદાવાદ સ્થિત 'સૃષ્ટિ ઇનોવેશન'ની મુલાકાત પણ લીધી હતી.

અદાણી ફાઉન્ડેશન દ્વારા હાથ ધરાયેલી પહેલોના પરિણામે શ્રી રાજશક્તિ પ્રાકૃતિક ખેતી સહકારી મંડળીની સ્થાપના કરવામાં આવી હતી. ૩૦ ખેડૂતોથી શરૂ કરાયેલી સંસ્થા આજે ૨૨૫થી વધુ સભ્ય સંખ્યા સાથે પ્રગતિના પંથે છે.

लोकतेज

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अदाणी फाउंडेशन, दहेज द्वारा 'पेड़ों के माध्यम से विकास' ग्रामीण विकास अभियान

फलदार पौधों से आने वाले वर्षों में किसान की आय में वृद्धि होगी

અદાણી ફાઉન્ડેશન અને અદાણી ગ્રીન એનર્જી દ્વારા લખપતમાં આરોગ્ય કેમ્પ યોજાયા

આયુષ્યમાન કાર્ડ, તબીબી સારવાર અને પશુઓને રસીકરણ કરાયું

અદાણી નવચેતન વિદ્યાલય, જૂનાગામમાં ફળાઉ છોડ અને શૈક્ષણિક કીટ આપી શાળા પ્રવેશોત્સવ

ભરૂચના પૂરગ્રસ્ત ત્રણ ગામમાં અદાણી ફાઉન્ડેશન દ્વારા રાશનકીટનું વિતરણ

(1.81 MB) KUTCH PATRIKA 29...

અદાણી ફાઉન્ડેશન દ્વારા બિદડામાં મધર્સ-ડે ઉજવણી અંતર્ગત મિલેટ્સની વાનગી બનાવવાની હરીફાઈનું કરાયેલું આયોજન

અદાણી ફાઉ. દ્વારા મુંદ્રામાં પશુધનની સુરક્ષા માટે પશુ આરોગ્ય કેમ્પનું આયોજન

૨૦,૦૦૦ પશુઓને તંદુરસ્ત અને નિરોગી રાખવા અનોખી પહેલ

બાળકોના ભવિષ્યને ઉજ્જવળ બનાવવા અદાણી ફાઉન્ડેશનના ભગીરથ પ્રયાસો

Annexure – 4

GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,
GANDHINAGAR - 382010,
(T) 079-23232152

By R.P.A.D.

NO: PC/ CCA- KUTCH-39(8)/ GPCB ID: 17739/748148 Date: -18/07/2023

Correction in Consolidated Consent & Authorization order no AWH-117045 date of issue 09/03/2022 (Under the provisions/rules of Environmental acts)

To,
M/s. Adani Ports & Special Economic Zone Limited,
Plot no. 169/P, At Navinal Island,
Tal: Mundra,
Dist: Kutch - 370 421.

Subject : Correction of Consolidated Consent and Authorization of this Board.
Reference : 1. This office has issued CCA order no. **AWH—117045** issued vide order no. GPCB/CCA-KUTCH-39(7)/ ID-17739/625051 dated 09/03/2022.
2 Your application CTN inward ID 7001067 dated 30/03/2022.

In exercise of the power conferred under section-27 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous & Other Waste (Management &Transboundary Movement) Rules-2016 & as amended framed under the Environmental (Protection) Act-1986 and without reducing your responsibility under the said Acts/Rules in anyway. The Board had granted CCA vide order no. **AWH – 117045** issued vide letter no. GPCB/CCA-KUTCH-39(7)/ ID-17739/625051 dated 09/03/2022.

And whereas Board is empowered to amended/ corrected consent order conditions. Accordingly, considering your request for correction in the said CCA order vide CTN inward ID 7001067 dated 30/03/2022, the said CCA order no. AWH-117045 is hereby corrected/ amended as below;

1. **The condition no. 3.5 of the said order is amended as below:**
   3.5 The quantity of domestic waste water shall not exceed 263 KL/Day.
2. **The condition no. 5.2 of the said order is amended as below:**
   5.2 **M/s. Adani Ports & Special Economic Zone Ltd.,** is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, treatment, storage, transport of hazardous waste on the premises situated at **Plot no. 169/P, At Navinal Island, Taluka: Mundra, Dist: Kutch.**

Sr. No.	Waste	Quantity per Annum	Schedule &Category	Facility
1	Used/ Spent Oil	360 MT	I- 5.1	Collection, storage, Transportation, Disposal by selling out to registered recyclers/ reprocessor and/ or reuse within premises.
2	ETP Sludge	109.5 MT	I-35.3	Collection, storage, Transportation & disposal by sent out for co processing at cement industries and/ or CHWIF site.

3	Sludge & filters contaminated with oil	5 MT	I-3.3	Collection, storage, Transportation, Disposal by co-processing at cement industries and/or CHWIF site
4	Waste Residue containing Oil/ oily rags	150 MT	I-33.2	Collection, storage, Transportation & disposal by sent out for co processing at cement industries and/ or CHWIF site.
5	Pig Waste	24 MT	I-3.1	Collection, storage, Transportation, Disposal by co-processing at cement industries and/or CHWIF site
6	Tank Bottom sludge	Whatever Quantity generated	I-3.2	Collection, storage, Transportation, Disposal by co-processing at cement industries and/or CHWIF site/ or recycling to registered recycler.
7	Discard containers/ barrels	25 MT	I-33.3	Collection, storage, Transportation, Disposal by reuse within premises and / or selling out to registered decontamination.
8	Asbestoses Waste	Whatever Quantity generated	I-15.1	Collection, storage, Transportation, Disposal at CHWIF site.
9	Glass Wool Waste	Whatever Quantity generated	II/C-9	Collection, storage, Transportation, Disposal by co-processing at cement industries and/or incineration at CHWIF site and / or recycling through registered recycler.
10	Downgrade Chemical	Whatever Quantity generated	I-20.2	Collection, storage, Transportation, Disposal by reuse within premises and / or selling out to authorized solvent recover.
11	Waste Oil	1,80,000 MT (0.18 MMTA)	I-5.2	Collection, storage, Transportation,, Disposal by selling out to registered recyclers
12	Expired Paint Material	10 MT	I-21.1	Collection, storage, Transportation, Disposal by co-processing at cement industries and/or CHWIF site

3. Rest of conditions of CCA order no. AWH—117045 issued vide order no. GPCB/CCA-KUTCH-39(7)/ ID-17739/625051 dated 09/03/2022 shall remain unchanged & industry shall comply with the same judiciously.

For and on behalf of
Gujarat Pollution Control Board

(T.C. Patel)
Unit Head

Annexure – 5

adani
Ports and Logistics

Cost of Environmental Protection Measures

Sr. No.	Activity	Cost incurred (INR in Lacs)			Budgeted Cost (INR in Lacs)
		2021 – 22	2022 – 23	2023 – 24 (till Sep'23)	2023 – 24
1.	Environmental Study / Audit and Consultancy	6.82	7.32	16.19	27
2.	Legal & Statutory Expenses	10.52	12.32	00	13
3.	Environmental Monitoring Services	14.31	15.32	5.08	19.20
4.	Hazardous / Non-Hazardous Waste Management & Disposal	107.09	104.035	65.81	148.68
5.	Environment Days Celebration and Advertisement / Business development	4.04	2.53	2.30	11.50
6.	Treatment and Disposal of Bio-Medical Waste	2.14	2.29	1.14	2.28
7.	Mangrove Plantation, Monitoring & Conservation	53.6	35.0	0	15.0
8.	Other Horticulture Expenses	921	956	628	904
9.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	252.27	141.33	79.73	212.9
10.	Expenditure of Environment Dept. (Apart from above head)	149.8	90.136	25.228	182.917
	Total	**1371.79**	**1366.28**	**823.48**	**1536.48**