

adani

Ports and
Logistics

APSEZL/EnvCell/2021-22/029

Date: 18.05.2021

To

Deputy Director General of Forest (Central),
Ministry of Environment, Forest and Climate Change,
Regional Office (WZ), E-5, Kendriya
Paryavaran Bhawan, Arera Colony,
Link Road No. - 3, Bhopal - 462 016.
E-mail: rowz.bpl-mef@nic.in, eccomplinace-guj@gov.in

Sub : Half yearly Compliance report for Environment and CRZ Clearance for the "Multi Product SEZ, Desalination, Sea Water Intake, Outfall Facility and Pipeline at Mundra, Dist. Kachchh, Gujarat of M/s. Adani Ports and SEZ Limited"

Ref : Environment and CRZ clearance granted to M/s Adani Ports and SEZ Limited vide letter dated 15th July, 2014 bearing MoEF letter No. 10-138/2008-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 that copy of the compliance report for the Environmental and CRZ Clearance for the period of October-2020 to March-2021 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



Douglas Charles Smith
Chief Executive Officer
Mundra & Tuna Port

CP attached

Encl: As above

Copy to:

- 1) The Director (IA Division), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003
- 2) Zonal Officer, Regional Office, CPCB - Western Region, Parivesh Bhawan, Opp. VMC Ward Office No. 10, Subhanpura, Vadodara - 390 023
- 3) Member Secretary, GPCB - Head Office, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar - 382 010
- 4) The Director, Forests & Environment Department, Block - 14, 8th floor, Sachivalaya, Gandhi Nagar - 382 010
- 5) Regional Officer, Regional Office GPCB (Kutch-East), Gandhidham, 370201

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Environmental Clearance Compliance Report



Multi Product SEZ,
Mundra, Dist. Kutch, Gujarat

Adani Ports and SEZ Limited

For the period of
October–2020 to March–2021

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

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	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Copy of Environmental and CRZ Clearance

F. No. 10-138/2008-IA.III
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003.

Dated: July 15, 2014

To
M/s Adani Port and SEZ Ltd
Adani House, Near Mithakhali Six Roads,
Navarangpura, Ahmedabad,
Gujarat- 380 009.

Subject: EC for proposed Multi- Product SEZ and CRZ clearance for Desalination, sea water intake, outfall facility and pipeline, at Mundra by M/s Adani Port and SEZ Ltd. – Reg.

This has reference to letter No. ENV-10-2010-1601-E dated 27.03.2012 of the Director (Environment) & Additional Secretary, Govt. of Gujarat and your subsequent letters dated 10.05.2012, 14.05.2012, 26.05.2012 and 29.04.2013 seeking prior Environmental and CRZ Clearance for the above project under the EIA Notification, 2006 and Coastal Regulation Zone Notification, 2011. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 and the Coastal Regulation Zone Notification, 2011 on the basis of the mandatory documents enclosed with the application viz., the Questionnaire, BIA, EMP, recommendations of the State Coastal Zone Management Authority and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 16th -17th April, 2012, 4th -5th June, 2012 and 9th -10th July, 2012.

2. It is, interalia, noted that the project involves development of multi product SEZ on a plot area of 18,000 ha. of which 6641.2784 ha. is presently notified under Special Economic Zone (SEZ). As per the proponent, the Multi product SEZ at Mundra comprising of various processing zones, non-processing zones, warehousing zones, Road Network (trunk as well as internal), Bridges or culverts over natural drains, Rail Network, IT-Telecommunication network, Electrical Network, Water supply, conservation & drainage Network, Effluent collection network, Desalination Plant with proposed intake & outfall locations, Common Effluent Treatment Plants & Sewage Treatment Plants, Natural Gas line network, Social Infrastructure, Existing Airstrip, Municipal Solid Waste Disposal site, utilities & supporting infrastructure etc. For the first phase of development total water requirement will be 150 MLD. Power requirement will be approx. 360 MW. Desalination plant of 150 MLD output capacity is proposed. 11 MLD water will be sourced through Narmada water pipeline. Two CBTP each of capacity 50 MLD and 17 MLD as well as STP of 62 MLD is proposed. This will require 375 MLD of seawater intake and 241 MLD of treated waste water outfall into the sea. For final phase of development total water requirement will be 450 MLD and power requirement will be approx. 1000 MW.



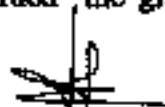
3. A suitable seawater intake point has been identified on the eastern end of the approved East Port Basin at Latitude 22°48'30.76"N; Longitude 69°46'34.06"E where a depth of 6 m below CD would be available after the port development. As per modelling study the combined discharge of 241MLD which includes 16MLD from CETP and 225 MLD from desalination plant as RO reject is expected having 57.57ppt of salinity, 14.41 mg / l of BOD and 94.39 mg/l of COD. After careful consideration of many aspects a suitable outfall location is identified on the west of the Eastern basin at Latitude 22°46'44.04"N; Longitude 69°45'5.51"E taking advantage of the expected 7.5m below CD basin depth. The outfall pipe line length is approximately 5.7 km and diffuser designed to attain a minimum dilution of 40-50 times.

4. The Centre for Earth Science Studies demarcated IITL, LTL and CRZ area. As per the CESS report and GCZMA, out of 6641.2784 ha of SEZ area, 1473.39 ha area falls within CRZ area. No SEZ industrial activity is proposed in the CRZ area. Only the Desalination plant pipeline for intake and outfall is proposed in CRZ areas. The Gujarat SCZMA in their 14th meeting held on 27-02-2012 considered the proposal of intake, outfall facilities, Desalination plant and laying pipeline and recommended the same vide their letter no.ENV-10-2010-1601-E dated 27th March 2012. Gujarat Pollution Control Board has granted Consent to Establishment of Marine outfall (NOC) vide letter dated 10.11.2011. The length of the intake will be approximately 5 Kms. As the sea water intake demand is 15000m³/h, drawal by pipe system is suitable by incorporating a wet well structure at the location. The intake point proposed is within the proposed East Port basin with a depth of 6 m below CD. The projected quantity of water can be transported through a single pipe of 1.3 m dia with a flow velocity of 3 m/ s or with a 1.6 m pipe with flow velocity of 2m/s.

5. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environment and CRZ Clearance for the SEZ in an area of 8481.2784 ha. However, SEZ for 1840 ha has been approved in principle by Ministry of Commerce and Industries.

6. Hon'ble High Court of Gujarat in WP No. 21 of 2013 vide order dated 13.01.2014 has directed that the Ministry to take a decision of its own so far as the issue of grant of environmental clearance is concerned considering the position prevailing as on date and also the aspects which have been highlighted by us in this judgment, within a period of thirty days from the date of this judgment without fail. Further, vide order dated 27.01.2014 Hon'ble Supreme Court in SLP No. 1526 of 2014 which was filed against the Order of High Court by the Respondent-1 has passed order that in case, the MOEF is unable to complete the process within the time stipulated by the High Court, it will be open for them to approach this Court for extension of time. Accordingly, Ministry has filed a petition before the Hon'ble Supreme Court seeking extension of two months time.

7. It is noted from the Judgement dated 13.01.2014 of Hon'ble High Court of Gujarat in PIL 21 of 2013 the Hon'ble Court has construed the grant of lease to units prior to



obtaining EC by M/s APSEZL as violation of EIA, Notification, 2006. Therefore, according to the OM's dated 12.12.2012 and 27.06.2013, PP was addressed for Board Resolution and the State Government was addressed to take credible action against the PP for the violation. Direction under Section 5 of E(P)Act, 1986 was also issued to APSEZ not to take up and allow any further construction activity within SEZ till the grant of clearance.

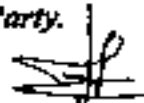
8. Further, Hon'ble Supreme Court video order dated 02.05.2014 in SLP 1526 of 2013 had ordered for stay of Ministry's letter dated 3.04.2014 addressed to Government of Gujarat to initiate legal action for the violation, also directed that the Ministry to complete the process of EC within eight weeks.

9. M/s APSEZ Ltd. has stated that the Board resolved that since the matter is sub-judice before the Hon'ble Supreme Court of India, will fully abide by the outcome of the decision of the Hon'ble Supreme Court.

10. In view of the above and to comply with the orders of Hon'ble Courts, Ministry hereby accords necessary Environment Clearance for proposed Multi- Product SEZ in an area of 6641.2784 ha and CRZ clearance for desalination, seawater intake, outfall facility and pipeline for as per the provisions of Environmental Impact Assessment Notification - 2006 and its subsequent amendments and Coastal Regulation Zone Notification, 2011, subject to strict compliance of the terms and conditions as follows:

II. PART A - SPECIFIC CONDITIONS

- (i) *PP shall abide by the final order/decision of Hon'ble Supreme Court in SLP (Civil) no. 1526/2014 and connected matters.*
- (ii) *Properly conserve the creeks, river and the mangroves area in the area.*
- (iii) *Ensure that mouths of all the creeks are kept open to ensure flushing of the creeks.*
- (iv) *Bring the creeks to the condition as was seen in the satellite map of 2005 which will be a "reference" satellite map and a copy of which shall be sent to you separately.*
- (v) *Submit once in a year latest satellite map which can be compared with the reference satellite map of 2005 to ensure that no modification in the creeks, rivers, mangroves and mouth of creeks have taken place.*
- (vi) *Any direction issued by the MoEF with respect to the report submitted by Ms Sunita Narain Committee shall be complied with by the Proponent as applicable.*
- (vii) *At its cost get inspection study done once in a year by the organizations like NEERI or any organization approved by this Ministry to - (i) ensure compliance of all the EC conditions (ii) development of SEZ meeting of the environment norms, and (iii) advise any mid-term correction that can be introduced depending on the recommendation of the Independent Third Party.*



- (viii) "Consent for Establishment" for the SEZ shall be obtained from Gujarat Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.
- (ix) PP shall get detailed bathymetry done for all the creeks and rivers within Port and SEZ areas along with mapping of co-ordinates, running length, HTL, CRZ boundary, mangrove areas including huffer zone through NCSCM / NIOT. PP shall also get prepared a detailed action plan for conservation and protection of creeks/ mangrove area etc through NCSCM / NIOT and submit the same to GCZMA for their examination and recommendation. GCZMA will submit its recommendations to MoEF for approval.
- (x) PP shall demarcate the CRZ area on land with GPS coordinates in consultation with GCZMA/ the agency which has done the HTL/LTL demarcation for the area. There shall be no allotment of plots in CRZ area to industries. No industrial activity within CRZ area except the port and harbor & the foreshore facilities shall be allowed as committed
- (xi) Till the approval of action plan for conservation and protection of creeks/ mangrove area, the CRZ area within SEZ shall be demarcated as "No Development Zone". PP shall not allow/ undertake any development in CRZ area of SEZ.
- (xii) The implementation of action plan approved by the MoEF shall be monitored by the NCSCM/ NIOT. Compliance with action plan shall be submitted to GCZMA and to MoEF, RO. at Bhopal along with six monthly monitoring report.
- (xiii) PP shall earmark separate budget for the implementation of the above action plan. The details of the expenditure shall be submitted to GCZMA and to MoEF, RO. at Bhopal along with six monthly monitoring report.
- (xiv) All the industry in SEZ shall be connected through impervious drainage lines to the STP/ CETP for the discharge of their sewage or industrial effluent. There shall not be any discharge to creeks / rivers. PP shall be accountable for implementing this condition and necessary clause shall be incorporated in the MoU while allotting the plot to the individual industries
- (xv) PP shall not carry out any river course modification.
- (xvi) The individual industrial units shall obtain prior EC under EIA Notification, 2006 as applicable.
- (xvii) Proponents shall identify 200 ha of land for mangrove plantation as per the condition laid by SEAC.
- (xviii) 50 meter buffer from the existing mangrove area should be provided for any developmental activity,



- (xix) *Proponent shall develop the green belt with 3 layers of canopy all along the periphery.*
- (xx) *All the recommendation of the EMP shall be complied with in letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.*
- (xxi) *There shall be no disturbance to the sand dunes. The pipelines shall be laid using advanced method viz. Horizontal Directional Drilling (HDD) so as to avoid disturbance to the sand dunes/ creeks/ mangroves.*

PART - B. GENERAL CONDITIONS

Construction Phase.

- (i) *Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.*
- (ii) *A First Aid Room will be provided in the project both during construction and operation of the project.*
- (iii) *All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.*
- (iv) *Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed, taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.*
- (v) *Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.*
- (vi) *Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.*
- (vii) *Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Gujarat Pollution Control Board.*
- (viii) *The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.*



- (ix) *The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.*
- (x) *Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.*
- (xi) *Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/GPCB.*
- (xii) *Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within 100 Kms of Thermal Power Stations).*
- (xiii) *Ready mixed concrete must be used in building construction.*
- (xiv) *Storm water control and its re-use should be regulated as per CGWB and BIS standards for various applications.*
- (xv) *Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other referred best practices.*
- (xvi) *Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.*
- (xvii) *Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.*
- (xviii) *Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.*
- (xix) *Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows.*
- (xx) *Roof should meet prescriptive requirements as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirements.*
- (xxi) *Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all airconditioned spaces while it is aspirational for non-airconditioned spaces by use of appropriate thermal insulation material to fulfil these requirement.*



- (xxii) *The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquakes, adequacy of fire fighting equipments, etc. as per National Building Code including protection measures from lightning etc.*
- (xxiii) *Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.*
- (xxiv) *Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it is found that construction of the project has been started without obtaining environmental clearance.*

Operation Phase

- (i) *The PP while issuing the allotment letter to individual member units shall specifically mention the allowable maximum quantity of water usage and effluent generated by each member unit.*
- (ii) *The PP shall establish an environmental monitoring cell with all the potential polluting units as members to review the environmental monitoring data and suggest improvements.*
- (iii) *Treated effluent emanating from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralised treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.*
- (iv) *The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry / inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.*
- (v) *Diesel power generating sets proposed as source of back up power for elevators and common area illumination during operational phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Low sulphur diesel should be used. The location of the DG sets may be decided in consultation with the Gujarat Pollution Control Board.*
- (vi) *Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.*
- (vii) *Green belt of adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.*



- (viii) Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.
- (ix) Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented.
- (x) The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.
- (xi) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
- (xii) A Report on the energy conservation measures conforming to energy conservation norms finalised by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & D Factors etc and submitted to the Ministry along with six monthly monitoring report.
- (xiii) Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be an integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination. Solar panels may be used to the extent possible.
- (xiv) Adequate measures should be taken to prevent odour problems from solid waste processing plant and STP.
- (xv) The buildings should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
- (xvi) The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.
- (xvii) Adequate drinking water facility be provided.
- (xviii) Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored after commissioning of the project.
- (xix) Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for portion of the apartments should be provided.
- (xx) Ozone depleting substance (Regulation & Control) Rules should be followed while designing the air conditioning system of the project.

12. Officials from the Regional Office of MOEF, Bhopal who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the

documents submitted to MoEF should be forwarded to the CCF, Regional office of MOEF, Bhopal

13. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.

14. The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

15. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

16. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

17. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Clearance and copies of clearance letters are available with the Gujarat Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <http://www.mef.gov.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhopal.

18. Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

19. "Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010".

20. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parish/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

21. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.



22. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

23. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.


(Lalit Kapur)
Director (IA-III)

Copy to:

1. The Principal Secretary, Forest and Environment Department, Block no. 14/ 8 floor Sachivalaya, Gandhinagar - 382 010 Gujarat.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
3. The Member Secretary, Gujarat Coastal Zone Management Authority & Director,(Environment) Forests & Environment Department, Block No. 14, 8th Floor, Sachivalaya, Gandhinagar-382.
4. The Chief Conservator of Forests, Ministry of Environment and Forests, Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No. 3, Ravishanker Nagar, Bhopal - 462016 (M.P.)
5. The Member Secretary, Gujarat State Pollution Control Board, Paryavaran Bhawan , Sector 10-A, Gandhi Nagar 382043, Gujarat
6. Director (EI), Ministry of Environment and Forests.
7. Guard File.
8. Monitoring File.


(Lalit Kapur)
Director (IA-III)

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Compliance Report of Environmental and CRZ Clearance

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

M/s. APSEZ has been granted Environmental / CRZ clearance vide letter no. 10-138/2008-IA.III, dated 15th July, 2014 for development of “Multi Product SEZ, Desalination, Sea Water Intake, Outfall Facility and Pipeline”.

Activities / Facilities approved are as below:

Facilities / Components Approved	Capacity	Status as on 31.03.2021
Desalination Plant	150 MLD	Construction has not been started.
Sea water Intake & Outfall Facility	375 MLD: Intake 241 MLD: Outfall	Construction has not been started.
Common Effluent Treatment Plant	17 MLD	MPSEZ Utilities Ltd. (MUL) has been granted environmental clearance for CETP having 17.0 MLD capacities. Out of which at present one module of CETP having 2.5 MLD capacities has been constructed and is in operation.
	50 MLD	Construction has not been started.
Social Infrastructure Projects	--	Adani Mundra SEZ Infrastructure Pvt. Ltd. (AMSIPL) has granted environmental clearance for township and area development project in 255 Ha. Out of approved 10,000 no. of residential units, 1368 units are constructed.
Sewage Treatment Plant	62 MLD	APSEZ has installed Sewage Treatment Plant @ 150 KLD Capacities within SEZ for treatment of sewage generated from port user buildings.
Airstrip	--	Airstrip has been developed within SEZ area after obtaining requisite permissions.
Municipal Solid Waste Site	--	Material Recovery site is provided for the management of Municipal Solid Waste.
Free Trade & Ware House Zone (FTWZ)	--	Construction is completed and in operation.

Other utility developments and modification, as a part of SEZ, to facilitate various units coming as a part of SEZ are being done on continuous basis.

Note:

Environmental / CRZ clearance has been granted for additional facilities like Processing Zones, Non-processing Zones, Warehousing Zones, Road Network (Trunk as well as Internal), Bridges or Culverts over natural drain, Rail Network, IT-Telecommunication Network, Electric Network, Water Supply, Conservation & Drainage Network, Effluent Collection Network and Utilities & Supporting Infrastructure within SEZ area.

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Boundary wall is constructed along the project periphery. In some of areas level raising and area development of SEZ area, wherever required is also under progress.

APSEZ has been granted Environment and CRZ clearance for 'Expansion of notified Multi-product SEZ by adding 1840 Ha notified SEZ with existing approved area of 6641.2784 ha to make it 8481.2784 ha at Mundra vide letter no. F. No. 10-138/200E-IA.III, dated 12th February, 2020.

*Inline to the APSEZ's request, Ministry of Commerce & Industry (MoCI) vide Gazette order dtd. 4th July 2019 has de-notified 46.6894 from total area of 8481.2784 Ha, thereby making resultant area of notified Multiproduct SEZ as 8434.5890 Ha.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

List of Industrial Units within SEZ area

Sr. No.	Name of Unit	Nature of Business	Status
1	Skaps Industries (Unit – I)	Textile	In Operation
2	Skaps Industries (Unit – II)		In Operation
3	Terram Gosynthetics Pvt. Ltd.		In Operation
4	Ahlstrom Fibre Composite India Pvt. Ltd.		In Operation
5	Ashapura Garments		Not in Operation
6	Anjani Udyog Pvt. Ltd.		In Operation
7	Aanya Composites Private Limited		Under Construction
8	Raa Overseas Pvt. Ltd.		Not in Operation
9	M.D. Equipments	Engineering	Under Construction
10	Thermax Ltd.		In Operation
11	Oilfield Warehouse Services Pvt. Ltd.	Ware House	In Operation
12	Oilfield Warehouse Services LLP		Under Construction
13	Rudrax Terminal		In operation
14	Avesta Eng. Pvt. Ltd.	Engineering	Not in Operation
15	MD equipment		Under Construction
16	Alstom Bharat Forge Power Ltd. & Kalyani Alstom Power Ltd.		Under Construction
17	Dorf Ketel Specialty Catalyst Pvt. Ltd.	Chemical	In Operation
18	Oriental Carbon and Chemicals Ltd.		In Operation
19	Gujarat CREDO Alumina Chemicals Pvt. Ltd.		In Operation
20	Mundra Oil Pvt. Ltd.		In Operation
21	Garg Tubes Exports LLP		In Operation
22	Jasons Industries		In Operation
23	Seabird Marine Services Pvt. Ltd.	CFS	In Operation
24	Honeycomb Logistics Pvt. Ltd.		In Operation
25	All Cargo Global Logistics Ltd.		In Operation
26	Mundhra CFS		In Operation
27	Saurashtra Containers Pvt. Ltd.		In Operation
28	Transworld Terminals Pvt. Ltd.		In Operation
29	Mundra International Container Terminal (DP World)		In Operation
30	Central Warehousing Corp. Ltd.		In Operation
31	Maruti Suzuki India Limited (PDI Yard)	Pre Delivery Inspection Yard	In Operation
32	Britannia Industries Limited	Food Products	In Operation
33	Mundra Solar Photo Voltaic Ltd.	Electronics Manufacturing Cluster	In Operation
34	Mundra Solar Technopark Pvt. Ltd.		In Operation
35	Vishakha Renewable Pvt Ltd		In Operation
36	Vishakha Solar Films Pvt Ltd		In Operation
37	Vishakha Metals Pvt Ltd		In Operation
38	Empezar Logistics		In Operation
39	Steinweige Sharaf	Ware House	In Operation
40	Kerry Indev Logistic Pvt. Ltd.		In Operation
41	Fast Track CFS		In Operation
42	Adani Power (Mundra) Limited	Thermal Power Plant	In Operation
43	AMSIPL- Samudra Township (including residential units, STP 2.5 MLD, hospital, commercial complex, school etc.)	Social Infrastructure	In Operation
44	MPSEZ Utilities Ltd.	Common Effluent Treatment Plant 2.5 MLD	In Operation
45	Hirise Hospitality Pvt. Ltd.	Beetle smart hotel	In Operation

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Compliance report of Environment Clearance for the project “Multi Product SEZ” and CRZ Clearance for the project “Desalination, Sea Water Intake, Outfall Facility and Pipeline at Mundra, Dist. Kachchh, Gujarat of M/s. Adani Ports and SEZ Limited” vide MoEF letter No. 10-138/2008-IA.III dated 15th July, 2014.

Sr. No.	Conditions	Compliance Status as on 31.03.2021
Part – A: Specific Conditions		
i.	PP shall abide by the final order/decision of Hon'ble Supreme Court in SLP (Civil) no. 1526/2014 and connected matters.	<p>Point noted and will be complied.</p> <p>Vide order dated 14.07.2014, the Hon'ble Supreme Court directed MoEF&CC to complete the process of environmental clearance to the MSEZ project of APSEZ within eight weeks. MoEF&CC issued EC and CRZ clearance to the proposed project vide letter dated 15.07.2014. Hence, the SLP (Civil) no. 1526/2014 is deemed closed. Details of the same were submitted along with EC Compliance report for the period Apr'18 to Sep'18.</p>
ii.	Properly conserve the creeks, river and the mangroves area in the area.	<p>Complied.</p> <p>This reply covers condition no ii, iii, ix, x, xi, xii & xiii.</p> <p><u>Conservation of creeks and rivers:</u></p> <ul style="list-style-type: none"> • The prominent creek system (main creeks and small branches of creeks) in and around APSEZ are: (1) Kotdi (2) Baradimata (3) Navinal (4) Bocha (5) Mundra (Oldest port (Juna Bandar) leading to Bhukhi river). • Rivers passing through the APSEZ area are: (1) Khari (2) Nagmati (3) Phot (4) Bhukhi (5) Dhaneshwari (6) Buchiya (7) Jidal. • All the rivers passing through the SEZ area are dry throughout the year except for monsoon season. • All creeks as well as rivers are in existence allowing free flow of water and there is no filling or reclamation of any creek or river area. APSEZ has so far constructed 19 culverts having total length of approx. 1100 m with total cost of INR 20 Crores. Three RCC Bridges have also been constructed over Kotdi creek with total length of 230 m and cost of INR 10 Crores. Details were submitted along with compliance report submission for the period of Apr'17 to Sep'17. • This aspect is also confirmed from the recent study of NCSCM in 2017-18, which highlights the bathymetry data of

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2021
		<p>the entire coast around APSEZ.</p> <ul style="list-style-type: none"> From the bathymetry data it can be concluded that there are sufficient depths at the creek mouths and all creek mouths are open allowing flushing of water. From the APSEZ operations, there is no discharge of any sewage or effluent to the water streams. <p><u>Conservation of mangroves:</u></p> <ul style="list-style-type: none"> In and around APSEZ, approx. 1800 ha. mangrove area was identified by NIO in an EIA report prepared the year 1998. Out of this 1800 ha area, 1254 ha area was further demarcated as potential mangrove conservation by NIO in the year 2008 (as part of the EIA report of WFDP). It may be noted that the entire area of 1254 ha is not covered with mangroves. Entire area is being conserved and there is no disturbance to the mangroves in this area. Measures such as restricted entry and regular surveillance have resulted in overall growth of mangroves within this area. As per MoEF&CC directive, APSEZ entrusted NCSCM to demarcate mangroves in and around APSEZ area. As per their study, presently, mangrove cover in and around APSEZ is over 2340 ha. The analysis of the comparison between 2011 and 2016-17 has shown an overall growth of 246 ha. NCSCM final report on comprehensive and integrated plan for preservation and conservation of mangroves and associated creeks in and around has been submitted to the concerned authorities i.e. MoEF&CC, New Delhi and GCZMA, Gandhinagar vide our letter dated 04.06.2018 and details of the same were submitted along with half yearly EC Compliance report for the period Oct'18 to Mar'19. <p>Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and the recommendation for the same has been received vide email dtd 22nd Sept, 2020 with conditions. The copy of the same is attached as Annexure – 1.</p> <p>As a part of GCZMA recommendations and NCSCM mangrove conservation action plan, APSEZ has undertaken following activities.</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2021		
		Sr. No.	Recommendations	Compliance
		1.	Mangrove mapping and monitoring in and around APSEZ	<ul style="list-style-type: none"> APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island. As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%. This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction. NCSCM Report of the same is attached as Annexure – 2. The cost of the said study was INR 23.56 Lacs incurred by APSEZ.
		2.	Tidal observation in creeks in and around APSEZ	<ul style="list-style-type: none"> APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM. The observed tidal ranges indicate that the creeks experience normal tidal ranges, adequate for the growth of mangroves. Report of the same is incorporated in NCSCM report attached as Annexure – 2. The cost of the said activity was INR 1.0 Lacs.
		3.	Removal of Algal and Prosopis growth from mangrove areas	<ul style="list-style-type: none"> Algal and Prosopis growth monitoring was done in and around mangrove area and algal encrustation was found in some of the mangrove areas, which has been removed manually. Report of the same is attached as Annexure –3. The cost of the said activity was INR 1.2 Lacs.

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Sr. No.	Conditions	Compliance Status as on 31.03.2021	
		4. Awareness of mangroves importance in surrounding communities	<ul style="list-style-type: none"> Adani Foundation – CSR Arm of Adani group has done awareness camps/activities created in the community regarding importance of mangroves during the year 2020-21. Adani Foundation has also provided 6.7 lacs kg Dry Fodder and 11.6 lacs kg Green fodder in 20 villages of Mundra and Anjar Block to support the resource dependent villagers, to avoid their dependency on mangroves. The expenditure for fodder supporting activities was approx. 120.86 Lacs during last FY 2020-21. Village Gauchar land development for the fodder cultivation to made fodder sustain village & Avail green fodder in scarcity phase. With the support of Gauchar Seva Samiti Grassland development in Siracha – 85 Acre & Zarpara – 25 Acre done which resulted in total production of 82 ton. The brief details of the said activities are incorporated in attached CSR Report for the FY 2020-21 attached as Annexure – 4. Other than this dedicated security guard with gate system deployed by APSEZ across the coastal area and no any unauthorized persons allowed within coastal as well as mangrove areas.
iii.	Ensure that mouths of all the creeks are kept open to ensure flushing of the creeks.	Complied. <ul style="list-style-type: none"> The prominent creek system (main creeks and small branches of creeks) in and around APSEZ are: (1) Kotdi (2) Baradimata (3) Navinal (4) Bocha (5) Mundra (Oldest port (Juna Bandar) leading to Bhukhi river). All above creek mouths are open allowing free flow of water in to the creeks and surrounding areas and there is no filling or reclamation of any creek area. This aspect is also confirmed from the recent study of NCSCM which highlights the bathymetry data of the entire coast around APSEZ. From the bathymetry data it can be concluded that there 	

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Sr. No.	Conditions	Compliance Status as on 31.03.2021
		<p>are sufficient depths at the creek mouths and all creek mouths are open allowing flushing of water.</p> <ul style="list-style-type: none"> • Please refer Specific Condition no. ii for further details.
iv.	Bring the creeks to the condition as was seen in the satellite map of 2005 which will be a "reference" satellite map and a copy of which shall be sent to you separately.	<p>Not applicable</p> <p>This reply covers condition no iv, v, vi.</p> <p>The stated conditions were stipulated in the EC and CRZ clearance with respect to the pending SCNs and based on Ms. Sunita Narain committee report. In continuation to the SCNs and subsequent submissions by APSEZ, MoEF&CC issued a final order vide letter dated 18.09.2015 (which disposed the pending Show Cause Notices). Full compliance of the directions issued vide the said order is provided as Annexure – B.</p> <p>It may be noted that the stated conditions related to the satellite image of 2005 are not imposed to APSEZ as part of the said order. Hence, APSEZ has made submission to MoEF&CC vide letters dated 23.05.2016 and 07.11.2016. Copies of the said letters were submitted along with compliance submission for the period from Oct'16 to Mar'17. Further there are no directions from MoEF&CC.</p>
v.	Submit once in a year latest satellite map which can be compared with the reference satellite map of 2005 to ensure that no modifications in the creeks, rivers, mangroves and mouth of creeks have taken place.	
vi.	Any direction issued by the MoEF with respect to the report submitted by Ms Sunita Narain Committee shall be complied with by the Proponent as applicable.	
vii.	At its cost get Inspection study done once in a year by the organizations like NEERI or any organization approved by this Ministry to - (i) ensure compliance of all the EC conditions (ii) development of SEZ meeting of the environment norms, and (iii) advise any mid-term correction that can be introduced depending on the recommendation of the independent Third Party.	<p>Complied.</p> <p>NEERI has been appointed to carry out the inspection study for the year 2020-21 (Oct'20 to Sep'21) at a cost of INR 5 Lacs.</p> <p>Site visit was conducted on 26th November, 2020 and compliance report of the period from Apr'20 to Sep'20 was reviewed by NEERI. It has been concluded all the conditions stipulated in EC are being complied and there is no violation of any condition. Copy of the certificate is annexed as Annexure – 5.</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2021												
viii.	"Consent for Establishment" for the SEZ shall be obtained from Gujarat Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.	<p>Complied.</p> <p>Consent to Establish (CtE) is obtained for the project from Gujarat Pollution Control Board vide their letter no. GPCB/CCA-KUTCH-1044/ GPCB ID 31463/ 109800, dated 16.04.2012. Copy of the same was submitted to MoEF&CC, Regional Office, Bhopal vide our letter dated 5th Aug, 2014. The CtE was also submitted with compliance report submission for the period Oct'15 to Mar'16.</p> <p>The project has been developed as per Consent to Establish (CtE) and Consent to Operate (CtO) granted by SPCB. The present in-force CtO are mentioned below.</p> <table><tr><th>Permission</th><th>Project</th><th>Ref. No. / Order No.</th><th>Valid till</th></tr><tr><td>CtO – Fresh</td><td>Multi-Product SEZ</td><td>AWH – 88998</td><td>21.08.2022</td></tr><tr><td>CtO – Amendment</td><td>Multi-Product SEZ</td><td>AWH – 97361</td><td>21.08.2022</td></tr></table> <p>Copy of CtO and CtE were submitted along with half yearly EC Compliance report for the Oct'18 to Mar'19 and there is no further change.</p>	Permission	Project	Ref. No. / Order No.	Valid till	CtO – Fresh	Multi-Product SEZ	AWH – 88998	21.08.2022	CtO – Amendment	Multi-Product SEZ	AWH – 97361	21.08.2022
Permission	Project	Ref. No. / Order No.	Valid till											
CtO – Fresh	Multi-Product SEZ	AWH – 88998	21.08.2022											
CtO – Amendment	Multi-Product SEZ	AWH – 97361	21.08.2022											
ix.	PP shall get detailed bathymetry done for all the creeks and rivers within Port and SEZ areas along with mapping of co-ordinates, running length, HTL, CRZ boundary, mangrove area including buffer zone through NCSCM /NIOT. PP shall also get prepared a detailed action plan for conservation and protection of creeks /mangrove area etc through NCSCM/NIOT and submit the same to GCZMA for their examination and recommendation. GCZMA	<p>Complied</p> <p>Based on the MoEF&CC directions, APSEZ has entrusted NCSCM to carry out the detailed study. Scope of the study include the following:</p> <ul style="list-style-type: none">• Detail bathymetry and topography survey of creeks• Demarcation of mangrove areas and buffer zone• Demarcation of HTL and CRZ areas with co-ordinates• Preparation of a comprehensive and integrated conservation plan for protection of creeks and mangroves <p>In order to complete the study, NCSCM has carried out number of site surveys which are mentioned below:</p> <ul style="list-style-type: none">• Bathymetry survey of creeks• Topography survey of intertidal areas• Mangrove survey (health and area demarcation)• Sampling of soil and water for analysis of physico-chemical and biological parameters• Tide and currents data collection (including residence time of tidal water) study												

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Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2021
	will submit its recommendations to MoEF for approval.	<p>Based on the study, the following points can be summarized:</p> <ul style="list-style-type: none"> • There is no obstruction to any water stream (creeks / branches of creeks / rivers) • Presently, mangrove cover in and around APSEZ is over 2340 ha. There is substantial growth in mangrove cover to the tune of 246 ha (comparison between 2011 and 2016-17) • Majority of the development at Mundra has happened between this tenure. Hence it can be interpreted that the infrastructure development has not left any adverse impacts on ecology. <p>Please refer specific condition no. ii above for further details.</p>
x.	PP shall demarcate the CRZ area on land with GPS coordinates in consultation with GCZMA/ the agency which has done the HTL /LTL demarcation for the area. There shall be no allotment of plot/s in CRZ area to industries. No industrial activity within CRZ area except the port and harbor & the foreshore facilities shall be allowed as committed.	<p>Being complied</p> <p>For demarcation of HTL and CRZ areas, NCSCM is under process of finalizing CZMP for this area. Once the maps are finalized, NCSCM will issue the final maps for the project area of APSEZ. The said maps will then be submitted to GCZMA and MoEF&CC by APSEZ.</p> <p>In addition to that please note that</p> <ul style="list-style-type: none"> • There is no allotment of plot(s) in CRZ area to any industry. • Only those activities which are allowed within CRZ area are being carried out (with due approvals from concerned authorities) • No industrial activity within CRZ area except the port and harbor & the foreshore facilities are carried out.
xi.	Till the approval of action plan for conservation and protection of creeks /mangrove area, the CRZ area within SEZ shall be demarcated as "No Development Zone". PP shall not allow / undertake any development in CRZ area of SEZ.	<p>Complied</p> <p>The action plan for conservation of creeks and mangrove areas is prepared by NCSCM and the same is submitted to GCZMA and MoEF&CC for their examination and recommendation. The main action plan as per the study are mentioned summarized below:</p> <ul style="list-style-type: none"> • Monitoring of mangrove cover in Jan/Mar, 2020 using latest satellite images and validation with field observations • Monitoring of tidal range in the mangrove areas and comparison with the data collected during 2017. • Removal of silt / sand spits from the central part of navinal creek

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Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2021
		<ul style="list-style-type: none"> Dredging of shallow area off Bocha Island to reduce current velocity. <p>Please refer specific condition no. ii for further details w.r.t. Mangrove Conservation Action Plan.</p> <p>No development is carried out in the 'No Development Zone' (i.e. CRZ area of SEZ).</p>
xii.	The implementation of action plan approved by the MoEF shall be monitored by the NCSCM/NIOT. Compliance with action plan shall be submitted to GCZMA and to MoEF, RO at Bhopal along with six monthly monitoring report.	<p>Point noted and will be complied</p> <p>The action plan for conservation of creeks and mangrove areas is prepared by NCSCM and the same was submitted to GCZMA and MoEF&CC for their examination and recommendation.</p> <p>Please refer specific condition no. ii for further details w.r.t. Mangrove Conservation Action Plan.</p>
xiii.	PP shall earmark separate budget for the implementation of the above action plan. The details of the expenditure shall be submitted to GCZMA and to MoEF, RO at Bhopal along with six monthly monitoring report.	<p>Point noted and will be complied</p> <p>A separate budget has been allocated and incurred by APSEZ for implementation of mangrove conservation action plan.</p> <ul style="list-style-type: none"> Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island – 23.56 Lacs Algal & Prosopis Removal Work from mangrove area – 1.2 Lacs Tide Level Monitoring within creeks around APSEZ – 1.0 Lac Fodder supply to the villagers – 120.86 Lacs <p>Please refer specific condition no. ii above for further details.</p>
xiv.	All the industry in SEZ shall be connected through impervious drainage lines to the STP/CETP for the discharge of their sewage or industrial effluent. There shall not be any discharge to creeks / rivers. PP shall be	<p>Complied. s</p> <p>As per the Lease Deed agreement, existing industries are well connected with impervious pipeline to discharge their effluent / sewage after confirming to the inlet norms of CETP. Typical copy of the Lease Deed (Agreement) was submitted along with compliance report submission for the duration of Oct'16 to Mar'17.</p> <p>Entire quantity of treated wastewater from CETP is being</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2021
	accountable for implementing this condition and necessary clause shall be incorporated in the MoU while allotting the plot to the individual industries.	<p>utilized for horticulture purpose within SEZ area. No discharge is allowed in to creeks / rivers. Same practice will be continued in future as well and capacity enhancement of CETP will be carried out based on requirement.</p> <p>List of CETP member units were submitted along with half yearly EC compliance report for the period Oct'19 to Mar'20. And there is no further change.</p> <p>The industries which treat the sewage / effluent within their premises comply the stipulated norms of discharge given by GPCB. Through regular monitoring it is ensured by APSEZ that the treated water is used for gardening within the respective industries and there is no discharge to any water body including rivers or creeks.</p>
xv.	PP shall not carry out any river course modification.	<p>Complied</p> <p>The project was conceptualized in such a way that no river course modification is required to be carried out. All the rivers passing through SEZ are maintained through proper path for area drainage.</p>
xvi.	The individual industrial units shall obtain prior EC under EIA Notification, 2006 as applicable.	<p>Complied.</p> <p>All industrial units coming up in within the SEZ are informed and aware about the said requirement. Out of total units established within SEZ, only APL & Dorf Ketel falls under purview of EIA Notification 2006 and they have obtained their specific EC as applicable. During the compliance period of Oct'20 to March' 21, no new such industry has been established at SEZ which requires EC under EIA Notification, 2006. The condition is being followed on case to case basis as applicable.</p>
xvii.	Proponent shall identify 200 ha of land for mangrove plantation as per the condition laid by SEAC.	<p>Complied.</p> <p>100 Ha. Mangrove plantation is carried out by SAVE at Tala Tadav village of Khambhat Taluka of Anand district. A final report of SAVE was submitted along with half yearly compliance report for the period Apr'17 to Sep'17.</p> <p>100 Ha. Mangrove plantation is carried out by GEC. From which 38 ha. plantation is completed at Tala Tadav village of Khambhat Taluka of Anand district during 2017-18 and remaining 62 ha. Plantation is completed at Aliya Bet of</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2021
		Bharuch district during 2018-19. A final report of GEC was submitted along with half yearly compliance report for the period Oct'18 to Mar'19.
xviii.	50 meter buffer from the existing mangrove area should be provided for any developmental activity.	<p>Complied.</p> <p>50 meter buffer from the existing mangrove area as per the CRZ notification is being maintained and all developmental activities are being carried out as per the approval only.</p>
xix.	Proponent shall develop the green belt with 3 layers of canopy all along the periphery.	<p>Being complied.</p> <p>APSEZ has developed "Dept. of Horticulture" which is taking measures/ steps for terrestrial greening as well as mangrove plantation. Development of greenbelt at various locations within the SEZ is an ongoing activity. Green belt of 3 layer canopy will be developed as part of the development of SEZ.</p> <p>The species such as Ficus Infectoria, Ficus religiosa, Terminalia arjuna, Cocos nucifera, Washingtonia fillifera, Casurina spp., Azadirachta Indica, Eucalyptus spp., Jatropha curacus, Ficus bengalensis, Subabool spp., Casia fistula, Date Palm and Delonix regia were grown in SEZ area.</p> <p>Width of the green belt varies from 2 m to 8 m and density varies from 2000 to 2500 trees per hectare at various locations. Total 116.6 hectares of land with approx. 2.55 Lacs trees is developed within SEZ area till date. So, far APSEZ has developed 476.5 Ha area as greenbelt with plantation 9.3 Lacs trees within the entire APSEZ area.</p> <p>Please refer Annexure – 6 for further details regarding greenbelt development and mangrove afforestation. An updated green belt development plan is also attached as part of the said annexure. Total expenditures of the horticulture dept. for the financial year of 2020-21 have been INR 689 lakh.</p> <p>It may be noted that individual industrial units has developed the greenbelt within their premises based on their planning & approvals and new industries coming up any will also comply as per their approvals. The same is being ensured by the environment monitoring committee of APSEZ.</p> <p>For the area where further development is yet to be carried</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2021																					
		out, APSEZ will ensure that greenbelt with 3 layer canopy is developed by either APSEZ or the industrial unit to whom the land is allotted. Photographs showing the 3 layer canopy greenbelt developed within APSEZ were along with half yearly compliance report for the period Oct'18 to Mar'19.																					
xx.	All the recommendation of the EMP shall be complied with in letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.	<p>Complied.</p> <p>Compliance report of environmental management plan and mitigation measures proposed as part of the EIA report is summarized below. The same is submitted to the concerned authorities including MoEF&CC, RO, Bhopal as part of the six monthly compliance reports. Details of the past six compliance reports are mentioned below.</p> <table border="1"> <thead> <tr> <th>Sr. no.</th><th>Compliance period</th><th>Date of submission</th></tr> </thead> <tbody> <tr> <td>1</td><td>Oct'17 to Mar'18</td><td>29.05.2018</td></tr> <tr> <td>2</td><td>Apr'18 to Sep'18</td><td>30.11.2018</td></tr> <tr> <td>3</td><td>Oct'18 to Mar'19</td><td>31.05.2019</td></tr> <tr> <td>4</td><td>Apr'19 to Sep'19</td><td>28.11.2019</td></tr> <tr> <td>5</td><td>Oct'19 to Mar'20</td><td>20.05.2020</td></tr> <tr> <td>6</td><td>Apr'20 to Sep'20</td><td>26.11.2020</td></tr> </tbody> </table> <p>Summary of the compliance to the measures suggested in EMP are given in Annexure – 7.</p>	Sr. no.	Compliance period	Date of submission	1	Oct'17 to Mar'18	29.05.2018	2	Apr'18 to Sep'18	30.11.2018	3	Oct'18 to Mar'19	31.05.2019	4	Apr'19 to Sep'19	28.11.2019	5	Oct'19 to Mar'20	20.05.2020	6	Apr'20 to Sep'20	26.11.2020
Sr. no.	Compliance period	Date of submission																					
1	Oct'17 to Mar'18	29.05.2018																					
2	Apr'18 to Sep'18	30.11.2018																					
3	Oct'18 to Mar'19	31.05.2019																					
4	Apr'19 to Sep'19	28.11.2019																					
5	Oct'19 to Mar'20	20.05.2020																					
6	Apr'20 to Sep'20	26.11.2020																					
xxi.	There shall be no disturbance to the sand dunes. The pipelines shall be laid using advanced method viz. Horizontal Directional Drilling (HDD) so as to avoid disturbance to the sand dunes/creeks/mangroves.	<p>Complied.</p> <p>There is no sand dune in the SEZ area.</p> <p>Point noted. No pipelines for intake and outfall of sea water are laid till now and same will be studied as and when required. HDD method will be explored for creek crossing for other pipelines.</p>																					
Part – B: General Conditions																							
	Construction Phase																						
i	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe	<p>Not applicable at present.</p> <p>Most of the construction labours reside in the nearby villages where all basic facilities are easily available. There are no housing requirements for labours inside the project area.</p>																					

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Sr. No.	Conditions	Compliance Status as on 31.03.2021
	drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	
ii	A first aid room will be provided in the project both during construction and operation of the project.	<p>Complied.</p> <p>APSEZ has established Occupational Health Center & First Aid facility at different locations within SEZ, which will be utilized during entire construction as well as operation phase of SEZ project. In case of emergency situation requiring higher level of treatment, the facilities at Adani hospital (Multi-Specialty) having 110 bed facilities located with SEZ area can be utilized.</p>
iii	All the topsoil excavated during construction phase should be stored for use in horticulture/landscape development within the project site.	<p>Complied.</p> <p>Excavated topsoil, if any, will be used for the horticulture /landscape development within the project site.</p>
iv	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed, taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.	<p>Complied.</p> <p>No excavated muck has been generated and disposed-off. Construction waste, if any, is utilized for area development within the project site.</p>
v	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	<p>Complied.</p> <p>Environment Monitoring is being carried out on regular basis in Port & SEZ areas through NABL accredited and MoEF&CC approved agency namely M/s. Pollucon Laboratories Pvt. Ltd. Summary of the ground water as well as soil assessment for duration from Oct'20 to Mar'21 is mentioned below.</p> <p><u>Bore Hole Water Sampling:</u></p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2021				
		Sampling locations & frequency: 2 nos. (Half Yearly)				
		Sr. No.	Parameter	Unit	Max. Value	Min. Value
		1	pH	--	8.07	7.64
		2	Salinity	ppt	28	2.84
		3	Oil & Grease	mg/L	ND*	ND*
		4	Hydrocarbon	mg/L	ND*	ND*
		5	Lead as Pb	mg/L	0.038	0.038
		6	Arsenic as As	mg/L	ND*	ND*
		7	Nickel as Ni	mg/L	ND*	ND*
		8	Total Chromium as Cr	mg/L	0.03	0.027
		9	Cadmium as Cd	mg/L	ND*	ND*
		10	Mercury as Hg	mg/L	ND*	ND*
		11	Zinc as Zn	mg/L	0.56	0.31
		12	Copper as Cu	mg/L	ND*	ND*
		13	Iron as Fe	mg/L	0.32	0.2
		14	Insecticides/Pesticides	mg/L	ND*	ND*
		15	Depth of Water Level from Ground Level	meter	2.3	2.25
		*ND = Not Detected				
		Comparison of the present data with baseline data for the nearest locations for Soil.				
		Sr. No.	Parameter	Unit	Dhrub station	Zarpara village
		1	pH	--	7.64	8.1
		2	Lead as Pb	mg/L	ND*	ND*
		3	Nickel as Ni	mg/L	ND*	0.146
		4	Total Chromium as Cr	mg/L	0.03	0.039
		5	Iron as Fe	mg/L	0.32	0.258
		6	Insecticides/Pesticides	mg/L	Absent	ND*
		7	Depth of Water Level from GL	meter	2.3	1.7
		*ND = Not Detected				
		Soil Sampling:				
		Sampling locations & frequency: 4 nos. (Half Yearly)				
		Sr. No.	Parameter	Unit	Max. Value	Min. Value
		1	pH	--	9.33	8.26
		2	Nitrogen as N	%	0.22	0.03
		3	Phosphorus as P	mg/kg	354.00	177.00
		4	Potassium as K	mg/kg	236.00	93.00
		5	Baron as B	mg/kg	2.40	1.68
		6	Calcium as Ca	mg/kg	446.00	340.00
		7	Magnesium as Mg	mg/kg	768.00	328.00
		8	Iron as Fe	%	0.61	0.46
		9	Moisture	%	7.61	5.13
		10	Organic Matter	%	0.65	0.15
		11	CEC	meq/100 gm	10.60	9.84
		12	TVC	CFU/gm	2.2 x 10 ⁶	1.9 x 10 ⁵
		Heavy Metal				
		13	Cadmium as Cd	mg/kg	ND*	ND*
		14	Antimony as Sb	mg/kg	ND*	ND*
		15	Arsenic as As	mg/kg	ND*	ND*
		16	Thorium as Th	mg/kg	ND*	ND*
		17	Lead as Pb	mg/kg	ND*	ND*

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2021																																																					
		18	Chromium (VI) as Cr	mg/kg	ND*	ND*																																																	
		19	Cobalt as Co	mg/kg	10.80	24.40																																																	
		20	Copper as Cu	mg/kg	11.16	39.21																																																	
		21	Nickel as Ni	mg/kg	9.34	17.18																																																	
		22	Manganese as Mn	mg/kg	221.00	321.00																																																	
		23	Vanadium as V	mg/kg	7.30	8.70																																																	
						*ND = Not Detected																																																	
Comparison of the present data with baseline data for the nearest locations for Soil.																																																							
<table><tr><th>Sr. No.</th><th>Parameter</th><th>Unit</th><th>Dhrub station</th><th>Zarpara village</th></tr><tr><td>1</td><td>pH</td><td>--</td><td>8.95</td><td>6.45</td></tr><tr><td>2</td><td>Nitrogen as N</td><td>%</td><td>0.137</td><td>1.38 gm/kg</td></tr><tr><td>3</td><td>Phosphorus as P</td><td>mg/kg</td><td>254</td><td>1230</td></tr><tr><td>4</td><td>Potassium as K</td><td>mg/kg</td><td>130</td><td>62120</td></tr><tr><td>5</td><td>Calcium as Ca</td><td>mg/kg</td><td>390</td><td>1500</td></tr><tr><td>6</td><td>Magnesium as Mg</td><td>mg/kg</td><td>364</td><td>1580</td></tr><tr><td>7</td><td>Iron as Fe</td><td>%</td><td>0.58</td><td>1.34</td></tr><tr><td>8</td><td>Organic Matter</td><td>%</td><td>0.65</td><td>0.98</td></tr><tr><td>9</td><td>CEC</td><td>meq/100 gm</td><td>9.84</td><td>7.4</td></tr></table>						Sr. No.	Parameter	Unit	Dhrub station	Zarpara village	1	pH	--	8.95	6.45	2	Nitrogen as N	%	0.137	1.38 gm/kg	3	Phosphorus as P	mg/kg	254	1230	4	Potassium as K	mg/kg	130	62120	5	Calcium as Ca	mg/kg	390	1500	6	Magnesium as Mg	mg/kg	364	1580	7	Iron as Fe	%	0.58	1.34	8	Organic Matter	%	0.65	0.98	9	CEC	meq/100 gm	9.84	7.4
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From the above results it can be inferred that																																																							
<ul style="list-style-type: none">• The ground level in this area is saline in nature due to close proximity to the coast.• There is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.• There is no leaching of heavy metals and other toxic contaminants through soil.																																																							
Please refer Annexure – 8 for detailed analysis reports. Approx. INR 19.17 Lakh is spent for all environmental monitoring activities during the FY 2020-21 for overall APSEZ, Mundra.																																																							
vi	Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.	Complied.																																																					
		Construction spoils including bituminous material is being kept at identified temporary storage area outside CRZ and is being utilized for area development purpose as and when required.																																																					
		Hazardous materials such as diesel, lube oil etc. are handled with utmost care and all applicable rules are followed. Storage area is provided with paving and spill kit to ensure there is no contamination to soil or ground water.																																																					
		Used oil is sold to GPCB approved recycler namely M/s. Aroma Petrochem, Bhavnagar and Aviation Corporations, Bhachau.																																																					

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Sr. No.	Conditions	Compliance Status as on 31.03.2021
		<p>Oily rags are being disposed through co-processing at cement industries namely M/s. Ambuja Cement Ltd., Kodinar. Dates of validity of all the vendors and details of the same were submitted along with last half yearly EC compliance report for the period Apr'18 to Sep'18. Necessary approvals from GPCB for disposal of hazardous wastes are obtained. Authorization copy was submitted with compliance report submission for the period Apr'17 to Sep'17.</p> <p>Individual units within SEZ are handling their hazardous wastes as per Hazardous waste rules – 2016 after obtaining necessary permissions from GPCB.</p>
vii	Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Gujarat Pollution Control Board.	<p>Complied.</p> <p>All the hazardous wastes are being handled as per Hazardous Waste Rules – 2016.</p> <p>Please refer Point No. vi (General Condition: Construction Phase) for further details.</p>
viii	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.	<p>Complied.</p> <p>DG sets are being used only as power back up source in case of power failure. Presently, cumulative capacity of all DG sets installed at APSEZ within SEZ area is 3410 KVA. During the compliance period of Apr'19 to Sep'19, there was no instance of power failure hence it was not required to operate the DG sets.</p> <p>All the DG sets are of low sulphur diesel type. Details of the same were submitted along with last half yearly compliance report for the period Apr'20 to Sep'20. DG sets are being used in conformance to the EPA norms and proof for the same was submitted along with compliance period i.e. Apr'17 to Sep'17.</p>
ix	The diesel required for operating DG sets shall be stored in underground tanks if required; clearance from Chief Controller of Explosives shall be taken.	<p>Complied.</p> <p>Diesel is stored in the underground tank located in existing port area and approval of the same from Chief Controller of Explosives is obtained from PESO with License no. P/HQ/GJ/15/5188 (P283539) dated 23.01.2020 and is valid till 31.12.2022. Details of the same were submitted along with half yearly EC Compliance report for the period Oct'19 to</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2021																																													
		Mar'20.																																													
x	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should operate only during non-peak hours.	<p>Complied.</p> <p>The vehicles of on-going construction work enter inside the premises only after passing through the fitness check at vehicle health-check centre established by APSEZ. At the vehicle health check-up centre, parking light, reverse light, Horne, wheel, breaks, mirror, etc. are checked before allowing the vehicle to enter the site.</p> <p>APSEZ has also established a licenced PUC station to monitor the compliance with applicable Motor Vehicle Act for vehicles. Details were submitted along with half yearly EC compliance report for the period Apr'18 to Sep'18.</p> <p>Majority of the vehicles bringing construction materials are operated during non-peak hours.</p>																																													
xi	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/GPCB.	<p>Complied.</p> <p>Ambient Air Quality and Noise monitoring are being carried out by NABL accredited and MoEF&CC authorized agency namely M/s. Pollucon Laboratories Pvt. Ltd. Summary of the same for duration from Apr'20 to Sep'20 is mentioned below.</p> <p>Air sampling locations & frequency: 8 nos. (twice a week) & Noise sampling locations & frequency: 5 nos. (once in a month)</p> <table><tr><th>Parameter</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit^{\$}</th></tr><tr><td colspan="5">AAQM</td></tr><tr><td>PM₁₀</td><td>µg/m³</td><td>96.75</td><td>41.12</td><td>100</td></tr><tr><td>PM_{2.5}</td><td>µg/m³</td><td>54.36</td><td>15.64</td><td>60</td></tr><tr><td>SO₂</td><td>µg/m³</td><td>26.59</td><td>10.50</td><td>80</td></tr><tr><td>NO₂</td><td>µg/m³</td><td>45.32</td><td>14.52</td><td>80</td></tr><tr><td>Noise</td><td>Unit</td><td>Leq Max</td><td>Leq Min</td><td>Leq Perm. Limit*</td></tr><tr><td>Day Time</td><td>dB(A)</td><td>73.8</td><td>41.2</td><td>75</td></tr><tr><td>Night Time</td><td>dB(A)</td><td>69.7</td><td>40.3</td><td>70</td></tr></table> <p>^{\$} as per NAAQ standards, 2009 * as per CC&A granted by GPCB Values recorded confirms to the stipulated standards.</p> <p>Such environmental monitoring is being carried out on</p>	Parameter	Unit	Max	Min	Perm. Limit ^{\$}	AAQM					PM ₁₀	µg/m ³	96.75	41.12	100	PM _{2.5}	µg/m ³	54.36	15.64	60	SO ₂	µg/m ³	26.59	10.50	80	NO ₂	µg/m ³	45.32	14.52	80	Noise	Unit	Leq Max	Leq Min	Leq Perm. Limit*	Day Time	dB(A)	73.8	41.2	75	Night Time	dB(A)	69.7	40.3	70
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Sr. No.	Conditions	Compliance Status as on 31.03.2021
		<p>continuous basis at stipulated frequencies. The analysis results are being closely observed for incremental pollution load. From the above results and past data, it can be inferred that the emission levels are well within the prescribed standards. All the analysis data collected are submitted to the concerned authorities as part of the six monthly compliance reports. The data is also submitted to GPCB on monthly basis as part of the online submission – Monthly Patrak.</p> <p>Please refer Annexure – 8 for detailed analysis reports and accreditation certificates. Approx. INR 19.17 Lakh is spent for all environmental monitoring activities during the FY 2020-21 for overall APSEZ, Mundra.</p> <p>Following safeguard measures are taken for abatement of dust and noise emissions.</p> <ul style="list-style-type: none"> • Regular sprinkling on road and other open area • Regular cleaning of roads through mechanized equipments • Development of greenbelt along the periphery of the storage yards/back up area • D.G. Sets having Acoustic enclosures • Transportation of loose dry cargo through covered vehicles / wagons / conveyer system • Regular maintenance of plant machineries and equipments
xii	<p>Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within 100 Kms of Thermal Power Stations).</p>	<p>Complied.</p> <p>Part of fly ash generated from Adani Power Limited, Mundra is being utilized by Adani Group to manufacture paver blocks and the same paver blocks are used for development of back up area, footpath, colonies area, parking area, approach road etc.</p> <p>APSEZ has utilized approx. 298 MT of fly ash to manufacture paver block during the period of Oct'20 to Mar'21. Details of methodology for manufacturing of paver blocks were submitted along with half yearly EC compliance report for the period Apr'18 to Sep'18.</p> <p>Fly ash based PPC cement is used for construction activity.</p>
xiii	<p>Ready mixed concrete must be used in building</p>	<p>Complied.</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2021
	construction.	Only RMC is used for construction activity.
xiv	Storm water control and its re-use should be regulated as per CGWB and BIS standards for various applications.	<p>Complied.</p> <p>Storm water drainage systems are provided. There are no perennial rivers and the possibility of storm water run-off is only during monsoon season. The area is receiving scanty rainfall and there is no continuous flow of water during monsoon. Therefore presently, the storm water drainage is designed to facilitate the area drainage meeting with the downstream part of water area.</p>
xv	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other referred best practices.	<p>Complied.</p> <p>Only RMC is used for construction activity.</p>
xvi	Permission to draw ground water shall be obtained from the competent Authority prior to construction /operation of the project.	<p>Complied.</p> <p>No ground water is used during construction & operation stage of the project. Current sources of water are Narmada water through GWIL and desalination plant of APSEZ Average, water consumption for entire APSEZ area is 4.16 MLD during the compliance period Oct'20 to Mar'21.</p>
xvii	Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.	<p>Not applicable</p> <p>As per the master planning all types of waste water generated are transferred through common conveying system for providing desired treatment at CETP. Treated waste water is utilized for gardening purpose within the premises of APSEZ / individual industries.</p> <p>It may be noted that condition number xvi to xxi are imposed on all member industries coming up within the SEZ areas (as part of the Lease Deed agreement). The same practice will be continued in future also. As suggested by RO, Bhopal during the site visit, an environment monitoring committee is formed which are ensuring strict compliance of the stipulated conditions by individual industries.</p>
xviii	Fixtures for shower, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing	<p>Complied.</p> <p>Water flow reducers are installed at various locations within APSEZ. The water flow reducers consume approx. 66% less water compared to the normal tap. Water free urinals are also</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Sr. No.	Conditions	Compliance Status as on 31.03.2021
	devices or sensor based control.	<p>installed at Port User Buildings for water conservation. In phase wise manner, all the fixtures will be replaced with such water efficient devices.</p> <ul style="list-style-type: none"> Water flow reducers (total 8740 nos.) are provided in taps of various operation and administrative buildings to reduce the water consumption and are in use. Total 128 Water-free urinals are installed and in operation within APSEZ.
xix	Use of glass may be reduced by up to 40% to reduce the electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows.	<p>Complied</p> <p>Majority of the building envelopes are constructed with energy efficient building materials. While using glass, wherever required, it is ensured that only high quality glass with reflective coating is used.</p>
xx	Roof should meet prescriptive requirements as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirements.	<p>Complied</p> <p>Majority of the building envelopes (including roofs) are constructed with ECBC compliant building materials having appropriate thermal insulation.</p>
xxi	Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfil these requirement.	<p>Complied</p> <p>Majority of the building envelopes (including walls) are constructed with ECBC compliant building materials having appropriate thermal insulation.</p>
xxii	The approval of the competent authority shall be obtained for structural	<p>Complied</p> <p>Mundra falls in seismic zone V. All the building structures</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Sr. No.	Conditions	Compliance Status as on 31.03.2021
	safety of the buildings due to earthquake, adequacy of firefighting equipments, etc. as per National Building Code including protection measures from lightning etc.	constructed, if any, will meet the requirements of the applicable guidelines for safety. The same practice will continue in future also. However, being a developer no buildings are constructed by APSEZ.
xxiii	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.	<p>Complied.</p> <p>SEZ industries were visited to check measures taken for Energy Conservation, Water Conservation, Waste and Hazardous waste management and phase out plan of Ozone depleting substance during the compliance period. Various industries shared the data in line with above reference. Details of the same were submitted along with EC compliance report for the period Apr'18 to Sep'18.</p> <p>It may be noted that condition number xvi to xxi are imposed on all member industries coming up within the SEZ areas (as part of the Lease Deed agreement). The same practice will continue in future also. As suggested by RO, Bhopal during the site visit, an environment monitoring committee is formed and ensures strict compliance of the stipulated conditions by individual industries.</p> <p>EMS and Compliance verification of individual SEZ units carried out during the compliance period w.r.t. Water & Wastewater Management, Air Management, Hazardous & Non-Hazardous Waste Management, Greenbelt, etc. in line with their statutory permissions and there was no any major non-compliance observed.</p>
xxiv	Under the provisions of Environment (Protection) Act 1986, legal action shall be initiated against the project proponent if it is found that construction of the project has been started without obtaining environmental clearance.	<p>Point noted.</p> <p>Wherever applicable, construction activities have started only after obtaining environmental clearance.</p>
	Operation Phase	
i.	The PP while issuing the	Complied.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Sr. No.	Conditions	Compliance Status as on 31.03.2021									
	allotment letter to individual member units shall specifically mention the allowable maximum quantity of water usage and effluent generated by each member unit.	Provisions are made while issuing the allotment letter to individual member units for specifically mentioning the allowable maximum quantity of water usage and effluent generated by each member unit. Sample copy of one of such letter was submitted along with compliance report submission for the period Oct'16 to Mar'17.									
ii.	The PP shall establish an environmental monitoring cell with all the potential polluting units as members to review the environmental monitoring data and suggest improvements.	<p>Complied.</p> <p>APSEZL 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) at Corporate, who heads the Environment Management Cell who directly reports to the top management. Environment Management Cell Organogram is attached as Annexure – 9.</p> <p>Separate budget for the Environment protection measures is earmarked every year. All environment and horticulture activities are considered at corporate level and budget allocation is done accordingly. No separate bank account is maintained for the same however, all the expenses are recorded in advanced accounting system of the organization.</p> <p>Budget for environmental management measures (including horticulture) for the FY 2020-21 is to the tune of INR 1257 lakh. Out of which, Approx. INR 1086 lakh are spent during the year 2020-21. Detailed breakup of the expenditures for the past 3 years is attached as Annexure – 10.</p> <p>Please refer Point No. xxiii (General Condition: Construction Phase) for further details.</p>									
iii.	Treated effluent emanating from STP shall be recycled / reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and	<p>Complied.</p> <p>APSEZ has total installed capacity of 6.07 MLD for treatment of effluent / sewage generated at various locations. Details regarding the same are mentioned below. The treated sewage from these decentralized units meets the norms stipulated by GPCB and it is used for gardening purpose.</p> <table border="1"> <thead> <tr> <th>Location</th><th>Capacity</th><th>Technology</th></tr> </thead> <tbody> <tr> <td>CETP</td><td>2.5 MLD</td><td>Aerobic Digestion</td></tr> <tr> <td>Shantivan Colony STP</td><td>350 KLD</td><td>Aerobic Digestion</td></tr> </tbody> </table>	Location	Capacity	Technology	CETP	2.5 MLD	Aerobic Digestion	Shantivan Colony STP	350 KLD	Aerobic Digestion
Location	Capacity	Technology									
CETP	2.5 MLD	Aerobic Digestion									
Shantivan Colony STP	350 KLD	Aerobic Digestion									

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2021		
	standards of the Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.	Shantivan Colony STP	250 KLD	Aerobic Digestion
		Adani House STP	150 KLD	PVA Gel Technology
		Samudra Township STP	2.5 MLD	MBR
		Liquid Terminal ETP	265 KLD	Aerobic Digestion
		West Port STP	55 KLD	FAB
		CETP of 2.5 MLD capacity is also constructed in SEZ area (having a separate independent environmental clearance). Sewage generated from individual industry is treated by individual industry itself. However, some of the industries are giving their sewage to the CETP for treatment and final disposal. List of CETP member units were submitted along with half yearly EC compliance report for the period Oct'19 to Mar'20. And there is no further change.		
		The treated effluent from CETP confirms to the GPCB norms. Treated water is used for gardening / horticulture purpose within CETP premises and SEZ areas. Online monitoring system at the discharge point is provided to get the system alert in case of any deviation from discharge norms.		
		STP of 2.5 MLD capacity is also constructed in SEZ area as part of social infrastructure project (having a separate independent environmental clearance).		
		Assessment of treated sewage is being carried out by NABL accredited and MoEF&CC approved agency namely M/s. Pollucon Laboratories Pvt. Ltd. The summary of analysis results is mentioned below.		
		Treated Water Analysis (Frequency Twice in a Month – 2 STPs)		
Parameter	Unit	Max	Min	Perm. Limit ^{\$}
pH	--	8.20	7.04	6.5 to 9.0
TSS	mg/L	24	8	100
BOD (3 Days @ 27 °C)	mg/L	27	10	30
Residual Chlorine	ppm	0.8	0.6	--
Fecal Coliform	MPN/ 100 ml	540	110	< 1000
^{\$} as per CC&A granted by GPCB				
Please refer Annexure – 8 for detailed analysis reports. Approx. INR 19.17 Lakh is spent for all environmental monitoring activities during the FY 2020-21 for overall APSEZ.				

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Sr. No.	Conditions	Compliance Status as on 31.03.2021
		<p>Mundra.</p> <p>Greenbelt area developed around the treatment plants act as barrier for odour. In addition to this, regular supervision is done to ensure there is no odour problem from any of the treatment plants.</p>
iv.	<p>The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.</p>	<p>Complied.</p> <p>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.</p> <p>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).</p> <p>Hazardous & Other Waste:</p> <ul style="list-style-type: none"> • 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 & Used Batteries are being sold to GPCB registered recyclers namely M/s. e-Processing House and Sabnam Enterprise respectively. • Solid Hazardous Waste is being disposed through co-processing / incineration through common facility i.e. M/s. Saurashtra Enviro Projects Pvt. Ltd., Bhachau and/or cement industries of Ambuja Cement Ltd., Kodinar. Used/Waste Oil is being sold to GPCB authorized recyclers / re-processors namely M/s. Aroma Petrochem, Bhavnagar & Aviation Corporation, Kutch. It is also being reused within

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Sr. No.	Conditions	Compliance Status as on 31.03.2021																											
		<p>organization for lubrication purpose.</p> <ul style="list-style-type: none"> Discarded drums / barrels are being sold to authorized decontamination facility i.e. M/s. Aroma Petrochem, Bhavnagar and 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. 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. Aroma Petrochem, Bhavnagar & Aviation Corporation, Kutch and water is sent to ETP for further treatment. However during the compliance period, there was no receipt or disposal of Slope Oil. <p>Details of permissions / agreements of hazardous waste authorized vendors were submitted along with half yearly EC Compliance Report for the period Apr'18 to Sep'18. Renewed / Updated details (authorization / agreement) of hazardous / Non-hazardous handling approved agencies are attached as Annexure – 11.</p> <p>The following table summarizes the waste management practice (from Oct'20 to Mar'21) for different types of wastes at APSEZ:</p> <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>5.87</td><td rowspan="3">Co-processing at cement industries</td></tr> <tr> <td>Oily Cotton waste</td><td>54.02</td></tr> <tr> <td>ETP Sludge</td><td>8.48</td></tr> <tr> <td>CETP Sludge</td><td>2.26</td><td>Landfilling at common TSDF site</td></tr> <tr> <td>Tank Bottom Sludge</td><td>34.62</td><td>Sell to registered recycler</td></tr> <tr> <td rowspan="2">Used / Spent Oil</td><td>270.35</td><td>Sell to registered recycler</td></tr> <tr> <td>0.7</td><td>Reuse within premises</td></tr> <tr> <td>Discarded Containers</td><td>19.49</td><td>Sell to registered recycler</td></tr> </table>	Type of Waste	Quantity in MT	Disposal method	Hazardous Waste			Pig Waste	5.87	Co-processing at cement industries	Oily Cotton waste	54.02	ETP Sludge	8.48	CETP Sludge	2.26	Landfilling at common TSDF site	Tank Bottom Sludge	34.62	Sell to registered recycler	Used / Spent Oil	270.35	Sell to registered recycler	0.7	Reuse within premises	Discarded Containers	19.49	Sell to registered recycler
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Sr. No.	Conditions	Compliance Status as on 31.03.2021		
			1.9	Reuse within premises
		Expired Paints	13.34	Incineration at CHWIF Site
		Other Waste		
		Battery Waste	12	Sell to registered recycler
		Bio Medical Waste	2.45	To approved CBWTF Site
		Non-Hazardous Waste		
		Recyclables Dry Waste	1797.52	After recovery sent for recycling / Reuse within premises
			4 Nos. (Scrap Vehicle)	
		Non-Recyclable Dry Waste (RDF)	204.47	Co-processing at Cement Industries
		Wet Waste (Food waste + Organic waste)	448.97	Converted to Manure for Horticulture use / Biogas for cooking purpose
		STP Sludge	15	Used as a Manure for horticulture purpose
		Please refer Point No. xxiii (General Condition: Construction Phase) for further details.		
v.	Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operational phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Low sulphur diesel should be used. The location of the DG sets may be decided in consultation with the Gujarat Pollution Control Board.	Complied. DG sets are being used only as power back up source in case of power failure. Please refer Point No. viii & ix (General Condition: Construction Phase) for further details. Heights of stacks are maintained as needed for the combined capacity of all attached DG Sets. Locations of the DG sets are checked by GPCB officials during the site visits. Details of all DG set stack heights are mentioned below.		
		Sr. No.	DG Location	Capacity/KVA
		1	Adani House	750
		2	PUB	500
		3	PMC Store	82.5
		4	R&D Yard	50
		5	North Gate	320
		6	CRC North Gate	5
		7	North in Gate	5
		8	North Outgate	5
		9	WTP	380
		10	East Gate	30
		11	Airport	140
		12	Airport	125
		13	Gohersama Gate	5
		14	Airport crossing Gate	5
		15	Kharimithi Road Gate	5
		16	Adani Hospital	500
		17	Old port Gate	5

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Sr. No.	Conditions	Compliance Status as on 31.03.2021			
		18	West Gate	30	
		19	MRSS	250	
		20	MITAP Substation	62.5	
		21	Zarpara Gate	5	
		22	Navinal Gate	5	
		23	Culvert NO 109	5	
		24	Culvert NO 109	15	
		25	Agri Park	125	
vi.	Noise should be controlled to ensure that it does not exceed the prescribed standards, During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.	<p>Complied.</p> <p>Noise monitoring is being carried out by NABL accredited and MoEF&CC authorized agency namely M/s. Pollucon Laboratories Pvt. Ltd.</p> <p>Please refer Point No. xi (General Condition: Construction Phase) for further details.</p>			
vii.	Green belt of adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.	<p>Being complied.</p> <p>APSEZ has developed "Dept. of Horticulture" which is taking measures/ steps for terrestrial greening as well as mangrove plantation. Development of greenbelt at various locations within the SEZ is an ongoing activity.</p> <p>Please refer condition no. xix (Specific Condition) for further details.</p>			
viii.	Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.	<p>Complied.</p> <p>Boundary walls are constructed in such a way by keeping weep holes for defined river path to facilitate free flow of water and it is ensured that water is not stagnant at any given point during rainy season.</p>			
ix.	Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented.	<p>Complied.</p> <p>Groundwater recharge cannot be done at the project site since the entire project is in the intertidal / sub tidal areas. Rain water within project area is managed through storm water drainage.</p> <p>We have installed Rain water recharge bore well (4 Nos.)</p>			

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Sr. No.	Conditions	Compliance Status as on 31.03.2021
		<p>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 last compliance period Approx. 6.5 ML of rain water has been recharged to increase the ground water table.</p> <p>We have also connected roof top rain water duct of operational building (Tug berth building within MPT) with u/g water tank for utilization of collected rain water for gardening / horticulture purpose. Details of the same were submitted along with EC Compliance report for the period Oct'18 to Mar'19.</p> <p>However, Adani Foundation – CSR arm of Adani Group has carried out rainwater harvesting activities in the nearby villages for benefit of the locals.</p> <p>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. Including this a big recharge operation by bunding was taken up for Zarpara village as rainfall was very good last FY 2020-21.</p> <p>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.</p> <p>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 Government Figures.</p> <p>Our water conservation work is as below.</p> <ul style="list-style-type: none"> • A large number of water harvesting structure (18 Nos. of check dams in coordination with salinity department) • Ground recharge activities (pond deepening work for more than 52 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 • Roof Top Rain Water Harvesting 54 Nos. which is having 10,000

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Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2021
		<p>liter storage which is sufficient for one year drinking water purpose for 5 people family.</p> <ul style="list-style-type: none"> • Recharge Bore well 75 Nos which is best ever option to • Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which bore well depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar. • AF has covered 295 farmers and 1422 acre drip irrigation area in last two years which is remarkable for water conservation in first phase—in this phase we have covered 66 farmers and 360 Acre land for the same. Total 968 Farmers and 5626 Acre Drip since 2011-12 to 2020-21. <p>With the objective of to preserve the rain water 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.</p> <p>Please refer Annexure – 4 for full details of CSR activities carried out by Adani Foundation in the Mundra region.</p> <p>It may be noted that the individual industrial units will also be encouraged for taking various initiatives for rainwater harvesting within their premises / in the villages around the SEZ area.</p>
x.	The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.	<p>Complied.</p> <p>Ground Water Monitoring is being carried out on regular basis in SEZ areas through NABL accredited and MoEF&CC approved agency namely M/s. Pollucon Laboratories Pvt. Ltd.</p> <p>Please refer Point No. v (General Condition: Construction Phase) for further details.</p> <p>It may be noted that the analysis results of ground water quality are submitted to CGWB, West Central region, Ahmedabad vide our e-mail dated 13.05.2021. Details of the same are attached as Annexure – 12.</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2021
xi.	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.	<p>Complied.</p> <p>The entry and exit gates of SEZ and port are provided with ample parking area (210838 m²) near the gate. The entry / exit complex is fully equipped with traffic control equipments and round the clock security is provided for seamless support. No public space is utilized for parking of the vehicle. Details of the same were submitted along with half yearly EC Compliance Report for the period Apr'18 to Sep'18.</p>
xii.	A report on the energy conservation measures conforming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & D Factors etc. and submitted to the Ministry along with six monthly monitoring report.	<p>Complied</p> <p>Energy audit of port user buildings (including the details about building materials and technology etc.) is being carried out on regular basis. Last energy audit was done during Oct-2016. Report of the same is submitted to Chief Electrical officer, Gandhinagar. The said report was submitted to MoEF&CC, RO, Bhopal as part of the compliance report for the period Apr – Sept, 2017.</p> <p>Some of the recommendations of these reports have already been implemented as follows.</p> <ul style="list-style-type: none"> • Saving in PAC by overhauling with repairing damage fall ceiling and window curtain • Saving with Improving Power Factor • APFC Panel has already been installed and average PF maintained during last 2 months comes to 0.987 • The system voltage at load end is being maintained 230V and therefore there is no need to install AVC
xiii.	Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be an integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines / rules of the regulatory	<p>Complied</p> <p>Energy Conservation through Installation of Motion Sensor (Occu switch) & AC Temp. controls in few of the buildings are provided.</p> <p>Measures for energy conservation are incorporated at design stage. Few of the buildings in MSTPL are designed as green building. Some features of the same are as below.</p> <ul style="list-style-type: none"> • Used fly ash based cement and bricks • Special types of glasses were used which gives maximum sunlight and less heat • VOC free paint used certified by CII (Certificate of Indian Industries) • Water flow reducer installed in the entire building

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Sr. No.	Conditions	Compliance Status as on 31.03.2021
	authority to avoid mercury contamination. Solar panels may be used to the extent possible.	<p>CFL / LED lighting are being used at various common areas of SEZ as well buildings and townships. Used CFL are collected and sent for recycling through authorized e-waste collection agency.</p> <p>APSEZ has installed & commissioned 8.8 MW roof top solar plants within APSEZ and Township premises. APSEZ has also installed and commissioned 12 MW wind mill and whatever electricity generated is being supplied to grid. Details of the same were submitted along with half yearly compliance report for the period Oct'18 to Mar'19.</p> <p>It may be noted that the individual industrial units will also be encouraged for taking various initiatives with respect to energy conservation (such as energy audit, installation of renewable energy sources, utilization of energy efficient fixtures etc.).</p>
xiv.	Adequate measures should be taken to prevent odour problems from solid waste processing plant and STP.	<p>Complied</p> <p>5R principals are adopted for sustainable waste management at APSEZ. Utmost care is being taken during the waste management and sewage /effluent treatment to ensure that there is no odour generation. Proper secondary treatment and disinfection is provided to the domestic sewage and treated sewage and then it is utilized for horticulture purpose. These measures ensure that odor problem is not created in the surrounding area. Furthermore, greenbelt on the periphery of the treatment plant as well as waste management sites help to prevent odour problems.</p>
xv.	The buildings should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	<p>Complied.</p> <p>Presently, all the buildings have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation. The same practice will be continued in future also.</p> <p>It may be noted that the individual industrial units will also be encouraged for consideration of these design parameters.</p>
xvi.	The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.	<p>Complied.</p> <p>Compliance report of all the environmental safeguards contained in the EIA report is attached as Annexure – 7.</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2021
xvii.	Adequate drinking water facility be provided.	<p>Complied.</p> <p>Drinking water facility at approx. 200 locations within APSEZ area is provided.</p>
xviii.	Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored after commissioning of the project.	<p>Complied.</p> <p>Environment Monitoring (air, noise, water, soil) is being carried out on regular basis in Port & SEZ areas through NABL accredited and MoEF&CC approved agency namely M/s. Pollucon Laboratories Pvt. Ltd.</p> <p>Please refer following condition nos. for further details.</p> <ul style="list-style-type: none"> v, viii & xi of General Conditions – Construction Phase iii of General Conditions – Operation Phase
xix.	Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for portion of the apartments should be provided.	<p>Complied.</p> <p>APSEZ has installed & commissioned 8.8 MW roof top solar plants within APSEZ and Township premises. APSEZ has also installed and commissioned 12 MW wind mill and electricity generated from it is being supplied to grid.</p> <p>Please refer condition no. xiii of the General Conditions – Operation Phase for further details.</p>
xx.	Ozone depleting substance (Regulation & Control) Rules should be followed while designing the air conditioning system of the project.	<p>Complied.</p> <p>APSEZ is not procuring air conditioning systems which use ozone depleting gases. All the HVAC systems are with Ozone friendly gases within APSEZ. All new air conditioning systems installed, if any, will be designed in line with Ozone depleting substance (Regulation & Control) Rules.</p> <p>It may be noted that the individual industrial units will also be encouraged to follow Ozone depleting substance (Regulation & Control) Rules while designing the air conditioning system of the project. The same will be implemented by individual unit as per project suitability.</p>
12	Officials from the Regional Office of MOEF, Bhopal who would be	<p>Complied.</p> <p>Full support is always extended to officers of regulatory</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2021
	<p>monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF should be forwarded to the CCF, Regional Office of MOEF, Bhopal.</p>	<p>authorities (including MoEF&CC and GPCB) visiting the project site. The documents as per their requirements are provided to them.</p> <p>The communication documents like application Form – 1, ToR received from MoEF&CC, Final EIA report, Public Hearing proceedings and recommendations of GCZMA are submitted to MoEF&CC, RO, Bhopal for necessary records.</p> <p>APSEZ was visited by RO, MoEF&CC Bhopal on 3rd May, 2018 for compliance verification. APSEZ provided all requisite information and documents required by the Regional Officer. During the said compliance verification visit, and as per the compliance certificate by Ro-MOEF&CC vide dated, 7th June 2018, there was no major non-compliance observed.</p> <p>Inline to the compliance certification process of Environment Clearance condition of Waterfront Development Plan, RO, MoEF&CC Bhopal had visited the site on 27th & 28th January, 2020 for compliance verification. APSEZ provided all requisite information and documents required by the Regional Officer MoEF&CC). During the said compliance verification visit and as per the compliance certification received, there was no major non-compliance observed.</p>
13	<p>In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.</p>	<p>Point noted and agreed.</p>
14	<p>The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provision of the Environmental (Protection) Act, 1986, to ensure effective implementation of the safeguard measures in a</p>	<p>Point noted and agreed.</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2021
	time bound and satisfactory manner.	
15	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective competent authorities.	<p>Not Applicable at present.</p> <p>The mentioned approvals are not applicable to APSEZ since we are the infrastructure support provider. However, the applicable approvals will be availed by the individual member industries prior to construction of work. The environment management committee will ensure strict adherence to the condition by the individual industries.</p>
16	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.	Point noted and agreed.
17	The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Clearance and copies of clearance letters are available with the Gujarat	<p>Complied</p> <p>APSEZ has advertised Environmental and CRZ Clearance in two local newspapers "The Indian Express" (in English language) and "Kutch Mitra" (in vernacular language) on 24.07.14 (within 10 days from the date of receipt of the clearance letter) and copy of the same was submitted vide letter dated 05.08.2014 to Ministry of Environment, Forests & Climate Change, Bhopal.</p>

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Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2021
	<p>Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhopal.</p>	
18	<p>Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.</p>	<p>Point noted and agreed.</p>
19	<p>Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.</p>	<p>Point noted and agreed.</p>
20	<p>A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall</p>	<p>Complied</p> <p>Copy of clearance letter was sent to concerned Panchayats, Zilla Parishad, Urban Local Body, Local NGOs and from whom suggestion/representation received. Details regarding the same were submitted to the MoEF & CC along with half yearly compliance report for the period from Apr – 2014 to Sep – 2014.</p> <p>Clearance letter is also put up on the website of the Adani ports https://www.adaniports.com/ports-downloads</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2021																					
	also be put on the website of the company by the proponent.																						
21	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	<p>Complied.</p> <p>Compliance report of EC conditions is uploaded regularly. Last compliance report including results of monitoring data for the period of Apr'20 to Sep'20 was submitted to Regional Office of MoEF&CC @ Bhopal, Zonal Office of CPCB @ Baroda, GPCB @ Gandhinagar & Gandhidham and Dept. of Forests & Env., Gandhinagar vide our letter dated 25.11.2020. Copy of the same is also available on our web site https://www.adaniports.com/ports-downloads. A soft copy of the same was also submitted through e-mail on 25.11.2020 to all the concern authorities. Please refer below for the details regarding past six compliance submissions.</p> <table border="1"> <thead> <tr> <th>Sr. No.</th><th>Compliance period</th><th>Date of submission</th></tr> </thead> <tbody> <tr> <td>1</td><td>Oct'17 to Mar'18</td><td>29.05.2018</td></tr> <tr> <td>2</td><td>Apr'18 to Sep'18</td><td>30.11.2018</td></tr> <tr> <td>3</td><td>Oct'18 to Mar'19</td><td>31.05.2019</td></tr> <tr> <td>4</td><td>Apr'19 to Sep'19</td><td>28.11.2019</td></tr> <tr> <td>5</td><td>Oct'19 to Mar'20</td><td>20.05.2020</td></tr> <tr> <td>6</td><td>Apr'20 to Sep'20</td><td>26.11.2020</td></tr> </tbody> </table>	Sr. No.	Compliance period	Date of submission	1	Oct'17 to Mar'18	29.05.2018	2	Apr'18 to Sep'18	30.11.2018	3	Oct'18 to Mar'19	31.05.2019	4	Apr'19 to Sep'19	28.11.2019	5	Oct'19 to Mar'20	20.05.2020	6	Apr'20 to Sep'20	26.11.2020
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6	Apr'20 to Sep'20	26.11.2020																					
22	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.																						
23	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environmental (Protection) Rules, 1986, as amended subsequently, shall also be put on the	<p>Complied.</p> <p>Environmental statement for each financial year is submitted to GPCB. The same for the FY ending 31.03.2020 in Form-V is submitted to GPCB vide our letter dated 29th August, 2020. Details of the same were submitted during last half yearly compliance report for the period Apr'20 to Sep'20. Copy of the same is also available on our web site https://www.adaniports.com/ports-downloads.</p>																					

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2021
	website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

ANNEXURE A

Compliance Report of CRZ Recommendation

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Note:

With respect to the project components attracting CRZ recommendation from GCZMA, following points shall be noted:

- GCZMA has recommended the CRZ proposal for Sea Water Intake, Outfall system and Pipeline.
- Construction with respect to Desalination Plant, sea water intake and outfall system has not been started yet.
- Existing units are having requisite environmental permissions (from state or central body, as the case may be) for discharging their wastewater, if any, to the Common Effluent Treatment Plant of MPSEZ Utilities Pvt. Ltd. having 2.5 MLD capacity (having a separate individual environmental clearance).
- Treated waste water is being utilized within the premises of CETP and / or SEZ for the gardening / horticulture activities.
- As soon as the need for discharging the effluent / reject form the desalination plant into sea will arise, constriction work for the intake and outfall will be started.

In view of the above mentioned facts, the compliance to the conditions stipulated in the CRZ recommendation will be submitted to all the competent authorities when the construction and operation activities are initiated for the project components attracting CRZ recommendation.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Annexure – B

Compliance Status of MoEF & CC Order dated 18.09.2015

Based on the report submitted by Sunita Narain committee, MoEF&CC issued a Show Cause Notice (SCN) to APSEZ vide their letter dated 30.09.2013. APSEZ replied to the SCN vide letter dated 14.10.2013. Further, an order (containing 10 directions) was issued by MoEF&CC vide their letter dated 18.09.2015. Compliance to these 10 directions is mentioned below.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Sr. No.	Condition	Compliance Status as on 31-03-2021
i	The proposal of extension of the validity of environmental clearance granted to the North Port vide letter dated 12.01.2009 will be considered separately at later stage.	<p>Complied</p> <p>After receipt of this order, so far APSEZ has not done any application to MoEF&CC for the proposed North port.</p>
ii	Bocha island, ecologically sensitive geomorphological features and areas in the island and creeks around the island will be declared as conservation zone action plan for its conservation must be prepared. M/s. APSEZ should provide necessary financial assistance for this purpose.	<p>Complied</p> <p>This reply covers condition no ii, iv and v.</p> <p>Based on the MoEF&CC directions,</p> <ol style="list-style-type: none"> 1. APSEZ, vide letter dtd. 19th October 2015 had requested GCZMA, for consideration of project for finalization of ToR for NCSCM. 2. Project was considered on 28th GCZMA meeting, scheduled on 22nd April 2016, where ToR was discussed and agreed, upon. 3. APSEZ, vide its letter dtd. 25th April 2016, submitted the proposal to GCZMA along with Scope of work, as submitted by NCSCM. 4. Service Order was issued to NCSCM vide SO dtd. 29th Aug 2016. Cost of the study as per the NCSCM proposal was 315.5 Lakh and 90% of payment has already paid to NCSCM. 5. NCSCM has carried out number of site surveys during the period, February 2017 – April 2018 as per the defined scope 6. The study report was submitted to GCZMA (with a copy to MoEF&CC vide letter dated 04.06.2018) for their consideration and recommendation if any. 7. A reminder letter was submitted to GCZMA vide letter dated 4th Jan 2019. <p>Details of above chronology were submitted along with half yearly compliance report for the period Apr'19 to Sep'19.</p>
iv	A comprehensive and integrated study and protection of creeks/ mangrove area including buffer zone, mapping of co-ordinates, running length, HTL, CRZ boundary, will be put in place. The plan will take note of all the conditions of approvals granted to all the project proponents in this area e.g. the reported case of disappearance of mangroves near navinal creek. The preservation of entire area to maintain the fragile ecological condition will be a part of the plan in relation to the creeks, mangrove conservation and conservation of bocha island up to baradimata and others.	
v	NCSCM will prepare the plan in consultation with NIOT, PP and GCZMA. In recognition of the fact that the existing	<p>The site survey carried out by NCSCM includes:</p> <ol style="list-style-type: none"> 1. Bathymetry survey of creeks 2. Topography survey of intertidal areas 3. Mangrove survey (health and area demarcation)

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Sr. No.	Condition	Compliance Status as on 31-03-2021
	<p>legal provisions under the E(P) Act 1986 do not provide for any authority to impose ERF by the government, the plan will be financed by the PP. the implementation will be carried out by GCZMA. The monitoring of the implementation will be carried by NCSCM.</p>	<p>4. Sampling of soil and water for analysis of physico-chemical and biological parameters 5. Tide and currents data collection (including residence time of tidal water) 6. Focus Group Discussions with the community in the close vicinity of the project area</p> <p>In addition to the site surveys, NCSCM has procured satellite images for analysis of mangrove cover.</p> <p>The data collected (through site surveys and analysis of satellite maps) was used as input for mathematical modelling. The modelling studies were carried out to understand the impacts of the development activities. Based on the outcome of the modelling studies the necessary conservation plan for protection of creeks and mangrove areas is prepared.</p> <p>Based on the final study report, outcome is summarized in to following points :</p> <ol style="list-style-type: none"> 1. There is no obstruction to any water stream (creeks / branches of creeks / rivers) 2. Presently, mangrove cover in and around APSEZ is over 2340 ha. There is substantial growth in mangrove cover to the tune of 246 ha (comparison between 2011 and 2016-17) 3. Mundra has undergone substantial development during this tenure. Hence it can be interpreted that the infrastructure development has not left any adverse impacts on ecology. <p>NCSCM study same was submitted to the GCZMA on 04.06.2018. Details of the same were submitted along with half yearly EC Compliance report for the period Apr'19 to Sep'19. The same was further submitted to GCZMA and MoEF&CC for their examination and recommendation vide (with a copy to MoEF&CC vide letter dated 04.06.2018 & reminder letter vide dated 4th Jan, 2019). Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and the recommendation for the same has been received vide email dtd 22nd Sept, 2020 with conditions. The copy of the same is attached as Annexure – 1.</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Sr. No.	Condition	Compliance Status as on 31-03-2021						
		As a part of GCZMA recommendations and NCSCM mangrove conservation action plan, APSEZ has undertaken following activities.						
		<table><tr><th>Sr. No.</th><th>Recommendations</th><th>Compliance</th></tr><tr><td>1.</td><td>Mangrove mapping and monitoring in and around APSEZ</td><td><ul style="list-style-type: none">APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island.As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction.NCSCM Report of the same is attached as Annexure – 2.The cost of the said study was INR 23.56 Lacs incurred by APSEZ.</td></tr></table>	Sr. No.	Recommendations	Compliance	1.	Mangrove mapping and monitoring in and around APSEZ	<ul style="list-style-type: none">APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island.As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction.NCSCM Report of the same is attached as Annexure – 2.The cost of the said study was INR 23.56 Lacs incurred by APSEZ.
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	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
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Sr. No.	Condition	Compliance Status as on 31-03-2021	
		2.	<p>Tidal observation in creeks in and around APSEZ</p> <ul style="list-style-type: none"> • APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM. • The observed tidal ranges indicate that the creeks experience normal tidal ranges, adequate for the growth of mangroves. • Report of the same is incorporated in NCSCM report attached as Annexure – 2. • The cost of the said activity was INR 1.0 Lacs.
		3.	<p>Removal of Algal and Prosopis growth from mangrove areas</p> <ul style="list-style-type: none"> • Algal and Prosopis growth monitoring was done in and around mangrove area and algal encrustation was found in some of the mangrove areas, which has been removed manually. • Report of the same is attached as Annexure –3. • The cost of the said activity was INR 1.2 Lacs.
		4.	<p>Awareness of mangroves importance in surrounding communities</p> <ul style="list-style-type: none"> • Adani Foundation – CSR Arm of Adani group has done awareness camps/activities created in the community regarding importance of mangroves during the year 2020-21. • Adani Foundation has also provided 6.7 lacs kg Dry Fodder and 11.6 lacs kg Green fodder in 20 villages of Mundra and Anjar Block to support the resource dependent villagers, to avoid their dependency on mangroves. The expenditure for fodder supporting activities was approx. 120.86 Lacs during last FY 2020-21. • Village Gauchar land development for the fodder cultivation to made fodder sustain village & Avail green fodder in scarcity phase. With the support of Gauchar Seva Samiti Grassland development in Siracha – 85 Acre & Zarpara – 25 Acre done which resulted in total production of 82 ton. • The brief details of the said activities are incorporated in

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Sr. No.	Condition	Compliance Status as on 31-03-2021	
			<p>attached CSR Report for the FY 2020-21 attached as Annexure – 4.</p> <ul style="list-style-type: none"> Other than this dedicated security guard with gate system deployed by APSEZ across the coastal area and no any unauthorized persons allowed within coastal as well as mangrove areas.
			<ul style="list-style-type: none"> The overall cost incurred by APSEZ is INR 146.62 Lacs as a part of mangrove conservation plan.
			<p>For demarcation of HTL and CRZ areas, NCSCM is under process of finalizing CZMP for this area. Once the maps are finalized, NCSCM will issue the final maps for the project area of APSEZ. The said maps will then be submitted to GCZMA and MoEF&CC by APSEZ.</p>
iii	<p>The violations of specific condition of all the ECs and CRZ clearances, if any, will be examined and proceeded with the provisions of EP Act, 1986 independently.</p>		<p>Complied</p> <p>Regional Officer, MoEF&CC, Bhopal visited APSEZ on 21-22 December'16 for monitoring the implementation of environmental safeguards.</p> <p>APSEZ was also visited by RO, MoEF&CC Bhopal on 3rd May, 2018 for compliance verification. APSEZ provided all requisite information and documents required by the Regional Officer. During the said compliance verification visit, and as per the compliance certificate by Ro-MOEF&CC vide dated, 07th June 2018, there was no non-compliance observed.</p> <p>Regional Office MoEF&CC, Bhopal , officer had visited the site on 3rd & 4th Sep, 2019 in compliance of the order of the Hon'ble HIGH COURT of Gujarat vide letter dated 22nd Aug. 2019 w.r.t. compliance verification of MoEF&CC order dated 18th Sep, 2015. APSEZ had provided all requisite information and documents required by the Officer.</p> <p>Inline to the compliance certification process of Environment Clearance condition of Waterfront Development Plan, RO, MoEF&CC Bhopal had visited the site on 27th & 28th January, 2020 for compliance verification. APSEZ provided all requisite information and documents required by the Regional Officer</p>

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Sr. No.	Condition	Compliance Status as on 31-03-2021
		MoEF&CC). During the said compliance verification visit and as per the compliance certification received, there was no major non-compliance observed.
vi	There will be no development in the area restricted by the High court of Gujarat. APSEZ shall abide by the outcome of the PIL 12 of 2011 and other relevant cases.	<p>Complied</p> <p>The order passed by Hon' ble high court in context of PIL 12 of 2011 vide dated 10th Nov 2011. Subject PIL has been disposed off by Hon'ble High Court vide their order dated 17.04.2015 and now there is no restriction on development in the subject area. The order reads as <i>"In view of the aforesaid discussion, we do not find any merit in this writ petition. This writ petition fails and is accordingly dismissed. No order as to cost."</i> Copy of the order was submitted along with EC Compliance report for the period Apr'18 to Sep'18.</p> <p>Considering the above status and in line to submission of compliance of all the directions under this order, this condition is closed.</p>
vii	APSEZ will submit specific action plan to protect the livelihood of fishermen along with budget.	<p>Complied.</p> <p>Adani Foundation (AF) is the CSR arm of the Adani Group actively working for upliftment of the communities in the surroundings of various project sites of Adani Group. AF has prepared a specific action plan to protect livelihood of fishermen at Mundra.</p> <p>Various initiatives, as stated below are discussed in detail in the report namely "Silent Transformation of Fisher folk at Mundra". Said report also includes the information related to the planned expenses to the tune of approx. 13.5 Cr. INR for various initiatives for the next five years (2016 – 2021) (Budget details provided in Page No. 68 of report). Copy of the same is already submitted to MoEF&CC vide our letter dated 10.09.2016.</p> <p>Till, Mar'21 approx. 9.42 Cr. INR, has already been invested. Further, details regarding the expenditure incurred against the commitment are attached as Annexure – 13. APSEZ couldn't spent expenditure for committed Fisher folk Projects in last five years due to corona outbreak in last year. However the remaining</p>

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Sr. No.	Condition	Compliance Status as on 31-03-2021
		<p>budget will be spent in upcoming years for committed fisher folk activities.</p> <p>APSEZ is carrying out various initiatives specific to the Fisherfolk community which includes:</p> <ul style="list-style-type: none"> Vidya Deep Yojana Developing school preparedness programme and empowering balwadis at fisherfolk settlement Under this scheme, 4 balwadis at different settlement has been constructed This programme include nutrition food, hygiene, awareness of health, cleanliness, discipline, regularity and development of basic age appropriate conception Vidya Sahay Yojana – Scholarship Support All basic education supportive facilities have been created to promote education in fisher folk community. Adani Vidya Mandir Children of the family with the income of salary less than 1.5 lac/annum are admitted School focusses on nutrition food, uniform and other services to the children for free. Fisherman Approach in SEZ After due consultative process, APSEZ has provided 7 fishermen access roads for to approach to the sea for fishing activity. Machhimar Arogya Yojana The Fisher folk communities are disposed to several water and air abided diseased due to exposure to unhygienic working conditions. Frequently Special Health care Camps are organized at Vasahat. Our Mobile health care unit van regularly visit fisher folk settlements Machhimar Kaushalya Vardhan Yojana Based on need assessment a number of trades were introduced through the Adani Skill Development Centre in Mundra, where in fisher folk youth could join and get a number of technical and non-technical training Machhimar Sadhan Sahay Yojana Fishing material support was provided by AF at Mundra as per the requests of Pagadiya fishermen. According to their needs, fishing nets, ropes, buoys, ice boxes, crates, weighing scales, anchors, solar lights etc., were provided Machhimar Awas Yojana Shelters, equipped with basic facilities of a toilet and pure drinking water have been constructed for living while fishing and to provide a healthy and hygienic residence. Machhimar Shudhh Jal Yojana This scheme of providing potable water has helped in reducing the drudgery of women and contributed largely towards general wellbeing Sughad Yojana

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Sr. No.	Condition	Compliance Status as on 31-03-2021				
		<p>Toilets for men and women are constructed at all three Vasahats. Infrastructure was accompanied with continuous awareness campaign on hygiene sanitation and use of toilets in particular.</p> <ul style="list-style-type: none">• Machhimar Akshay kiran Yojana Solar street lights at each settlement have been installed. For fish landing shed and school extension room have been fitted with solar inverter allowing late evening video shows for awareness and fish sorting work at ease.• Machhimar Suraksha Yojana Distance Alarm Transmission System – DATS’ project was introduced in order to promote safety of the fishermen. Forced to be at sea to earn their livelihood puts the lives of many fishermen at risk• Machhimar Ajivika Uparjan Yojana Mangrove plantation in the area as means of alternate income generating activity for the fisher folk community during the non-fishing months. During the non-fishing months, the fishermen under usual circumstances were benefited by other alternate economic activity to sustain them.• Bandar Svachhata Yojana Waste bins have been provided for proper collection and segregation of waste. <p>Further, APSEZ is actively working with local community around the project area and provides required support for their livelihood and other concerns through the CSR arm – Adani Foundation. Adani Foundation is working in main four persuasions as below.</p> <ul style="list-style-type: none">➤ Education➤ Community Health➤ Rural Infrastructure➤ Sustainability Livelihood <p>Brief information about activities in the main four persuasions is mentioned below. Other than this, Adani Foundation has also worked for fight against COVID – 19 pandemic situation during this compliance period. Activities carried out for the same are summarized as below.</p> <table><tr><th>Area</th><th>Activity</th></tr><tr><td>Fight Against COVID-19</td><td><ul style="list-style-type: none">• 24 villages of Mundra block Sanitized.• 5500 - Ration kit support to needy people (Specially Fisherman, daily wage workers, widows and senior citizen).</td></tr></table>	Area	Activity	Fight Against COVID-19	<ul style="list-style-type: none">• 24 villages of Mundra block Sanitized.• 5500 - Ration kit support to needy people (Specially Fisherman, daily wage workers, widows and senior citizen).
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Sr. No.	Condition	Compliance Status as on 31-03-2021																																				
		<ul style="list-style-type: none">• 1900 - Daily Food Facility (Breakfast, Lunch, Diner) for 1900 Labour per day• 105000 - Mask prepared by women SHG for Government officers / staff of SDM, ICDS, TDO, Custom, THO, Police Dept. etc.• 158 - Taken care of Senior citizens at old age home.• 35000 - 'AwazDe' a voice message campaign in local Kutchi language.• Total 3368 Covid patients got treatment from overall Ktuch with satisfaction in General hospital, Bhuj.• Awareness drives by SuPoshan Sanginies.• Mobile health care unit provides Primary treatment at door stap.• We have started Ayurvedic Kwadh Distribution at Various Public spot, Our Port Entry & Exit gate and APL, AKBTP, Tuna with spreading awareness to mitigate rapid transition to combat against Covid - 19. More than 6500 people had benefitted with Ukadoand Vitamin –C tablet from Mundra, Baroi, Shantivan & Samudra Township.																																				
	Community Health	<p>Community Health – Mundra</p> <table><tr><th colspan="4">Community Health All Project Patient Details</th></tr><tr><th>Project</th><th>Direct Beneficiary</th><th>In-Direct Beneficiary</th><th>No. of Villages</th></tr><tr><td>Medical Mobile van</td><td>16611</td><td>66476</td><td>33</td></tr><tr><td>Rural Clinic</td><td>15797</td><td>63192</td><td>11</td></tr><tr><td>Medical Supports</td><td>1008</td><td>5040</td><td>63</td></tr><tr><td>Dialysis Supports</td><td>474</td><td>2370</td><td>63</td></tr><tr><td>Senior citizen</td><td>5836</td><td>17508</td><td>63</td></tr><tr><td>Health camp</td><td>19461</td><td>58383</td><td>11</td></tr><tr><td>TOTAL</td><td>59187</td><td>212979</td><td></td></tr></table> <ul style="list-style-type: none">• The mobile health care unit cover 25 villages and 07 fishermen settlements. Around 90 types of general life saving medicines are available in these units.• Rural Dispensaries are established where there is a gap in the healthcare services. The Adani Foundation operates Rural Dispensaries in 7 villages of Mundra block, 03 villages of Anjar block and 1 clinics in Mandvi Block. Mobile dispensary and rural clinics provide health services with token charge of 10/- rupees per patient daily by a doctor and a volunteer.• During the year 2020-21, total 5836 transactions were done by 8711 card holders of 68 villages of Mundra Taluka. They received cash less medical services under Health Card to Senior Citizen project.• In the year of 2020-21 total 97 people had been benefitted by various kind of speciality camp and needy and screened patients are treated in Adani Hospital.	Community Health All Project Patient Details				Project	Direct Beneficiary	In-Direct Beneficiary	No. of Villages	Medical Mobile van	16611	66476	33	Rural Clinic	15797	63192	11	Medical Supports	1008	5040	63	Dialysis Supports	474	2370	63	Senior citizen	5836	17508	63	Health camp	19461	58383	11	TOTAL	59187	212979	
Community Health All Project Patient Details																																						
Project	Direct Beneficiary	In-Direct Beneficiary	No. of Villages																																			
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Rural Clinic	15797	63192	11																																			
Medical Supports	1008	5040	63																																			
Dialysis Supports	474	2370	63																																			
Senior citizen	5836	17508	63																																			
Health camp	19461	58383	11																																			
TOTAL	59187	212979																																				

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status as on 31-03-2021
		<ul style="list-style-type: none"> • Total 20959 patients benefited in year 2020-21 from 55 different villages in Adani Hospital, Mundra. • The TDO, THO, Flywing Foundation, Ayurved Dept. has support in UKADO and Vitamin-C tablets distribution activities. Total 18240 people had get benefits of UKADO and Vitamin-C tablets. <p>Community Health – Bhuj</p> <ul style="list-style-type: none"> • Adani Foundation Team has initiated coordination with GKGH hospital since 2014 and established a reception area for the smooth patient coordination and preparation for the social networking program. • GKGH Hospital is COVID Care Hospital since 22nd March 2020. Adani Foundation staff members supported in patient counselling, coordinating and supporting for dead body COVID care van. • Total 3368 Covid patients got treatment from overall Kutch with satisfaction in General hospital, Bhuj. • Total 809 dead bodies privileged till now to different locations in Kutch including Covid Patients through Dead body medical van. • Mahiti Setu is linkages between various Government Schemes and beneficiaries. Through Mahiti Setu sourcing of 2378 beneficiaries and linkages with more than 780 cards of MAA Yojna and Ayushman Yojna.
	Sustainable Livelihood – Fisher folk & Agriculture	<ul style="list-style-type: none"> • Average 75 KL of water was supplied to 676 households at 5 fisherman vasahat on a daily basis under Machhimar Shudhh Jal Yojana and other 4 fisherman vasahat has linkaged with Narmada water through GWIL and Mundra Gram Panachayat from which 355 households get benefited. • Beneficiaries of fisherman communities till date <ul style="list-style-type: none"> a) 444 Book Support b) 733 Vehicle transportation from Bandar to AVMB c) 86 Cycle Support d) 481 Scholarship Support e) 28015 Potable water provision f) 370 Youth Employment g) 2561 Fishing Net & Equipment Support h) 195 Linkages with Fisheries Scheme i) 3504 Ramaotsav Community Engagement j) 17 Fisherman Sea Weed Culture. k) 46878 Man-days Mangroves Plantation • Girl child is supported with 100% scholarship to girls & 80 % support to Male Students. Total 59 students were facilitated with scholarship current year. • 4830 Man-days work was provided over 236 Fishermen family during current year. • Avail easy and safe transportation service for the Fisher folk child of Various Vasahat to make them Regular and Synchronized with School atmosphere. Total 37 students from 6 to 10 standard are benefitted. • 07 Fishermen are supported for Net and Equipment

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status as on 31-03-2021	
			<p>10 Fishermen Linkage with Fisheries Department Scheme and Fishermen credit card for bankable loan.</p> <ul style="list-style-type: none"> • Total 70 Fishermen youth are selected and working in various company current year. • Under Gram Utthan Project, Adani Foundation is supporting home biogas to farmers to Uthhan Villages phase wise. Current year supported 117 home biogas in Dhrub, Zarpara and Navinal Villages. Till date 117 farmers are utilizing it with satisfaction and considerable outcome by saving avg. Rs. 23,400 for gas and fertilizer as well. • Dragon fruit is a tropical fruit that has become increasingly popular in recent years. Five Dragon fruit farm have been developed with pole and Wire fencing support for 2 acre land and 1000 dragon fruit plants each. Adani Foundation had given 40% contribution in this Project. Fruiting will start from June 2021. • 850 tissue culture plants have been distributed to 34 farmers. 25plants/Farmers. Tissue plant cost is INR 3000/per plant with 50% famer Contribution. • In 20 villages of Mundra and Anjar Block. 6.70 lacs kg Dry Fodder and 11.60 lacs kg Green fodder has been supported.
		Education	<ul style="list-style-type: none"> • In COVID19 Pandemic, when the schools were completely closed, education went on mobile platform and students are still dependent on mobile internet for their education. • Total 2098 students educated through virtual platform during year 2020-21. • During pandemic various capacity building program and competition organized virtually. <p>Impact of the Utthan Program:</p> <ul style="list-style-type: none"> • Beneficiary of Online classes - 17 Utthan Sahayaks, 17 Gov. Primary Schools, 2098 total students • Weekly Content of IT and Physical Education - 106 Gov. Pri. School & 35000+ students • Virtual Mothers meet - 500+ Mothers attended meeting on Google meet • Capacity Building Program - 70+ Webinar attended by Utthan Sahayak, 10 Seminar/ Workshop • Competition/Celebration - 248 Students took part virtually <p>Adani Vidya Mandir Bhadreswar Gujrat Board Standard 10th Examination Result is 82.60% (19 students have passed the examination out of 23). Adani Foundation will take all responsibility of further study of students with respect to their interest.</p>
		Rural Infrastructure & Environmental Sustainability	<p>Adani foundation designed and build various structure and provide service in the Health, Education, agriculture and sustainable livelihood area.</p> <p>WORK COMPLETED</p> <ul style="list-style-type: none"> • Approach Road Restoration at all Fisher folk

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status as on 31-03-2021	
			<p>vasahat.</p> <ul style="list-style-type: none"> • Garden Development at Primary School Rampar village • Shed Development at Shukhpurvah Mundra • Bund strengthening work at Zarpara <p><u>Bio Diversity Park – Mundra</u></p> <ul style="list-style-type: none"> • Adani Foundation, Mundra-Kutchh proposed a biodiversity park at 5 acres Nandi Sarovar area and approached to Sahjeevan, Bhuj for technical support for same. • Sahjeevan team visited this proposed site for development of greenbelt to support biodiversity and enhancement of overall ecological food web existing in and around the landscape in first phase. <p><u>Coastal Bio Diversity Park – Luni</u></p> <ul style="list-style-type: none"> • Adani Foundation at Mundra-Kachchh has initiated multi-species plantation of mangroves in Kachchh in association with GUIDE. During 2018-2019 (Phase-I) multi-species mangrove plantation was carried out in 10 ha, during Phase-II (2019-2020) it was 02 ha and during Phase III (2020-2021) it is 01 ha. • Sea Weed Culture - A pilot cultivation facility (5 KL tanks in 6 nos) for the farming of different economically important seaweeds in the tanks on the onshore has been established and commenced the cultivation trials with red sea weeds <i>Kappaphycus alvarezii</i>, <i>Gracilaria dura</i> and green sea weed <i>Ulva</i>. The initial trials have given very promising results and harvested 6-7 times the seeded material in a 40-45 days cultivation period.
		Skill Development	<ul style="list-style-type: none"> • Over the last few years, Adani Skill Development Center 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. Total 47 youth have been placed in various company and 37 youth are been self-employed. • During this year Total 606 people trained in various trainings to enhance socio economic development. • During COVID-19 pandemic, we have started virtually training on various trades like General Duty Assistant, Digital Literacy, GST with Tally, Basic Functional English etc. On Saksham Day we started E-learning training of Digital Literacy & Basic Functional English on free bases. • Till date we admitted 221 candidates in domain courses and 263 candidates in non-domain courses. Now we started offline training with following all Covid-19 related guidelines. • Arranged interview of DDU-GKY GDA students at Sterling Hospital –Gandhidham, GAIMS (Sodexo),

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status as on 31-03-2021	
		<div> <p>Chanakya College, Accord Hospital, Fire Academy. 39 students get placement in GAIMS (sodexo), Alilance Hospital, Shreeji Hospital, Bhuj Fire Academy, Divine Hospital etc.</p> <ul style="list-style-type: none"> Online mud work training has been organized by ASDC Mundra, after training 28 students became self-employed. Soft Skill Training: 330 Nos. Technical Training: 276 Nos. </div> <p>Please refer Annexure – 4 for full details of CSR activities carried out by Adani Foundation in the Mundra region. Budget for CSR Activity for the FY 2020-21 is to the tune of INR 1429.33 lakh. Out of which, Approx. INR 1117.45 lakh are spent during the year FY 2020-21.</p>	
viii	APSEZ will voluntarily return the grazing land, if any, in their possession.	<p>Point noted.</p> <p>All lands are acquired through proper procedure prescribed by State Government. However APSEZ has agreed for voluntarily giving 400 acres of land back to Zarpara village for the purpose of Gauchar. 400 acres of land has been identified in the presence and confirmation of Gram Panchayat. Necessary procedure has been initiated by APSEZ vide its letter dated 09th Aug 2012 with concerned revenue authority with respect to surrender of 400 acre gauchar land at village Zarpara. Same has been taken up by revenue department for necessary procedure of transfer and is under process. Details of the same were submitted along with half yearly compliance report for the period Apr'19 to Sep'19.</p>	
ix	A regional strategic impact assessment report with a special focus on Mundra region will also be prepared. The cost towards these studies will also be borne by PP.	<p>Complied</p> <p>This reply covers direction no ix and x.</p> <ol style="list-style-type: none"> APSEZ vide its letter dtd. 24th Feb 2014 has submitted draft ToR for preparation of CIA report to GCZMA for their approval. GCZMA vide its letter dtd. 19th Dec 2014, has approved ToR for CIA. Based on the ToR finalized by GCZMA (as per the instructions of MoEF&CC) for carrying out regional impact assessment study, APSEZ 	
x.	In the subject matter of thermal power plant, the proposed regional strategic Impact assessment analysis		

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status as on 31-03-2021
	<p>will take In to account salinity aspect along with Its potential environmental Impact to suggest future corrective actions as well as the guiding tool on extension and addition of the capacities.</p>	<p>awarded the work to NABET accredited consultant M/s. Cholamandalam MS Risk Services Ltd. to carry out the studies, vide SO dtd 10th Feb 2016 as stated in these directions.</p> <ol style="list-style-type: none"> 4. Primary baseline environmental monitoring data collection during March – June 2016 and published secondary data on various environmental attributes have been considered for the study. 5. The study has been concluded and the final report was submitted to GCZMA and MoEF&CC for their consideration vide our letter dated 30.04.2018. 6. Reminder letter has been submitted to GCZMA for their comments and consideration vide letter dated 4th Jan 2019. <p>Details of above chronology were submitted along with last half yearly compliance report for the period Apr'19 to Sep'19.</p> <p>Total cost of the study is approx. INR 1.3 cr. which is financed by APSEZ.</p> <p>The stated study was carried out in following 3 phases</p> <ul style="list-style-type: none"> • Baseline data collection and review of the past EIA reports and clearances issued to APSEZ. • Mathematical modelling and other technical studies for identification of potential impacts (for the year 2030) of the approved and existing project activities. • Development of macro level EMP for the phase wise implementation of actionable points. <p>As part of the study, following modelling exercises / technical studies have been carried out to study the impacts on all environmental attributes:</p> <ul style="list-style-type: none"> • Ambient air quality • Marine (Hydrodynamic, Thermal & Salinity dispersion, Sediment transport) • Noise level • Traffic assessment • Oil spill contingency plan

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status as on 31-03-2021
		<ul style="list-style-type: none"> • Water resource and salinity ingress • Land Use / Land Cover • Socioeconomic, Regional infrastructure • Waste management • Ecology, Bio diversity and Fisheries • Shoreline change assessment <p>Preparation of these reports require extensive use of modelling software and study of the available information / research reports to assess the impacts on individual attribute of environment. Based on the modelling outcomes and findings of the technical studies, a macro level environment management plan is prepared.</p> <p>Inline to the present stage of the project, APSEZ is already complying, as per Environment Management Plan and further recommendations, applicable to APSEZ as mentioned in the EMP, wrt Traffic Management Plan, Ground water quality management, Salinity ingress programme, Air and Noise quality Management, Surface and Marine water quality management, Ecology and Biodiversity Management, Solid & Hazardous waste management, Socio-economic Management and Shoreline Management, will be implemented in phase wise manner as per the progress of development within the boundary limits of APSEZ.</p> <p>The final CIA Report was prepared inline to the ToR by Chola MS and the same was submitted to the GCZMA on 30.04.2018. Details of the same were submitted along with half yearly EC Compliance report for the period Apr'18 to Sep'18. Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and after detailed discussion, authority has decided to constitute committee to discuss the details of the report further.</p> <p>Reminder Letter vide dated 07.09.2020 & 10.03.2021 submitted to the GCZMA, Gandhinagar for further directives to present the findings of the CIA report in detail. Copy of letter is attached as Annexure – 14.</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'20 To : Mar'21
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status as on 31-03-2021
		<p>However, APSEZ is already complying with the Environment Management Plan (applicable to APSEZ) suggested in Cumulative Impact Assessment report. The detailed compliance, applicable to APSEZ is attached as Annexure – 15.</p>

Annexure – 1

Chiragsing Rajput

From: Azharuddin Kazi
Sent: Tuesday, September 22, 2020 1:11 PM
To: Chiragsing Rajput
Subject: FW: Mangrove conservation plan

From: Shalin Shah
Sent: Tuesday, September 22, 2020 1:00 PM
To: Azharuddin Kazi <Azharuddin.Kazi@adani.com>
Cc: Haresh Bhatt <Haresh.Bhatt@adani.com>
Subject: FW: Mangrove conservation plan

For necessary record and compliance.

Shalin

From: S. M.Saiyad, IFS (Director, Env.) [<mailto:direnv@gujarat.gov.in>]
Sent: 22 September 2020 12:51
To: Shalin Shah
Cc: ashokchauhan1971@gmail.com; gaurangbhatt22
Subject: Mangrove conservation plan

CAUTION: This mail has originated from outside Adani. Please exercise caution with links and attachments.

Respected Sir,

As decided in 45th meeting of the Gujarat Coastal Zone Management Authority (GCZMA) was held on 04-10-2019 under chairmanship of Dr. Rajiv Kumar Gupta, IAS, Additional Chief Secretary, Forests & Environment Department and Chairman, GCZMA in the Committee Room, Forests and Environment Department, Gandhinagar .

The Authority has approved Adani Port and SEZ Ltd. mangrove conservation plan with following conditions:

1. The APSEZL shall carry out annual compliance monitoring of the mangrove conservation area.
2. The APSEZL shall explore the possibility for taking necessary adequate measures to reduce the erosion near Bocha island.
3. The approval of mangrove conservation plan shall not be considered as any permission under CRZ Notification for dredging activity.
4. There should not be blockage of any drainage line and free flow of water is to be maintained, as flushing of mangrove areas is very essential.
5. The APSEZL shall carry out mangrove monitoring every two years and submit the data to Forest Department/GCZMA and MOEF&CC, GOI

You are directed to comply the above mentioned conditions.

Thanking You,

With regards,

S. M. Saiyad, IFS

Director (Environment) & Member Secretary

Gujarat Coastal Zone Management Authority

Forest & Environment Department

Sachivalaya, Gandhinagar

Tel: 079-23252660

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Annexure – 2

**Report on Comprehensive and Integrated plan for
preservation and conservation of mangroves and associated
creeks in and around the Adani Ports and Special Economic
Zone Ltd., Mundra, Gujarat**



Submitted to

**M/s Adani Ports and Special Economic Zone Ltd
Mundra**

Prepared by

**National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
Chennai**

March, 2021

Progress report on Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island

1. Introduction

The northern Gulf of Kachchh in the western coast of India has extensive formation of mangrove. Ministry of Environment, Forest and Climate Change have accorded Environmental Clearance (EC) vide Letter No. F.No.10-138/2008-IA.III dt. 15th July, 2014 & 12th February, 2020 to M/s Adani Ports and Special Economic Zone Ltd (APSEZ), to set up a multi-product SEZ at Mundra, Kachchh, Gujarat. The project involves development of SEZ in a notified SEZ area of 8481.2784 ha.

While according Environmental Clearance (EC) to the project, the MoEF&CC have stipulated General and Special conditions in their Environment Clearance. Further inline to the MoEF&CC final order, vide F.No.10-47/2008-IA.III dtd 18th Sept. 2015 which also contained special conditions, two of which (sr. no iv and v of the order) are as follows:

(iv) A Comprehensive and integrated conservation plan including detailed bathymetry study and protection of creeks/mangrove area including buffer zone, mapping of co-ordinates, running length, HTL, CRZ boundary will be put in place. The plan will take note of all the conditions of approvals granted to all the project proponents in this area, e.g., the reported case of disappearance of mangroves near Navinal creek. The preservation of entire area to maintain the fragile ecological condition will be a part of the plan in relation to the creeks, mangrove conservation and conservation of Bocha Island up to Baradimata and others.

(v) NCSCM will prepare the plan in consultation with NIOT, PP and GCZMA. In recognition of the fact that the existing legal provisions under the E(P) Act 1986 do not provide for any authority to impose ERF by the Government, the plan will be financed by the PP. The implementation will be carried out by GCZMA. The monitoring of the implementation will be carried by NCSCM.

2. Compliance to the EC conditions

Accordingly, Adani Ports and Special Economic Zone Limited (APSEZ) had requested the National Centre for Sustainable Coastal Management (NCSCM) for preparation of Comprehensive and Integrated plan for preservation and conservation of mangroves and associated creeks. The components of plan are analysis of mangrove health by comparing the coverage between 2011 and 2016, bathymetry of creeks, socio-economics of villages adjoining creeks of APSEZ. One of the key recommendations is monitoring of coverage of mangrove in the late 2019 and comparing its extent of distribution with the data reported

in 2016-17. As per reported in the Conservation plan there has been overall increase in mangrove area by 246 ha in 2016-17 in the creeks in and around APSEZ compared to 2011 indicating existence of near healthy conditions for growth of the mangroves. It was recommended that the trend of mangrove cover needs to be studied in Jan/March 2020 using satellite images of late 2019 and if the trend continues, only monitoring is needed. The Conservation plan was submitted to the Gujarat Coastal Zone Management Authority and in its meeting held in October, 2019, then plan was approved as per their email dt 22nd Sept 2020. The major recommendation relating to mangroves that were specified in the conservation plan are as follows:

2.1. There has been overall increase in mangrove area by 246 ha in 2016-17 in the creeks in and around APSEZ compared to 2011 indicating existence of near healthy conditions for growth of the mangroves. No action is needed at present except at Navinal creek, Bocha island and off Bocha creek. The trend of mangrove cover needs to be studied in Jan/March 2020 using satellite images of late 2019 and if the trend continues, only monitoring needed. The tidal range in the mangroves is also to be observed annually using tide poles to ensure that the flow of tidal water remains same as observed in April 2017 during the field study.

If degradation of mangroves to the extent of 10% due to inadequate seawater is observed in Kotdi and Baradimata creeks, initially the mouth areas need to be made free from silt. If tidal flow does not improve after one year and if the extended banks are noticed which might be due to siltation, silt need to be removed on the banks where there are no mangrove roots. If the tidal conditions still do not improve after one year, the interior parts of the creeks need to be dredged in a phased manner from 0.5 m to 1 m. Otherwise, the monitoring of mangrove needs to be carried out once in two years and whenever, degradation is noticed the above strategy needs to be implemented.

2.2. In the Navinal creek, if degradation of mangroves or reduction of mangrove cover by even 10% is noticed in 2020 due to decrease in tide water flow, dredging of Navinal creek from beyond port operation areas up to 4.5 km to increase the depth by 1 m in a phased manner must be taken up to facilitate increased tidal water flow into the mangrove areas of Bocha island. Otherwise, the monitoring of mangrove needs to be carried out once in two years and whenever, degradation is noticed the above strategy needs to be implemented.

The authority suggested to undertake compliance monitoring of the mangrove conservation area to comply the above recommendations and study the health of mangroves in creeks. Accordingly, APSEZ has requested NCSCM to monitor the mangrove coverage using the satellite images of 2019 and also to check the extent of shoreline changes in the eroding areas of Bocha Island which led to loss of about 5.33 ha of dense mangroves between 2011 and 2016-17.

3. Scope of work

In order to comply with above recommendations relating to assessment of health of mangroves and also to assess the coastal erosion following activities are proposed:

- i. Procurement of high-resolution satellite images of late 2019/Jan 2020 and prepare GIS based maps on distribution of mangroves in creeks of APSEZ. Field validation of mangrove data collected (subject to COVID-19 conditions prevailing in the country)
- ii. Comparative analysis on variation of mangrove coverage between 2016/17 and late 2019 using GIS techniques and drawl of inference on health of mangroves.
- iii. Determination of shoreline changes at the reported eroding shoreline of Bocha island by comparing shoreline of 2016/17 with 2019.

4. Proposed Tasks

- i. In the Conservation plan prepared for creeks and mangroves of APSEZ, it was observed that there has been overall increase in mangrove area by 246 ha in 2016-17 in the creeks in and around APSEZ compared to 2011 indicating existence of near healthy conditions for growth of the mangroves. The extent of mangrove cover will be mapped in the creeks Kotdi (I & II), Baradimatha (I & II), Navinal, Bocha and Khari creeks using High resolution satellite images of late 2019. These creeks have been indicated in Fig.1.

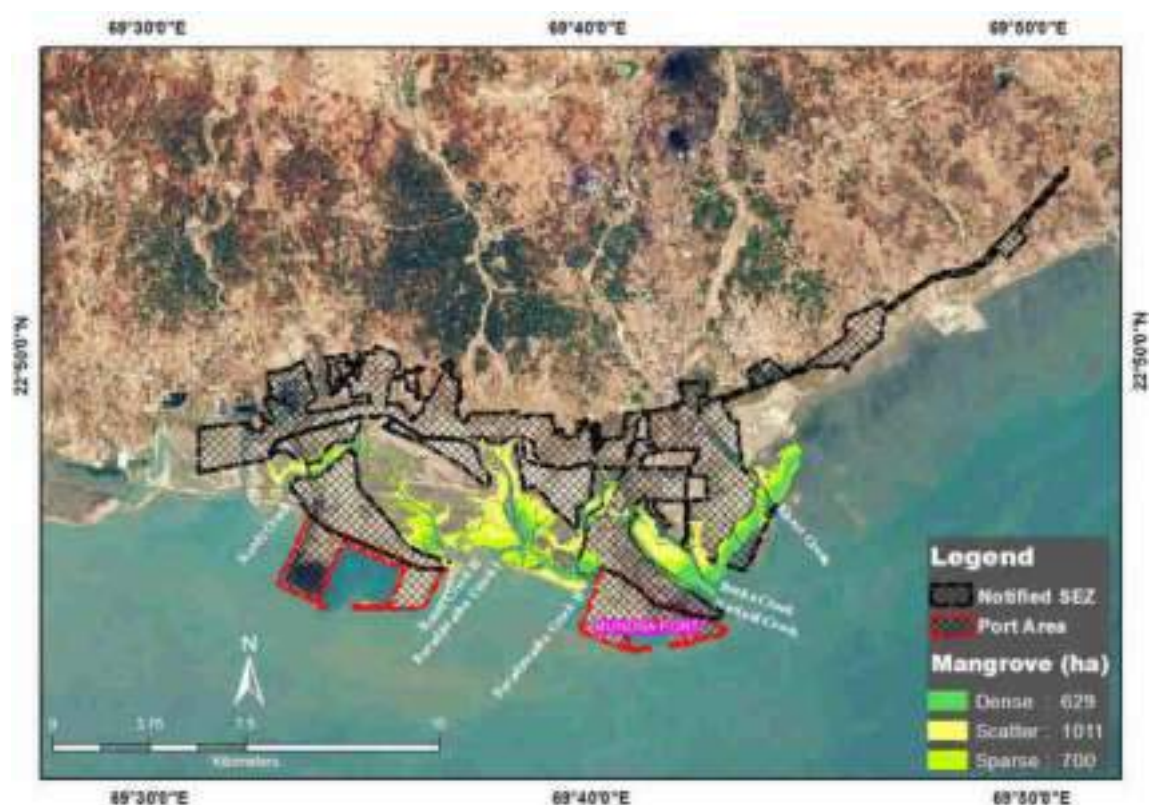


Fig.1. APSEZ area, creeks and mangrove formation along the creeks

- ii. Change detection analysis using GIS tool will be carried out for Bocha Island to determine and mangroves will be categorized as scattered, sparse and dense. *{While categorizing mangroves in terms of their density, they have been classified as dense (mangrove plants both tall and stunted with gap between one tree and another being 2 m and less), sparse (shrubs with distance between patches being more than 2 m but less than 5 m) and scattered (shrubs with distance between patches being more than 5 m)}*. The changes from one category to other will be indicated as quantitative data along with locations in the GIS map.
- iii. Determination of shoreline changes in eroding areas of Bocha Island by comparing the shoreline of March, 2017 with shoreline as found in the satellite images of Sept. 2019 to understand the extent of increase/decrease of erosion and corroborating with underlying oceanographic parameters that cause erosion.

5. Tasks Completed

5.1. Tidal observations in the creeks in and around APSEZ

The technical personnel of APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM. A Google earth image showing the locations where tidal observations made in December 2020 is placed in Fig.2. These observations made in a 24 hrs tide cycle using tide poles in December, 2020.

The observed tide levels are given in Annex 1. A comparison of tide levels recorded between April, 2017 and December, 2020 is given in Table 1.

Table 1. Comparison of tide levels between April, 2017 and December, 2020 in creeks in and around APSEZ

Creek	2017 (values in meters)			2020 (values in meters)		
	Max	Min	Range	Max	Min	Range
Kotdi I L 1	5.63	3.16	2.47	5.84	2.94	2.90
Kotdi I L 2	5.45	2.17	3.28	5.81	2.81	3.00
Kotdi II	5.60	2.98	2.62	6.08	1.38	4.70
Baradimata I L 1	4.83	3.59	1.24	6.08	2.88	3.20
Baradimata II L 1	5.55	4.01	1.54	5.90	0.50	5.40
Baradimata II L 2	4.89	0.53	4.36	6.11	3.41	2.70
Navinal L 1	5.21	3.42	1.79	6.01	3.41	2.60
Navinal L 2	5.20	3.76	1.44	6.18	1.98	4.20
Navinal L 3	5.18	3.54	1.64	6.10	1.14	4.96
Bocha L 1	5.81	2.99	2.82	6.16	1.06	5.10
Bocha L 2	5.75	3.87	1.88	6.03	2.53	3.50
Bocha L 3	5.75	3.44	2.31	5.88	1.48	4.40
Khari L 1	6.15	4.07	2.08	6.01	1.71	4.30



Figure 2: Google image showing locations of tide observations

As the tides primarily follow lunar cycle of the year, there are natural variations in tidal ranges among months in a year. An analysis tide values at selected locations (indicated as L in table 1) reveals existence of higher tidal ranges at most of the locations in 2020 compared to the year 2017. Though such variations are attributed year to year variation in high tide levels in a 19 year lunch cycle, it also indicates prevalence of good tidal ranges in the observed locations revealing normal flow of tides around the observed locations. A comparison of mangrove health with tidal observations through a general inference of availability of tidal water all along the creeks leading to presence of mangroves in categories mostly to the level of 2017, a few locational changes in mangrove categories were observed viz., from dense to sparse and scatter and vice versa. These changes have been described in the respective sections below.

5.2. Procurement of High Resolution satellite imagery

Enquiries were made with National Remote Sensing Centre (NRSC) who are the only authorized distributor of satellite images in India, for availability of high resolution satellite imagery especially multi-spectral images similar to the images used to study the mangrove distribution i.e., 0.6m PAN and 2.0 m multispectral data from World view 2 foreign satellite. NRSC has intimated that a procurement procedure for e-purchase of images acquired by foreign satellite is being evolved and it would take considerable time to finalise the procedure. Further, NRSC also informed that no Indian satellite has facility for capturing 2.5m multi-spectral image data. As there are uncertainties in the acquisition of the images from World view 2 satellites during the period of progress report preparation, an effort has been made to use freely available open source Google earth images which is a merged product of 0.65 PAN and 2.5m Multi-spectral data. It has limitations as it is not a digital data and the mangroves details are obtained from Google earth images by directly digitizing from the computer screen. There could be possible error of less than 10 % in mangrove categorization (as dense, sparse and scatter) and also extent of total coverage in terms of hectare. The methodology adopted to map the distribution of mangroves is similar to the method mentioned in the Conservation plan report except the source of satellite image. The present report on mangrove distribution is based on Google images of March, 2017 and Sep 2019, as cloud free images are available only for these dates.

5.3. Monitoring on distribution of mangroves in creeks in and around APSEZ to assess their health conditions

5.3.1. Overall assessment

The Kotdi, Baradimata, Navinal, Bocha and Khari creeks experience high tidal ranges up to 6m and with average tidal range of 2 to 4.5m which varies annually. The creeks have mangrove formation due to muddy substratum and the mangroves are tide fed and tidal flow in to the mangroves occurs only during high tide. This makes the mangroves as inter-tidal one and any change of tidal conditions in the creeks affect the growth and distribution of mangroves.

Distribution of mangroves in Kotdi, Baradimata, Navinal, Bocha and Khari creeks and also in Bocha island was studied using Google earth images (2017 March and 2019 Sep). The data obtained for 2017 i.e., 2398 ha was compared with data reported for 2016 (Dec) - 2017 (Jan & Feb) i.e., 2340 ha in the Conservation plan submitted earlier. The Google earth showed a marginal difference of + 58 ha (compared to earlier 2016-17 data) which shows 2.4% higher and the difference can be considered as insignificant.

Further for both the start year (2017 March) and the end year (Sep.2019) Google earth image was used as a source and therefore, the results will be quite acceptable for assessment. With regard to overall health of mangroves in the creeks in and around APSEZ, it was found that there was an increase of mangrove cover between March 2017 and Sep 2019 to an extent of 256 ha which is about 10.7% increase in mangroves. It reveals that the mangrove and the tidal system in the creeks remained undisturbed over this period (Table 1 and Figs.1 to 3). Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction (Table 2 and Figs 3 to 5).

Table 2: Data on distribution of various categories of mangroves in the creeks in and around APSEZ in 2017 and 2019

Category	Area in Hectares	
	2017	2019
Dense	623	701
Sparse	741	925
Scatter	1034	1028
Total	2398	2654

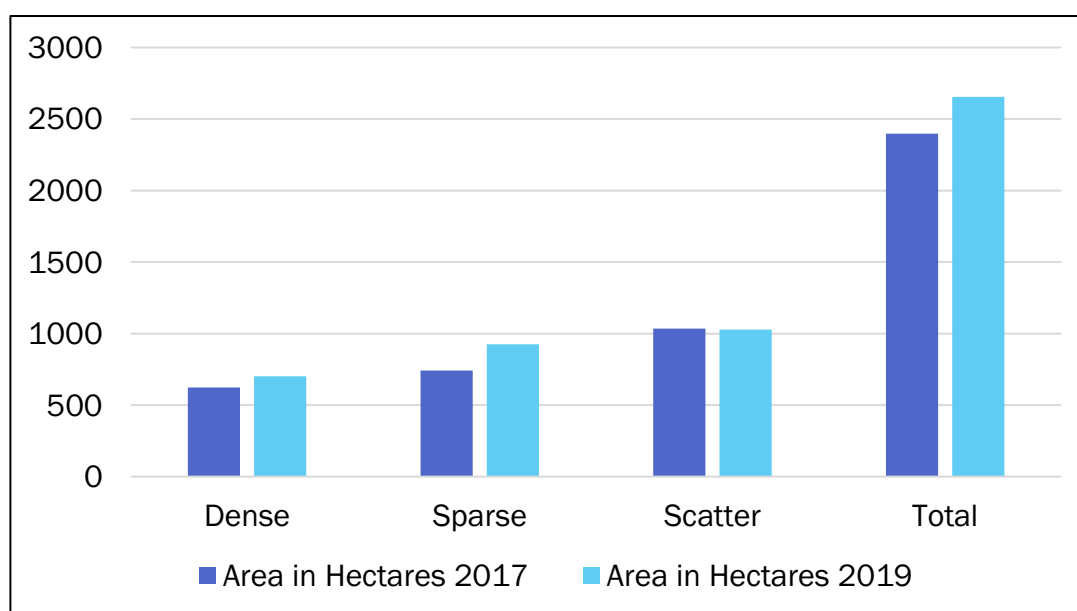


Figure 3: Comparison of various categories of mangroves in creeks of APSEZ between 2017 and 2019



Figure.4. Google earth image showing GIS output on distribution of various categories of mangroves in March 2017



Figure 5: Google earth image showing GIS output on distribution of various categories of mangroves in March 2019

5.3.2. Creek wise assessment

a. Kotdi creek

The Kotdi creek with two mouths, named as Kotdi I on the western end of South Port of Adani and Kotdi II east of Kotdi I experience tidal flow up to 4.5 km in Kotdi I and up to 7.4 km in Kotdi II during high tide periods. The tidal range observed in 2020 is 2.9 to 4.7m. During the period of study, the creek showed significant growth of all categories of mangroves and the overall increase in Sep 2019 compared to March, 2017 was to the extent of 106.86 ha which is about 25.9%. It is also worth noting that dense mangroves have increased by 106.5% (Table 3 and Fig.6 to 8). While the sparse category marginally decreased to the extent of 20.8 ha, the scatter ones increased by 77.3 ha. (Table 3 Figs 6 to 8). The results reveal good tidal flow in the creeks of Kotdi during the period of investigation and the mangroves are generally in good health condition. Marginal decrease of sparse category and increase of area of scatter are mainly due to transitional changes which are natural in mangrove distribution.

Table 3. Distribution of mangroves in Kotdi creek system in 2017 and 2019

Category	Area in Hectares	
	2017	2019
Dense	47.25	97.59
Sparse	188.50	167.70
Scatter	177.20	254.52
Total	412.95	519.81

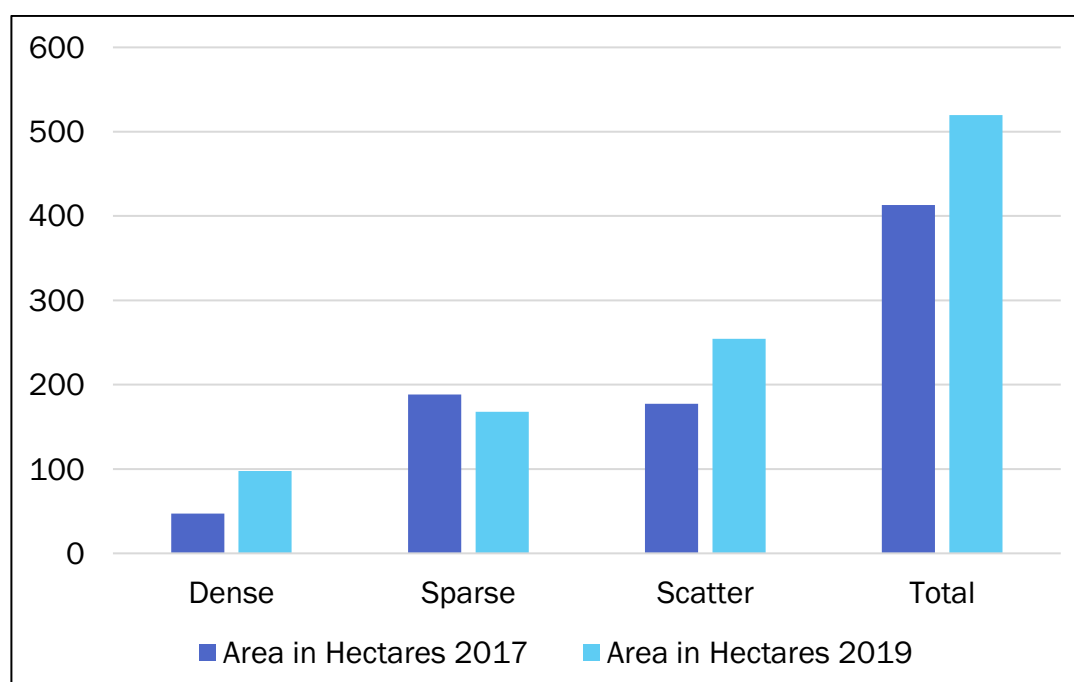


Figure 6: Comparison of mangrove distribution between 2017 and 2019 in Kotdi creek system.



Figure 7: Distribution of mangroves in 2017 in Kotdi creek system.



Figure 8. Distribution of mangroves in 2019 in Kotdi creek system.

b. Baradimata Creek

The creek has been one of the well tide influenced creeks and as of 2020, the creek experienced a tidal range of 2.7 to 5m and the high tide penetrates approximately up to 6.15 km from its mouth. The creek too remains uninfluenced by human interventions except navigation by fishing community from the nearby villages. The health of the mangroves was assessed between 2017 and 2019 and the results are shown in Table 4 and Figs.9 to 11. It has showed overall improvement in mangrove coverage to the extent of 129.47 ha (11.3% increase) mostly with formation of new mangroves in the form of sparse mangroves with minor inter-conversion in categories of sparse to dense (Table 4 and Figs.9 to 11).

Table 4: Data on various categories of mangroves in the years 2017 and 2019 in Baradimatha creek system

Category	Area in Hectares	
	2017	2019
Dense	218.90	241.41
Sparse	328.83	337
Scatter	590.60	689.01
Total	1138.33	1267.80

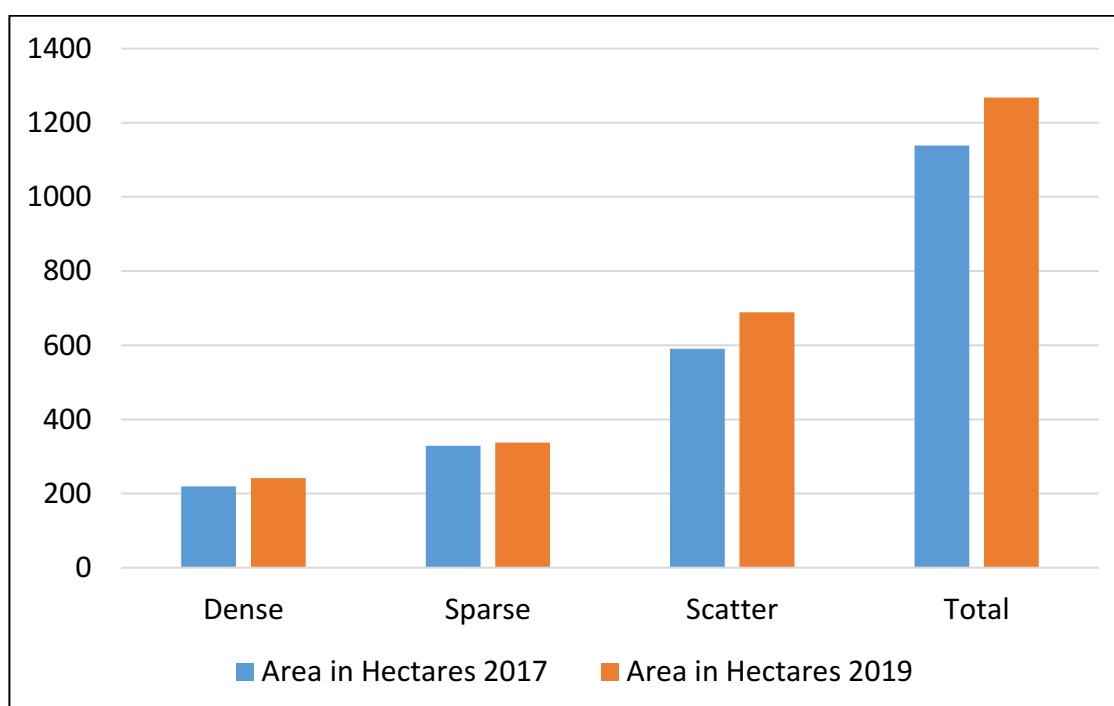


Figure 9: Comparative data on various categories of mangroves in 2017 and 2019 at Baradimata creek.



Figure 10: Distribution of mangroves at Baradimata creek in 2017 shown in Google earth image



Figure 11: Distribution of mangroves at Baradimata creek in 2019 shown in Google earth image

As the data on mangrove distribution has shown an increased trend between the years especially improvement to higher categories (i.e., from scattered to sparse and further to dense) and also formation of new mangroves, it could be inferred that the mangroves in the creek are in healthy conditions with normal tidal flow.

c. Navinal and Bocha creeks including Bocha island

The creek system is complex with Navinal creek situated abutting to Adani Port and the eastern Bocha creek connecting to Navinal creek in the north leading to formation of Bocha island which has substantial dense mangroves. The mouth of creeks has good tidal inflow especially in Navinal creek as its mouth forms entry to the Port. The Navinal creek becomes narrow towards north and flows eastward to connect with Bocha creek (Fig.1). The creeks have fair to good growth of mangroves on their bank with dense mangroves in the Bocha island and the Figs.12 to 14 show the distribution of mangroves in 2017 and 2019 respectively.

The data on distribution of various categories of mangroves have been shown in Table 5 and Fig.12. The mangroves of the creek system have almost remained at 2017 level with marginal increase of 11.43 ha which is an increase of 2.1%. At pre-pages the recommendation made in the conservation plan has been mentioned. Accordingly, if there has been a decrease in mangroves less than 10% to the 2017 level, then the tidal flow in the creeks needs to be studied to check reduction in tidal flow, as the tidal flow is the key parameters for survival and growth of mangroves. As the present data has shown an increase of 2.1% cover of mangroves in the Navinal-Bocha island and Bocha creek system, in general, overall mangrove health is normal with usual tidal flow.

Table 5: Data on distribution of mangroves in 2017 and 2019 in Navinal Bocha creek system

	Area in Hectares	
	2017	2019
Dense	212.90	212.6
Sparse	102.75	278.4
Scatter	230.44	66.2
Total	546.09	557.52

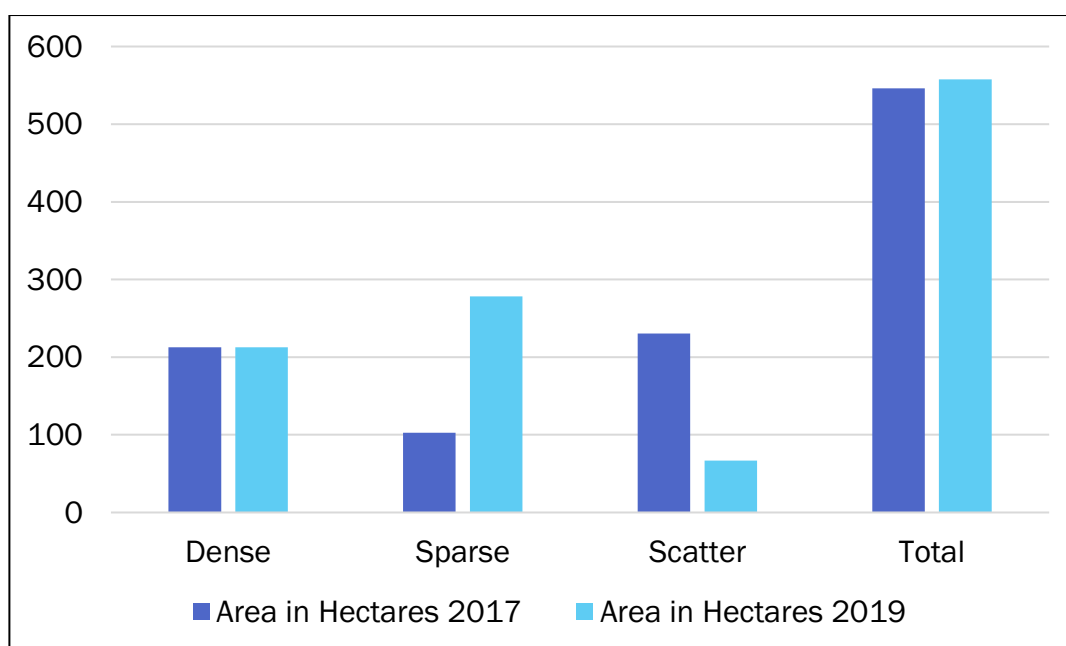


Figure 12: Comparison on distribution of mangroves between 2017 and 2019 in Navinal Bocha creek system

Though, the overall increase in mangrove in the Navinal-Bocha creek system shows prevalence of normal conditions, specific attention was drawn in the case of Navinal creek in the Conservation due to formation of sand spits. It was postulated that continued growth of sand spit across the creek might reduce tidal flow in future which may affect the growth of the mangroves. In this regard, it is pertinent to draw the following recommendations for mangroves in Navinal creek in the Conservation plan:

Sand/silt spits were observed on the banks of Navinal creek and some of them were extending close to Bocha island. If such spits continue to grow, they may obstruct tidal flow leading to reduced tidal water supply to the northern banks of Navinal creek and the Bocha island. Therefore, assessment of the health of mangroves should also be carried out along the Navinal creek in Jan/Mar 2020. If the health of the mangroves either remains at the current condition or improves, the situation should be monitored once in every two years using high resolution satellite images. If there are signs of degradation of mangroves due to decrease of flow of tidal waters in the interior parts of the Navinal creek, Bocha island that are fed by tidal waters of Navinal creek, then it would be necessary to deepen the Navinal creek to facilitate movement of tidal water”

As there was a specific recommendation on Navinal creek, comparison of mangrove categories between 2017 and 2019 was made using mangrove distribution depicted in Figs 13 and 14. It was observed that while the southern side of Navinal bank adjoining Adani port where tidal range is high (~5 m) the scattered mangroves of 2017 grew well to become dense. However, in the northern side, the dense mangroves at the landward side of creek bank, few patches of dense mangroves have turned to sparse and scatter. On analysis of tidal values in the deeper northern part of the creek, it was found that the location which is a junction of a branch of Bocha creek showed in a tidal range of 2.6m

(6.01 m during peak high tide and 3.4 m during peak low tide) in 2020 compared to 1.8m in 2017 at same location (measured in 2017 while preparing the Conservation plan) which indicates a good tidal flow in the creek. Conversion of mangrove from dense to sparse in Navinal from 2017 to 2019 despite such good tidal flow is not clear.

In order to understand the causes, it is necessary to measure tide at closer intervals (every 300m) in this mangrove change section of Navinal creek till the meeting point of Bocha creek during the next monitoring cycle. This may indicate locational change of tidal range and also influence of tide from Bocha creek at the meeting point.



Figure 13: Distribution of various categories of mangroves overlayed in Google earth image of Navinal and Bocha creek system for the year 2017



Figure 14: Distribution of various categories of mangroves overlaid in Google earth image of Navinal and Bocha creek system for the year 2019

The change analysis performed using GIS overlay techniques to understand inter-conversion among Dense, Sparse and Scattered indicates there is a net loss of dense mangroves to the extent of 2.83 ha which has mostly occurred at the tip of the Bocha island and also along the coast east of Bocha creek (Table 6 and Figs 15 and 16). Loss of dense mangroves around the tip of Bocha island to the extent of 5.33 ha between 2011 and 2016-17 was reported in the Conservation plan. From the present results, it is evident that the erosion has been continuing around the tip of the Bocha island resulting in the loss of dense mangroves.

Table 6: Data on inter-conversion of mangrove categories from 2017 to 2019

Category	Area in Hectares				
	Dense in 2019	Sparse in 2019	Scatter in 2019	Gain/Loss	Total 2017
Dense in 2017	206.06	1.94	2.06	2.83	212.90
Sparse in 2017	0.74	52.42	49.69	-0.10	102.75
Scatter in 2017	5.56	89.31	135.59	-0.01	230.44
Gain/Loss	0.19	134.73	-120.72		
Total 2019	212.55	278.40	66.62		



Figure 15: Result of change analysis from 2017 to 2019 on categories of mangroves in Navinal-Bocha creek system overlaid on Google earth image

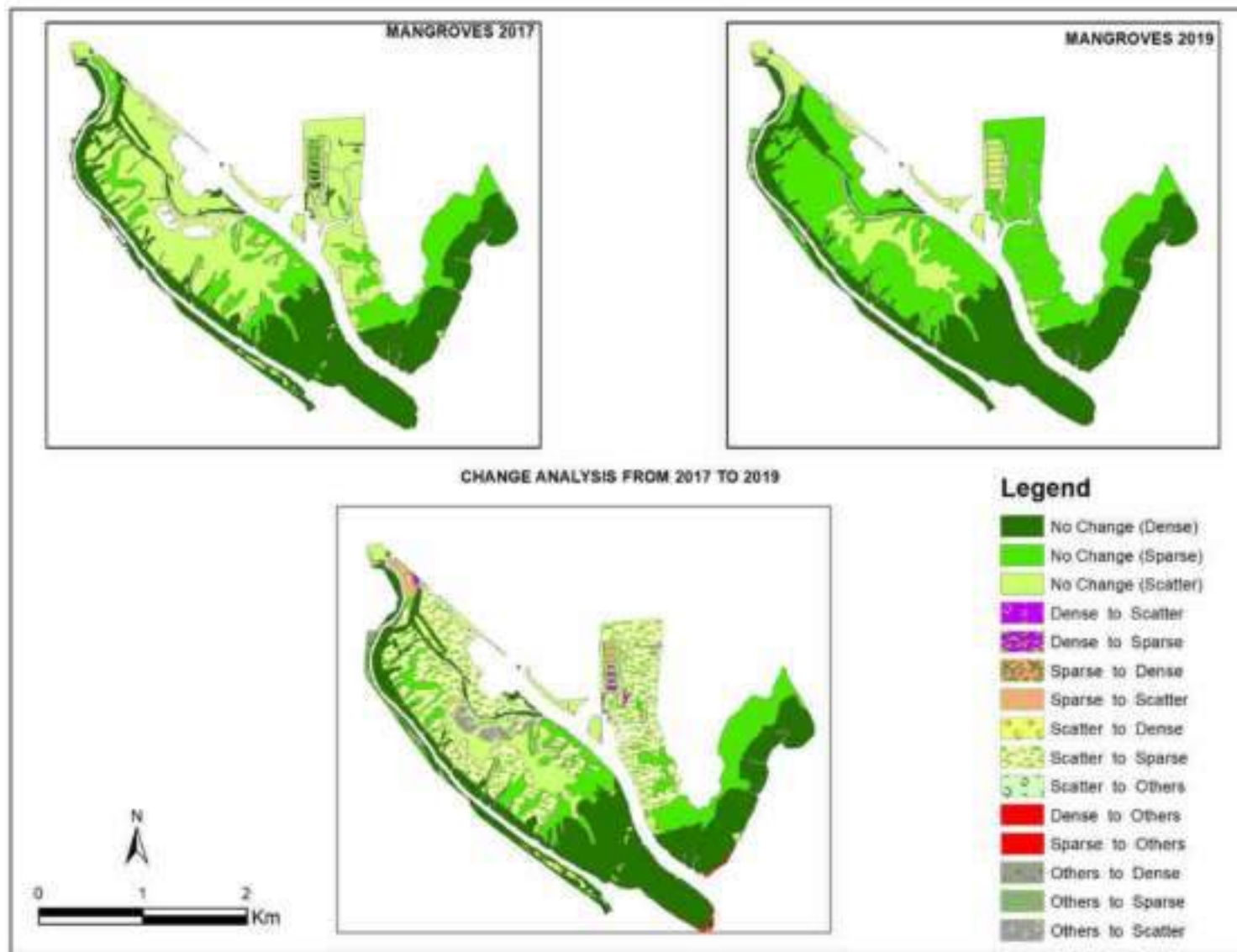


Figure 16: Mangrove layers of 2017 and 2019 and the overlaid results

Khari creek

The creek experiences normal tidal flow with settlements located in the northern part of the creek (Junabunder village). Distribution of mangroves between March, 2017 and Sep 2019 has been studied and the data is given in Table.7 and Fig.17. and categories of mangroves are indicated in Figs18 & 19. The data indicates there is a marginal increase of mangroves to the extent of 7.87 ha which 2.62% compared to 2017 level. The minor decrease in scatter category is due to its conversion to both dense and sparse. This is a normal process of changes in mangroves due to annual variation in tidal regimes. Since there has been an increase of 2.62% of mangroves compared to 2017 level, the mangroves are in normal conditions and the decrease in scatter may be due to conversion to higher category namely sparse.

Table 7: Distribution of various categories of mangroves in 2017 and 2019 in Khari creek

Category	Area in Hectares	
	2017	2019
Dense	143.71	149.46
Sparse	120.83	141.28
Scatter	36.14	17.80
Total	300.68	308.55

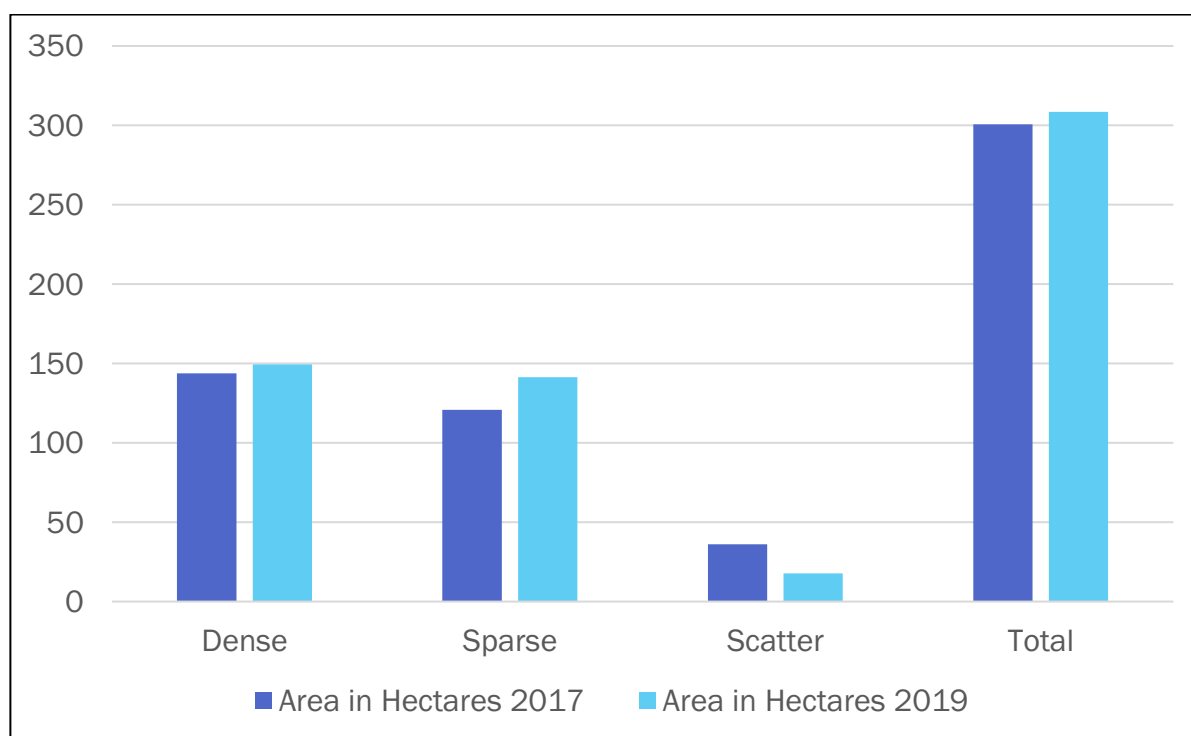


Figure 17: Comparison of mangroves in 2017 and 2019 in Khari creek



Figure 18: GIS based map showing distribution of mangroves in March,2017in Khari creek.



Figure 19: GIS based map showing distribution of mangroves in Sep.2019 in Khari creek

6. Erosion at Bocha Island

In the Conservation plan prepared in 2017, it was indicated that erosion is prevalent around the Bocha island leading loss of about 30m of coastline along with 5.33 ha of dense mangroves between 2011 and 2017 (Feb). A solution with alternative was also suggested in the Conservation plan to control the erosion. One of the main reasons attributed for the cause of erosion occurrence of strong tidal currents along the Bocha creek side of the island. Prevalence of high current was due to shallowness of the mouth of Bocha creek, which acts as barrier and deflects the tidal current to the island shore.

However, in order to check whether any natural process has nullified erosion around the Bocha island, attempt has been made to study the erosion rate from 2017 March and 2020 March using the Google image. The results have been shown in Fig.19 which indicates continued erosion at the site rate of 10 to 16 m/yr with loss of about 2 ha of dense mangroves. This re-emphasizes the need to implement the solution of deepening the submerged portion of the mouth of Bocha island to dampen the current.

The Conservation plan had already suggested two solutions to mitigate the erosion, which will be carried out after taking approvals from the concerned authorities. APSEZ has already initiated the process of obtaining required approvals to execute the first solution of deepening the mouth of Bocha creek and same will be implemented and monitored for erosion to decide the future course of actions required, if any.

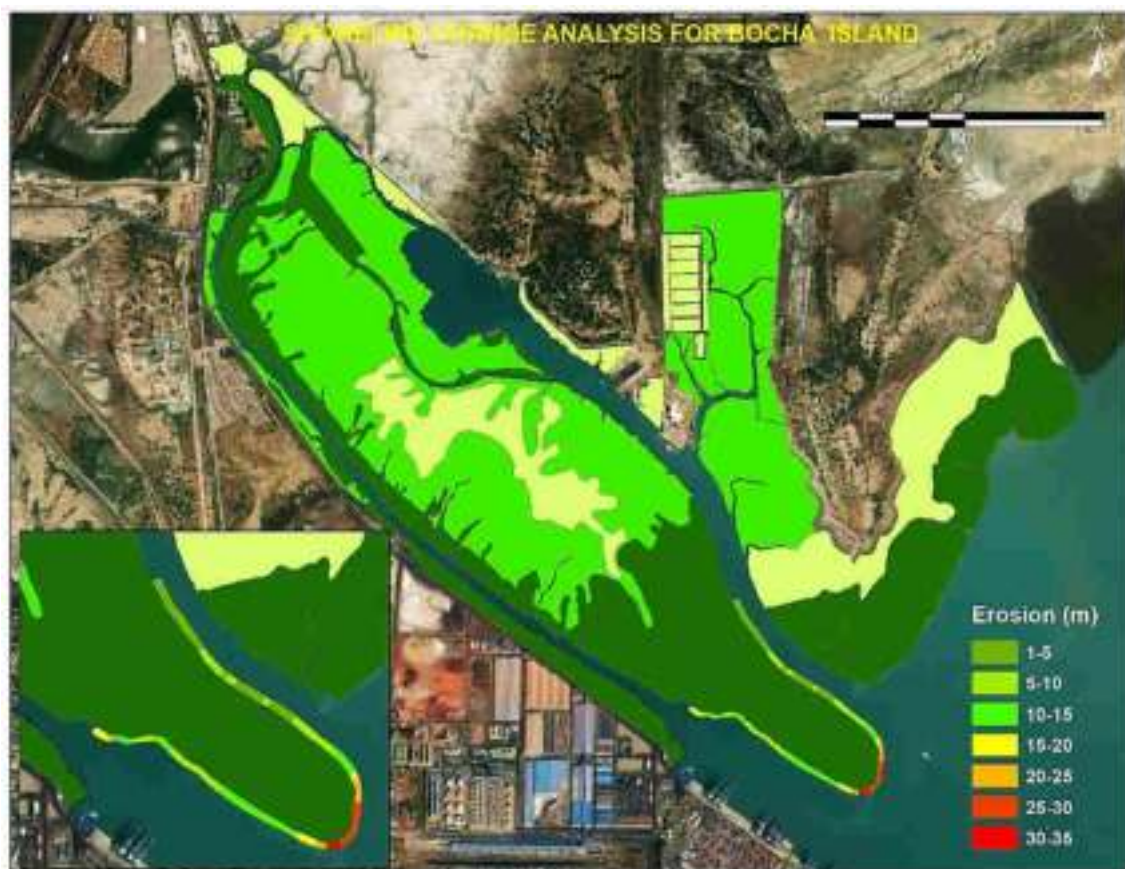


Figure 19: Rate of erosion around the mouth of Bocha island between 2017 and 2019

7. Summary

Based on the results obtained by comparing distribution of mangroves between 2017 (March) and Sep 2019 using Google earth images, following inferences could be drawn:

- (a) Overall health of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 with 2019 and it is observed that there was an increase in mangrove cover between March 2017 and September 2019 to the extent of 256 ha, which is about 10.7%. This suggests that the mangrove and the tidal system in the creeks remain undisturbed over this period.
- (b) The observed tidal ranges indicate that the creeks experience normal tidal ranges, adequate for the growth of mangroves.
- (c) While Kotdi creeks have shown significant increase in dense mangrove cover, it remained unchanged/ marginal increase in Baradimata creek, Navinal-Bocha island - Bocha creek system and Khari creek.
- (d) At Navinal creek, which had shown formation of sand spits from western bank to east, has shown good growth of mangroves in the southern sector. However, in the northern sector, the dense mangroves on the landward edge of western part of the creek was observed to be converted to sparse mangroves, occurring in patches. However, good tidal flow at the far end of the creek is noticed, it is recommended to measure tide at closer intervals (every 300m) in the sections of Navinal Creek upto the meeting point at Bocha creek during the next monitoring period. This may indicate locational change of tidal range and also impact of sand spits on the tidal regime from the middle to the northern end of the creek. Alternatively Drone survey with appropriate speed and elevation may also be considered in the subsequent survey(s) at both high and low tides to determine the extent of tidal water reaching along this part of bank of the creek along with the residence time.
- (e) Erosion around the Bocha island has been continuing at the rate of 10 – 16m/yr requiring urgent action. The Conservation plan had already suggested two solutions to mitigate erosion, which will be undertaken after taking approvals from the concerned authorities. APSEZ has already initiated the process of obtaining required approvals to execute the deepening the mouth of Bocha creek, as a first step and same will be implemented and monitored for erosion to decide the future course of actions required, if any.

Table 8. Observations of tide levels in the creeks in and around APSEZ

Location - 1 KOTADI CREEK 1-L2	2020	2017
LATITUDE / LONGITUDE	22° 47' 29.66"N 69° 33' 44.84"E	22° 47' 28.99" 69° 33' 42.20"
Max.	5.81	5.45
Min.	2.81	2.17
Mean	4.51	4.18

Location - 2 KOTADI CREEK 1-L1	2020	2017
LATITUDE / LONGITUDE	22° 48' 0.57"N 69° 34' 25.23"E	22° 48' 04.43" 69° 34' 28.97"
Max.	5.84	5.63
Min.	2.94	3.16
Mean	4.33	4.59

Location - 3 KOTADI CREEK-2	2020	2017
LATITUDE / LONGITUDE	22° 46' 36.45"N 69° 36' 26.25"E	22° 46' 36.77" 69° 36' 27.59"
Max.	6.08	5.60
Min.	1.38	2.98
Mean	3.24	4.78

Location - 4 BARADIMATA CREEK 1	2020	2017
LATITUDE / LONGITUDE	22° 48' 3.76"N 69° 38' 8.78"E	22° 48' 14.54" 69° 38' 22.09"
Max.	6.08	4.83
Min.	2.88	3.59
Mean	4.42	4.24

Location - 5 BARADIMATA CREEK2-L1	2020	2017
LATITUDE / LONGITUDE	22° 46' 2.65"N 69° 39' 56.80"E	22° 46' 01.30" 69° 39' 57.24"
Max.	5.90	5.50
Min.	0.50	4.01
Mean	3.46	5.01

Location - 6 BARADIMATA CREEK2-L2	2020	2017
LATITUDE / LONGITUDE	22° 47' 29.85"N 69° 40' 21.45"E	22° 47' 30.01" 69° 40' 21.83"
Max.	6.11	4.89
Min.	3.41	0.53
Mean	4.86	3.05

Location – 7 NAVINAL CREEK-L1	2020	2017
LATITUDE / LONGITUDE	22°46'47.51"N 69°40'59.09"E	22°46'47.49" 69°40'57.78"
Max.	6.01	5.21
Min.	3.41	3.42
Mean	4.58	4.52

Location – 8 NAVINAL CREEK-L2	2020	2017
LATITUDE / LONGITUDE	22°45'44.89"N 69°41'19.88"E	22°45'43.39" 69°41'20.61"
Max.	6.18	5.20
Min.	1.98	3.76
Mean	3.80	4.74

Location – 9 BOCHA CREEK-L2	2020	2017
LATITUDE / LONGITUDE	22°45'58.52"N 69°41'36.13"E	22°46'47.49" 69°40'57.78"
Max.	6.03	5.75
Min.	2.53	3.87
Mean	4.33	4.97

Location – 10 BOCHA CREEK-L1	2020	2017
LATITUDE / LONGITUDE	22°45'43.20"N 69°42'22.22"E	22°45'47.21" 69°42'16.87"
Max.	6.16	5.81
Min.	1.06	2.99
Mean	3.58	4.91

Location – 11 BOCHA CREEK-L3	2020	2017
LATITUDE / LONGITUDE	22°45'12.33"N 69°42'41.88"E	22°44'09.38" 69°43'02.58"
Max.	5.88	5.75
Min.	1.48	3.44
Mean	3.62	4.89

Location – 12 KHARI CREEK	2020	2017
LATITUDE / LONGITUDE	22°47'39.13"N 69°43'27.00"E	22°47'46.53" 69°43'26.82"
Max.	6.01	6.15
Min.	1.71	4.07
Mean	3.77	5.43

Location – 13: NAVINAL CREEK-L3	2020	2017
LATITUDE / LONGITUDE	22°43'57.58"N 69°42'30.60"E	22°44'09.38" 69°43'02.58"
Max.	6.10	5.18
Min.	1.14	3.54
Mean	3.66	4.63

Annexure – 3

ALGAL REMOVAL WORK FROM MANGROVE AREAS

Creek area is regularly observed for checking algal encrustations. On the mangrove recruits & where the algal encrustation is found to be substantial, it is removed manually by deployment with required manpower. This operation is performed during the low tide conditions. The main object is to provide better growing condition for the growth of mangroves. Periodically, spread of *Prosopis* sp towards the mangrove areas is also observed as this species will compete with mangrove plants for growth.

Mangroves nursery is developed in a creek behind IOCL & 50,000 Nos. of new saplings are planted in creek area.

Reference photographs of activities undertaken as per given guidelines,

A) Removal of algal encrustations & preventing the spread of *Prosopis*:



B) Latitude & Longitude details of the location for removal of algal encrustations:



C) Development of Nursery & Plantation of Mangroves:



Annexure – 4

C S R K U T C H

2020-21



Adani Foundation

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

Our journey

The year 2020-21 has passed off with great experience and new challenges for Adani Foundation due to Covid 19 Pandemic. Adani Foundation team has started working just after one week of lockdown to keep commitment towards the community. As a part of dignity of workforce team has done remarkable work for fresh food and ration kit supply to retain them at workplace with safe and comfortable environment. Regular visit to senior citizen home and running MHCU by medical officers was not less challenging. Our women SHG has prepared more than 1 lac mask for Taluka Health office, Anganwadi Staff, Police Staff, Custom and coastguard and Education staff. Adani Hospital – Non Covid Hospital and GKGH Bhuj Hospital – Covid Care Hospital remained opened 24x7 throughout the year which is matter of great proud.

Current year Sea weed culture and Natural Farming Promotion were the new concepts which will be planned with five years vision. Mangroves costal biodiversity, water harvesting structures and Tissue culture will have sharp turn with proper documentation and demarcation. Adani Vidya Mandir has proven best in education by reaching to unreached through digital technology, happy to see the fisherman students studying sincerely sitting in fisherfolk settlements by operating tablets. New Era touched upon Framers too who are a part of discussion about natural farming on Zoom application. "Vadil Swasthaya Yojna" and "Suposhan" were in last execution year as a Project but both project will be with us by sourcing and moral support by linkages with different Government Scheme.

Happy to share – under guidance of seniors proper frame work was developed for supporting community as a bridge between various Government schemes and needy people by "Community Resource Centre" its true need and real sustainable way. Fisherman and women employment sourcing created very positive impact as a regular source of income for them.

Adani skill Development center entered into MOU with KSKV Kutchh University for various skill development trainings. The ASDC is committed to the cause of the deprived and underprivileged to generate employment through enhancing skills. It has been working relentlessly which resulted in rapport building with District Administration Kachchh also.

Success is due to present of torch barer and mentor in life who is Respected Dr. Priti Adani. If you have mentor like her in life, she can turn a Mess into message. A Test into a Testimony, A Victim into Victory! We heartly thanks our Rakshit bhai, Respected Gadhvi sir and Respected PNR sir for guidance and motivation.

We wish all the very best to whole Adani Foundation Parivar !

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Education (SDG - 4/4.a)



The future of India depends upon the quality of education imparted to our children. We believe that it is the joint responsibility of the Government and citizens to improve school education. With an aim to enhance the quality of primary education in Kutch District, Adani Foundation proposed to adopt 17 government schools located at Mundra Taluka under the project '*Utthan*' as a pilot project. By this intervention, Adani Foundation seeks to facilitate; Focus on 'Priya' students and celebrate their progress, Make learning joyful, provides adequate resources and facilities, strengthen the curricula to provide basic skills, especially in the areas of literacy, numeracy and skills for life and focus on Teachers' capacity building. **(SDG - 4/4.a)**



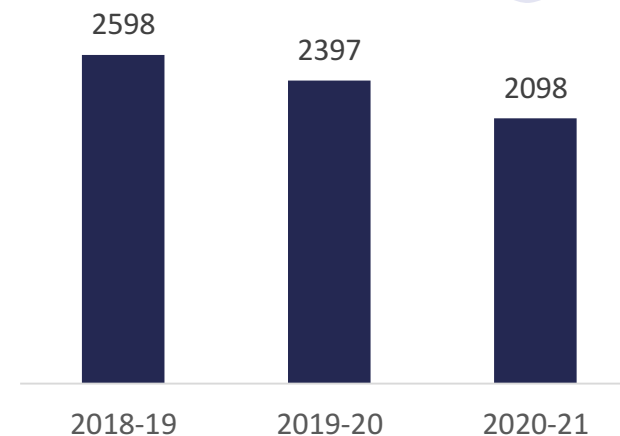
Utthan

How Utthan Sahayaks overcame/overcoming the Pandemic

In COVID 19 Pandemic, when the schools were completely closed, education went on mobile platform and students are still dependent on mobile internet for their education.

- ✓ During the initial phase of lockdown Utthan Sahayaks reached Priya Vidyarthi through series of curated SMS and WhatsApp messages, they share text/video/audio content focused on hands-on learning activities.
- ✓ Initial approach realized us that we need to find another way to touch our audience Utthan Sahayaks convert this challenge into opportunity. They make themselves tech savvy by learning how to conduct classes on various platform especially on Google classroom.

Year	No. of school	No. of village	No. of Girls	No. of Boys	Total
2018-19	17	7	1318	1280	2598
2019-20	17	7	1227	1170	2397
2020-21	17	7	1069	1029	2098



Our out reach for Utthan project

- ✓ In pandemic times ,Priya Vidyarthi's' meet were scheduled on Google meet platform. Primarily Utthan Sahayaks faced the challenges that students are unable to meet them virtually due to the single smart phone availability in the family.
- ✓ Here with us a only solution to make them study available at their door step by following all the guidelines suggested by government to maintain social distances.
- ✓ From October onwards Utthan sahayks approached their students by taking physical classes at their respective residence.

Utthan – during pandemic

Pandemic situation has challenged the functioning of various activities of the project but team Utthan and Adani Foundation adapted to the transitions required to continue with its outreach. With the travel restrictions, team Utthan has adopted all the protocols assigned by the Adani Foundation and the health authorities and has continued both its offline activities while adopting online methods to carryout its activities especially to reach out our students.



Capacity Building Program

- Usage of Google meet and Google classroom
- Art of living
- Individual learning
- Digital Bookmarks
- Vedic maths
- Gandhian Education Philosophy

Competition

- Essay writing
- Ganpati idol making
- Doha recitation
- Garba decoration
- Christmas celebration
- Makarsankranti celebration

Utthan Additional achievements

Solar panel has been installed in 17 schools of Utthan – so now the schools will be using renewable energy. Support of teachers and Principal during installation was substantial. This is changing and challenging step for Utthan Project to convert whole school running on renewable energy. In coordination with Mundra Solar Panel manufacturing unit – systems installed with inverters.



Utthan is not only deals with Education – but the main strength of the Project is Sahayak. Sahayaks remain in touch with parents and make them understand the value of education. Apart from it, Utthan Sahayaks motivated more than 700 parents of girl students to open "Sukanya Samriddhi Bank Account" for their bright future

Utthan – Capacity Building Programmes



Staff Training - Adani Schools

Date: Saturday, February 20, 2021

10:00 hrs to 12:30 hrs

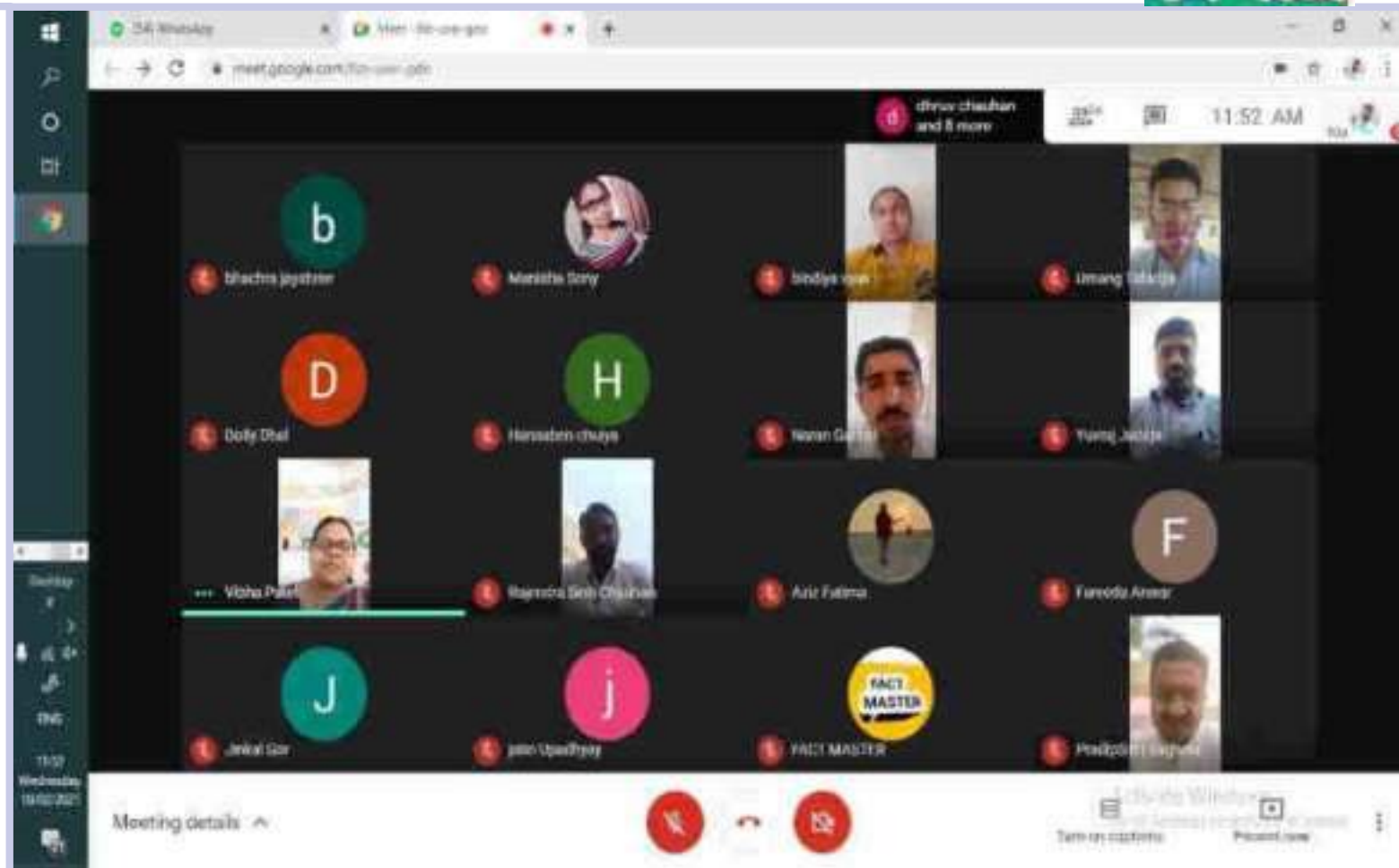
Platform: ZOOM

Topic: A Blissful Journey: From Entropy to Stillness

Resource Person: **Mr Saurabh Beniwal**

15+ years of Corporate and Educational Training Experience along association with various organizations for their education, wellness, stress, leadership, HRM, etc. He has been associated with numerous seminars, PPTs, as National level - Teacher Empowerment Initiative, conducted more than 100 highly energetic workshops, Seminars and counselling sessions for Teachers, Students, Principals and Parents on various topics listed in profile below. Served more than 1,00,000 students, teachers and Parents across nation.

Timings	Discussion Point	Material/Activity
10:00 to 10:30 hrs	History of Mind, Comfort Zone	PPT, presentation, Discussion
10:30 to 11 hrs	Types of Teachers and how to deal with them, 3 C's of life	PPT, Discussion and Activity
11 to 11:30 hrs	Human, Emotional Mind, effective Communication with kids to harness Power of hidden thinking	PPT, Story, Discussion
11:00 to 12 Noon	Goal Setting for teachers, communication Gap, Outer world vs Inner world	PPT, Video, Story, Discussion
12:00 Noon to 12:30 hrs	Material vs Spiritual Knowledge, Meditation	PPT, Guided music meditation for 15 minutes



Utthan - Impact



IMPACT OF THE PROGRAM

Beneficiary of Online classes

- 17 Utthan Sahayaks
- 17 Gov. Primary Schools
- 2098 total students

Weekly Content of IT and Physical Education

- 106 Gov. Pri. School
- 35000+ students

Virtual Mothers meet

- 500+ Mothers attended meeting on Google meet

Capacity Building Program

- 70+ Webinar attended by Utthan Sahayak
- 10 Seminar/Workshop

Competition /Celebration

- 248 Students took part virtually

Uthhan – Testimonials

Confessions

'Solar Panel installation in Uthhan Schools is biggest step towards best usage of renewable energy. Now our students can study comfortably during absence of electricity and not only this – student can understand value of solar energy too"

Principal,

Mundra, Kutch, Gujarat

'Utthan Sahayaks with the help of customized curriculum and structured time table meet huge success to achieve the main objective of the program

In corona pandemic Uthhan Sahayak acted as a main force for students to remain active during lockdown through home visits, various competitions and E-events.

In future, Utthan will be sound support system for Government Schools of Mundra

I wish all the best to Team Uthhan

Haresh Patel
Taluka Primary Education Officer
Kachchh- Bhuj

'During this pandemic period Utthan Sahayaks are doing very commendable job. We will receive an encouraging feedback from Parents too. Project Utthan has made a positive impact on our students as well as in school too.

Mahendrasingh Solanki
Principal,
Zarpara Shaala no. 3
Mundra, Kutch, Gujarat

'Education is what builds a nation generation after generation and the process begins early on; first at homes/communities and then in the schools. With an aim to enhance the quality education in government primary school in Kutch district project Utthan launched by Adani Foundation with the close monitoring by GoG as a pilot project with 17 schools at Mundra.

After the completion of 2 years, project marks a very positive impression not only in school but also in community. Utthan Sahayaks played a vital role to transfer Priya *Vidyarthi* into main stream. School culture and environment has become more advanced and techno based with the up skilling of government teachers through various capacity building program. Attendance of schools has increased due to active Mothers meet and SMC meetings.

I am sure in near future with the active involvement of this project performance level of government primary school shall further improve.

My good wishes and support are always with the team!'

Prabhav Joshi (IAS)
District Development Officer
Kachchh- Bhuj

Adani Vidya Mandir, Bhadreshwar (SDG - 4/4.1)

EDUCATION: FREE AND COMPULSORY – WHAT A WAY TO LEARN LOGIC!" The quote mentioned unfolds the distinguished vision of Adani Foundation to provide cost-free education, food, uniform, books to the children of economically challenged families of Mundra Bock. Adani Vidya Mandir, Bhadrashwar was established in June 2012, with aim of uplifting the communities through education. The school is equipped with excellent infrastructure and resources required for all-round development of the student. The child is given admission in class 1 and is molded to be an educated and a good human being by experienced and compassionate teachers. The school follows a curriculum designed by GSEB.



Adani Vidya Mandir, Bhadreshwar

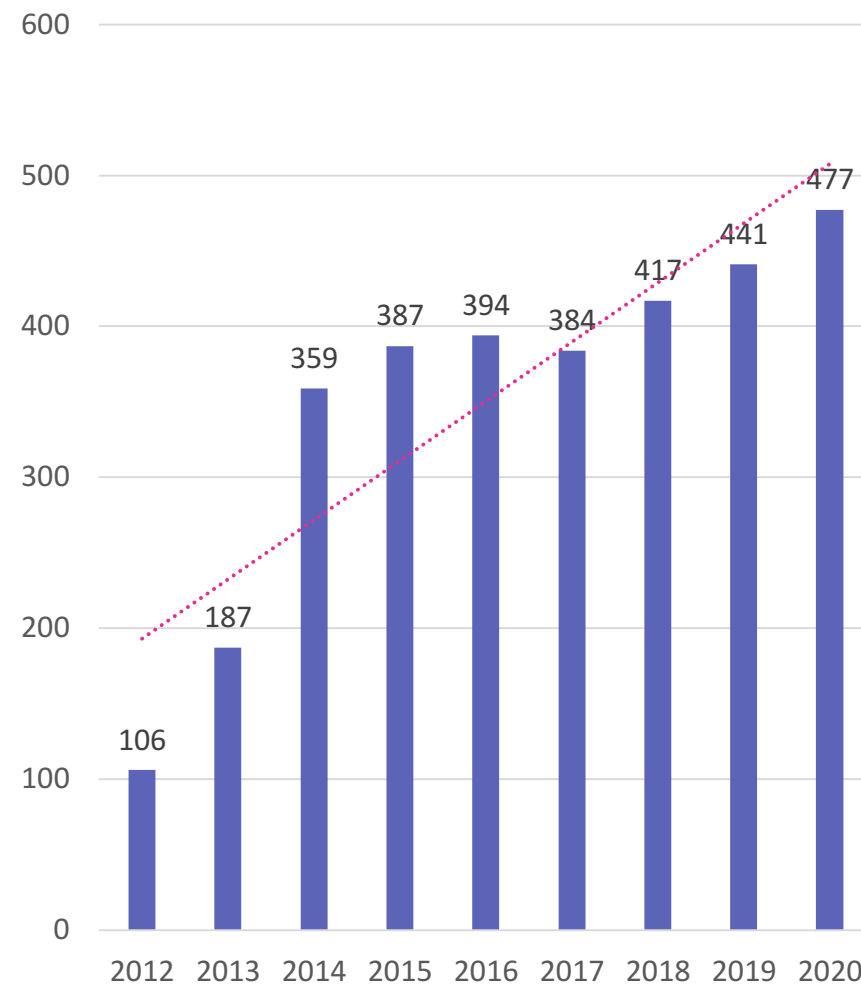
Adani Vidya Mandir Bhadreshwar Gujrat Board Standard 10th Examination Result is 82.60% (19 students have passed the examination out of 23). Adani Foundation will take all responsibility of further study of students with respect to their interest.

The global upsurge of the Covid-19 pandemic and the resultant lockdown has brought all of us to face such unprecedented times and situations. The challenge was rural locality, network unavailability, lack of health awareness, apprehensions for technology and gadgets and financial crunch to spend on mobile / Internet.

But We did not Give-up and reached out to our students to pursuit educational through virtual platform by various initiative.

AVMB STD - 10 SECOND BATCH RESULT		
Year 2020-2021		
SR NO	GRADE	STUDENTS
1	Above 80 %	00
2	Above 70 %	02
3	Above 60 %	05
4	Above 50 %	07
5	Above 40 %	05
6	Fail	04
TOTAL		23

No's of students



Activities Covered

- Admission process of Std 1 students through draw system.
- Online Class through What Sapp and YouTube video
- DD Girnar Timetable intimation and & Follow-Up
- Regular home visit for homework and lessons with PPE's by Teachers
- Textbook support to students of all classes.
- 10th standard students divided into small Group and Mentoring by AVMB Teachers.
- Unit test conducted as per GSEB circular for the students
- Offline Examination for class 3rd to 10th
- G Suite & Diksha Training for Teachers
- Opened G-Mail Account of Each Child
- **Tablet support to 10th class students for Online Classes by Employees Volunteering Programme**
- Self Learning Material Distribution to 1st to 9th standard students who don't have access for online education.
- Parents Meeting : Regular basis
- Start Remedial Classes at 3 villages with Following all Gov Covid Guide
- reopens Schools class 9th to 10th Standard
- Day Celebration (Fit India, Children day and Mathematic day & Republic day) Virtually and Physically to get rid off from the Covid Stigma



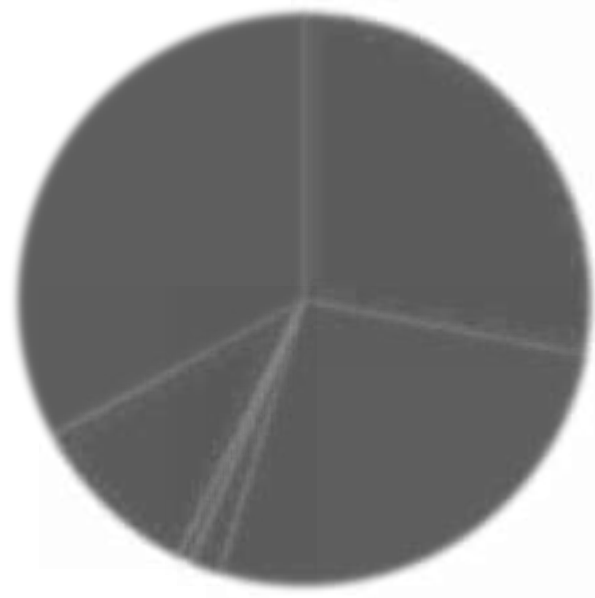
Community Health (SDG - 3/3.8)

*Access to quality healthcare is a
fundamental right of every individual*



Health plays a crucial role in transforming people's lives. Throughout the year, COVID-19 has taught us the lesson about the importance of health. Access to quality health care gives a fair chance to lead healthy, productive lives. Healthy people can utilize opportunities available to them.

Community Health



Rural Clinic & Mobile Health Care unit

Adani Foundation focuses on ensuring good health for better contribution to growth and progress. During this pandemic situation health is the basic need for development of community. Their objective is to live healthier lives by promoting healthcare seeking behavior.

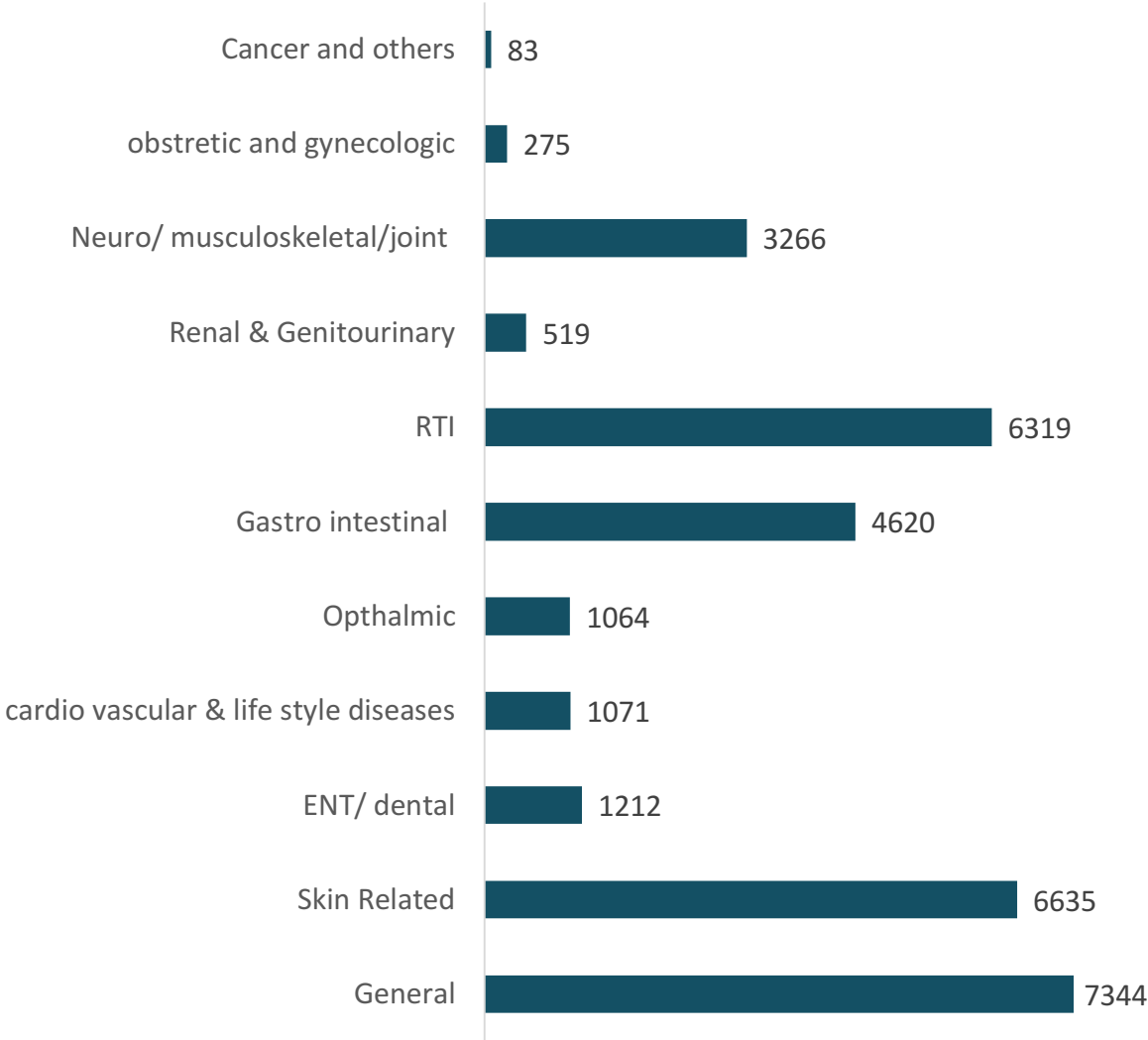
Mobile Health Care Units and Rural Clinic Services are deployed with the objective of providing basic healthcare facilities to remote rural areas as well as poor peoples. The service is being executed by Adani Foundation is to reduce travel time, hardships and expenses.

The mobile health care unit covers 25 villages and 07 fishermen settlements. Around 90 types of general life saving medicines are available in these units. This service becomes a boon for women, elderly and children as the service is available at their doorstep.

Rural Dispensaries are established where there is a gap in the healthcare services. The Adani Foundation operates Rural Dispensaries in 7 villages of Mundra block, 03 villages of Anjar block and 1 clinic in Mandvi Block. Mobile dispensary and rural clinics provide health services with token charge of 10/- rupees per patient daily by a doctor and a volunteer.

During this year total 16611 beneficiaries 6141 male and 10470 female were benefitted by Mobile van and total 15797 beneficiaries 7128 male and 8669 female were benefitted by Rural clinics.

Community Health – Disease wise Distribution



Health Cards to Senior Citizens

Senior citizens often face difficulties in getting treatment for want of financial, social and moral support. In this stage of life is there is need special care for health and warmth hence Adani foundation has started senior citizen project in Mundra Block since 10 years. The main objective is to provide specialized, timely and hassle-free healthcare services according to the needs of senior citizens. The initiative also encourages them to pay attention to their health and promotes preventive healthcare.

During the year 2020-21, total 5836 transactions were done by 8711 card holders of 68 villages of Mundra Taluka. They received cash less medical services under this project.

The limit for the beneficiary has been set Rs.8000/- in exit year. the senior citizens get emergency medical care at Adani Hospital, Mundra and refer to GKGH, Hospital ,Bhuj in Emergency.



Specialty Camps

General health camps, Pediatric Camp, breast and cervical cancer screening camp and surgical health camps was organized at frequently to meet the specific requirements of the community and in disease outbreak season with following the guideline of COVID-19.

In the year of 2020 -21 total 97 people had been benefitted by various kind of camp and needy and screened patients are treated in Adani Hospital.



Sr. Citizen status Year-2011 to 2020-21											
Number of Villages	Total Cards	Total Survey	Pending Renew Cards	EXP	Green cards	Blue Cards	BPL Cards	APL Cards	No Ration Cards	RSBY Cards	MA Cards
68	8711	7095	901	715	6328	767	2493	4555	47	77	222

Medical Support Detail

Adani Foundation provides primary health care and financial assistance to needy poor people for ailments such as kidney related problems, paralysis, cancerous and tumor surgeries, neurological and heart problems, blood pressure, diabetes etc.

Partial Medical Support had been given to 1008 beneficiaries of Mundra, Mandvi and Anjar Block at Adani hospital, Mundra. where as in the Critical cases after stable them we refer them to GKGH, BHUJ for further treatment.

Dialysis Support

The drinking water of Mundra contains high TDS (Total Dissolved Solids). Hence, the proportion of patients with urinary stones and kidney failure is more. Patients suffering from kidney-related diseases require regular dialysis which is costly and adds to the financial burden of the family.

Hence, the Foundation has undertaken a programme to providing dialysis treatment to help the extremely needy patients to live a healthy life. During this year, 6 patients were supported for regular dialysis (twice a week) with partial support.

Ukado & Vitamin-C Tablets Distribution

Covid-19 pandemic is at the peak level And there is no any specific treatment But as preventive measure and immunity booster we had started Ayurveda UKADO distribution at various public spot in Mundra.

The TDO, THO, Flywing foundation, Ayurveda Department had support and coordinate in UKADO and Vitamin-C tablets distribution activities. Total **18240 people had get benefits of UKADO and Vitamin-C tablets.**



Machhimar Shudhh Jal Yojana (SDG 6/6.4)

To reduce water born disease and women drudgery to get water, Potable water is provided to the fishermen communities at different vasahat through water tanker since 8 years.

Sr.	Vasahat	Family	Requirement Per day	Remarks
1	Luni	116	15000	9 Months
2	Bavdi Bandar	107	15000	9 Months
3	Kutdi Bandar	118	15000	9 Months
4	Randh Bandar	245	25000	9 Months
5	Zarapra Vasahat	90	5000	12 Months
6	Vira bandar	80	--	Linkages with GWIL
7	Juna bandar	160	--	Linkage with Mundra GP
8	Ghavarvaro Banada	60	--	Linkages with GWIL
9	Zarapra chacha	55	--	Linkages with Port GWIL
	TOTAL	1031		

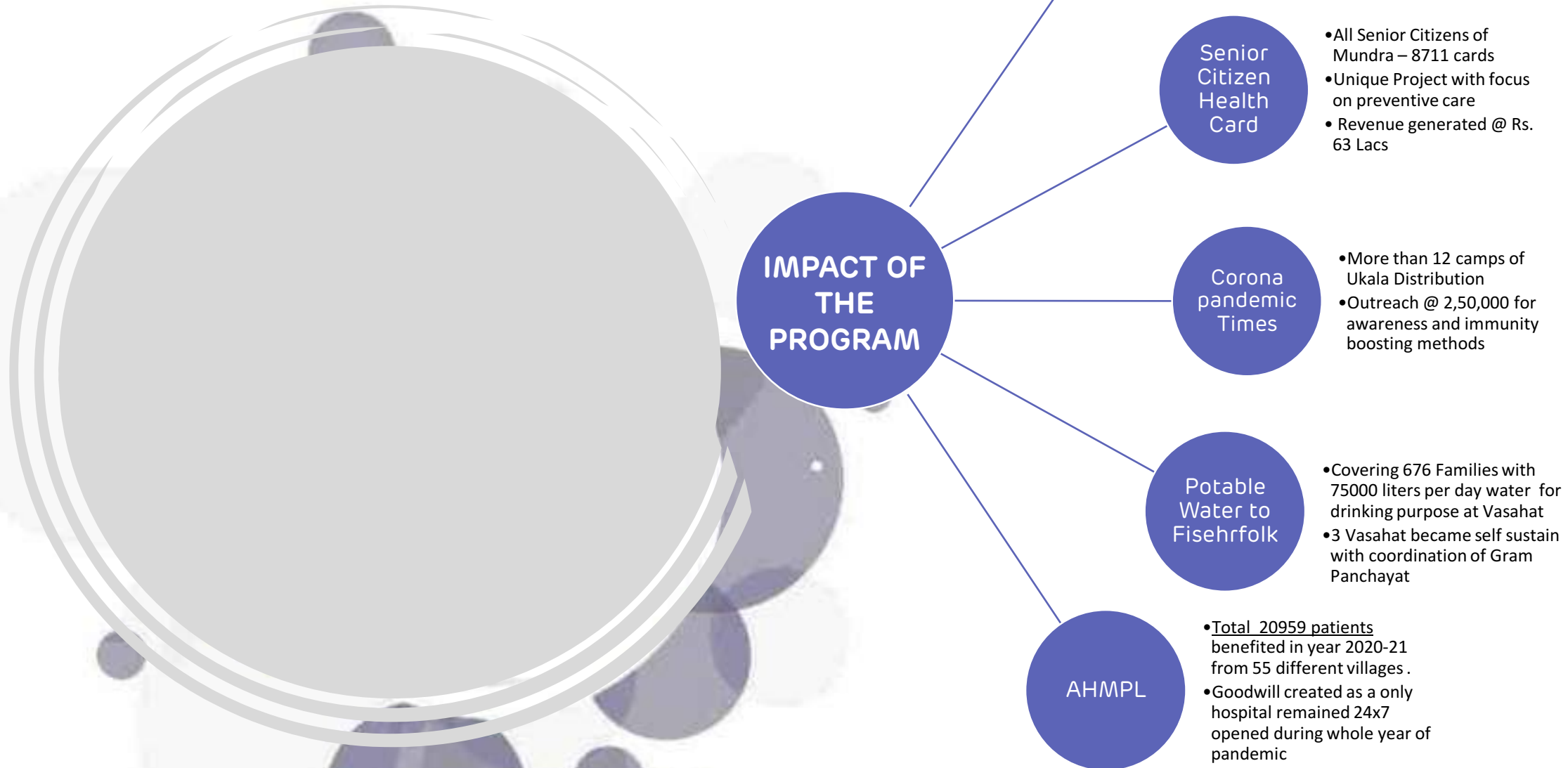


Community Health Bhuj (SDG 3/3.8)

- Adani Foundation Team has initiated coordination with GKGH hospital since 2014 and established a reception area for the smooth patient coordination and preparation for the social networking program.
- GKGH Hospital is Covid Care Hospital since 22nd March 2020. Adani Foundation staff members supported in patient counselling, coordinating and supporting for dead body covid care van.
- Total 3368 Covid patients got treatment from overall Kutch with satisfaction.
- Dead body medical van – Dignity to death is one of the noble initiatives taken up by the Adani Foundation. If any death occurs in GKGH, dead bodies are shifted to the native village of the concerned in the Kutch District free of cost. Total 809 dead bodies privileged till now to different locations in Kutch including Covid Patients.
- Mahiti Setu is linkages between various Government Schemes and beneficiaries. Through Mahiti Setu sourcing of 2378 beneficiaries and linkages with more than 780 cards of MAA Yojna and Ayushman Yojna



Community Health - Impact



Environmental Sustainability

Sustainable development has many important facets/components like social, economic, environmental, etc. these components are closely interrelated and mutually re-enforcing. Under Corporate Environmental responsibility 10 km radius villages from SEZ Boundaries.

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. Including this a big recharge operation by bunding was taken up for Zarpara village as rainfall was very good current year

To make connections between human actions and the level of biological diversity found within a habitat and/or ecosystem, this year we launch project "Sanrakshan" in coordination with GUIDE and Sahjeevan.



Water Conservation Projects (SDG 6/6.6)

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 Government Figures. Our water conservation work is as Below.

- A large number of water harvesting structure (18 Nos. of check dams in coordination with salinity department)
- Ground recharge activities (pond deepening work for more than 52 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
- Roof Top Rain Water Harvesting 54 Nos. which is having 10,000 litre storage which is sufficient for one year drinking water purpose for 5 people family.
- Recharge Bore well 75 Nos which is best ever option to
- Drip Irrigation 823 Farmers benefitted in coordination with Gujrat Green Revolution Company
- 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.



Jiv Srishti Saurakshan Yojana (SDG 15/15.9)

Bio Diversity Park – Mundra

Ecological greenbelt development plan expects to attract and provide habitats for many species of major faunal groups such as amphibians, reptiles, birds (terrestrial and aquatic), butterflies and mammals. Further this developed area can act as recreational, educational and interpretation center for the community of the corporate sector to understand and enhance their knowledge base on local environmental and ecological scenario.

Adani Foundation, Mundra-Kutchh proposed a biodiversity park at 5 acres Nandi Sarovar area and approached to Sahjeevan, Bhuj for technical support for same. Sahjeevan team visited this proposed site for development of greenbelt to support biodiversity and enhancement of overall ecological food web existing in and around the landscape in first phase.

In addition, senior team of Adani Foundation and Sahjeevan also discussed in details for this program and suggested to initiate an interpretation center for awareness to various stakeholders on very unique

biodiversity of Kutchh region in second phase.

Zone wise different habitats identified by technical team, i.e. Outside Plot Area, Along Waterlogged Area, Climber/Twiner Area, New Plantation Area, Entry Gap Filing Area, Gate Area, and Wetland Area within the proposed project area, technical team will develop a list of species that are representative of mature, undisturbed local forests, grasslands and wetlands. The chosen species will be typical of the species composition of local habitats.

Develop a list of plant species that can be chosen on the basis of aesthetic characteristics, in particular for the beauty/abundance of their flowers, eventually of their fruits/foilage.

Define information on different types activities involved under this ecological greenbelt development project (i.e. butterflies areas, medicinal plants areas, birds areas etc.).

Develop a manual that will give guidelines for habitats based on local practices, for short term and long-term management.





Jiv Srishti Saurakshan Yojana (SDG 15/15.9)

Coastal Bio Diversity Park – Luni

In the coastal environment mangroves and mudflats are dynamic ecosystems that usually support a large population of floral and faunal life forms. Mangrove forests are highly productive ecosystems, which provide numerous goods and services both to the marine environment and people. Mangroves in India are spread over nine maritime states and three Union Territories. Gujarat has the longest (1,650 km) coastline among the maritime states of the country. With the second largest mangrove cover in India after West Bengal, Gujarat's mangrove area has increased from 1,140 km² in 2017 to 1,177 km² now.

A major portion of human population of Gujarat is solely dependent on these coastal ecosystems for their livelihood. Thus, several mangrove restoration programmes/ activities are in progress in the state. Mangrove restoration activities in Gujarat are mostly single species stands of *Avicennia marina*. Adani Foundation at Mundra-Kachchh has initiated multi-species plantation of mangroves in Kachchh in association with GUIDE. During 2018-2019 (Phase-I) multi-species mangrove plantation was carried out in 10 ha, during Phase-II (2019-2020) it was 02 ha and during Phase III (2020-2021) it is 01 ha. Due to geological set up of Kachchh where fresh water source is atypical, the survival and growth of mangrove plantation remains poor. Thus, a survival rate of 30% is expected for this multi-species plantation. Mangrove biodiversity park of its kind will help in disseminating knowledge on mangrove ecosystem and simultaneously conserving the species.

Since, some of the mangrove species are not readily available in Kachchh, their seeds/ propagules were procured from other districts of Gujarat and other states. The proposed species of mangroves that have the potential for enhancing mangrove biodiversity in and around APSEZL include *Rhizophora mucronata*, *Ceriops tagal*, *Ceriops decandra*, *Rhizophora apiculata* and *Aegiceros corniculatum*.



Vision

Enhance the diversity of mangrove and its associated species in suitable coastal region of Kutchh, which in turn increase the faunal diversity and fishery resources of the area by providing suitable habitats and breeding ground. The ultimate aim of the project is to improve overall coastal biodiversity of the region.

Mission

- Reconnaissance and identification of potential sites for technical suitability for enhancing mangrove biodiversity in Kutchh.
- Examine tidal pattern, availability and duration of fresh water, water regime/inundation, and substratum and water quality, species association at the site (based on secondary literature).
- Development of different plots based on combinations of species and site characteristics.
- Nursery development, transplantation of nursery grown seeds / propagules, monitoring its survival, etc.
- Examine the physico-chemical characteristics of water and sediment in the selected plantation sites.
- To detailed out the diversity, species richness of marine faunal component in the selected plantation sites
- To assess natural (algal encrustation, shift in substrate nature) as well as anthropogenic threats (cattle grazing, lopping) to the plantation site and provide suggestive measures.
- Long term monitoring plan and protection of the developed mangrove patches and coastal biodiversity in the plantation sites.



Sea Weed Culture

Primary Information About Sea Weed

Recently, seaweeds have gained substantial traction globally owing to the appreciation of the benefits that they provide in societal, economic and environmental realms. Ever since the economic and ecological benefits of seaweeds recognised, there has been a constant and sustained global effort to further increase their production and utilisation by following innovative practices along the various value chains. Seaweeds are farmed commercially in several Asian countries where their utilisation for food and phycocolloids (agar, carrageenan and alginate) is intense, and their farming has indeed evolved into a social enterprise particularly in some Asian and tropical countries in the world. Seaweed farming has indeed emerged as an economic growth engine in several developing economies in Asia.

Adani Foundation Kutch

Utilization in India

In India so far, seaweed resources have been utilized exclusively for the production of typical phycocolloids such as agar and alginates by local processing units (about 30 MSMEs) from the wild harvest, particularly from the coast of Tamil Nadu. Despite developing pioneering technologies in both farming and processing for different economically important seaweeds, seaweed cultivation has not gained momentum and widespread in the country as expected but rather continued to confine to limited geographical regions in the state of Tamil Nadu alone. This could be partly due to different inherent challenges associated with open sea cultivation. The seaweed farming in the open sea is

interrupted by monsoon and hampers the year-round production efforts and sustainability. With this backdrop, and further to give traction to the seaweed industry in the country, a unique consortium of industry partners have come together on a common platform with a unified interest to build a technologically competitive and viable platform for the production and processing of the seaweed feedstock for harnessing the associated economic and ecological (climate reversal and prevention of coastal water eutrophication) benefits to the fullest extent possible while providing livelihoods to the coastal communities, in the spirit of creating and sustaining “Blue Economy” as also “Inclusive Economy/Circular Economy”



Sea Weed Culture

Vision

The consortium aims to take a holistic view of transforming seaweed resources as natural capital and use open source knowledge to build an innovative technology platform for harnessing the economic potentials along with the associated ecological benefits thereof. Also, foster a cordial relationship with visionary sponsors and collaborators from India and abroad for sustainable production and utilisation of seaweed resources for the production of innovative products while engaging the coastal communities as direct beneficiaries (human capital) of this unique effort.

Collabration

Agrocel, Piddilite, Adani Foundation has jointly initited the Pilot Project with a objective transform sew weed into Natual Capital as well as engaging community as a human capital.

Achievements

A pilot cultivation facility (5 KL tanks in 6 nos) for the farming of different economically important seaweeds in the

tanks on the onshore has been established and commenced the cultivation trials with red seaweeds *Kappaphycus alvarezii*, *Gracilaria dura* and green seaweed *Ulva*. The initial trials have given very promising results and harvested 6-7 times the seeded material in a 40-45 days cultivation period.

The successful completion of pilot cultivation trials of *Kappaphycus* has helped to move forward to set up raceway type tanks of 26 m Length × 6 m Width × 1.1 m Height in 2 nos for large scale cultivation of *Kappaphycus* in Balavadi campus at Juna Bandar, Mundra. The cultivation trials are in progress.



Growth of Kappaphycus



in various durations

Sea Weed Culture

Further plan for Adani Foundation Mundra

The initial seaweed cultivation findings have provided enough evidence for upscaling the facility over a one-hectare area in 2021-22 engaging the local fishers who can earn reasonable monthly income by formation of Group of Fisherman.

Fisherman Group is initially consist of 15 members. Adani Foundation will provide off shore and on shore cultivation of sea weed, its further process i.e. cleaning and drying and expolore market opportunities.

In recent times, two outreach programmes were also conducted for fishers living in the Juna Bandar area to ascertain their interest in adopting seaweed cultivation as an alternate profession to fishing which is fastly dwindling. There is a scope for providing an additional income stream through seaweed farming to fishers if we set up model demonstration farms. These farms can be utilised for showcasing the cultivation technology, training purpose and seed supply for those fishers who likely to become seaweed entrepreneurs.



Raceway tank with Kappaphycus seaweed



Drip Irrigation Project (SDG 2/2.4)

- **Basis of Requirements of Drip Irrigation**

The main source of livelihood being agriculture, the cultivators tend to use more and more underground water for irrigation. Underground waters have gone very highly saline. The use of such water for irrigation has made the soil also saline and the crop yields have dwindled.

- **Process of Drip Support**

Farmer have to applied in the prescribed form of Adani foundation with photograph.

Inspection and verification will be by AF representative.

Ration card, work order of G.G.R.C, 7/12 certificate and all bills must be attached.

Farmer will be informed by telephonic to have form query.

Primary information about farmer land will be received by telephone.

Farm visit within 10 days of after received of application and verified the installation of system as per map and material as per bill will be checked and get farmer feed back.

Verification report submitted to account office.

Payment within 20 days if all document is complete through net banking.

Farmer economic study after our support. – Follow up

- **We have covered 295 farmers and 1422 acre drip irrigation area in last two years which is remarkable for water conservation in first phase – in this phase we have covered 66 farmers and 360 Acre land for the same.**
- **Total 968 Farmers and 5626 Acre Drip since 2011-12 to 2020-21.**



Sustainable Livelihood Development



In the villages at Mundra Taluka, several communities are economically side-lined and weaker that depend on a sole income source or are unemployed. Sustainable livelihood projects have been launched to cater financial independence through building local partnerships, providing diverse livelihood avenues, inculcate the attitude to establish savings, equipping to earn and updating local skills by making use of existing resources to encourage self-reliant lifestyles. Participation Is encouraged by launching specific projects for fishermen communities, farmers and cattle owners, youth and women.

Work till date for Fisherman Development

444 Book Support

733 Vehicle transportation from Bandar to AVMB

86 Cycle Support

481 Scholarship Support

28015 Potable water provision

370 Youth Employment

2561 Fishing Net & Equipment Support

195 Linkages with Fisheries Scheme

3504 Ramaotsav Community Engagement

17 Fisherman Sea Weed Culture.

46878 Man days Mangroves Plantation



Fisher Folk Education (SDG 4/4.2)

Fisher folk are having less illiteracy level so they are not motivating their ward education, Children are engaged in fishing practices since child hood ,which pushed them in terribly poor scenario in every aspect of life. Hence Adani foundation have started education program in dynamic manner to cover each segment of life from the Balwadi to Higher education study through various Intervention.



Scholarship Support Scholarship Support is a programme to motivate fishermen students for High school and secondary education . Girl child is supported with 100% scholarship to girls & 80 % support to Male Students. Total 59 students were facilitated with scholarship current year

Fishermen Balwadi Education system were ceased in the covid-era. But with telephonic talk and home visit were continue since May 2020 with child & parents to keep them update for education, lesson revision and Covid awareness.

Vehicle transportation- Avail easy and safe transportation service for the Fisherfolk child of Various Vasahat to made them Regular and Synchronized with School atmosphere. Total 37 students from 6 to 10 standard are Benefitted.

Fisher Folk Education (SDG 4/4.2)



Book Support-

55 Higher secondary (9 to 12 standards) students were benefited with Books material from Juna Bandar, Zarpara, Luni, Navinal , Bhadreshwar Villages.

Cycle Support

Cycle support to Juna Bandar 9TH standard fisherfolk students to continue their study and Up down who are studying in Mundra Government School . This year 5 students were supported for the same

Ramaotsav

Ramaotsav Program was held at all fishermen vasahat for child motivation and aware parents for their ward education. This year total 442 students(1 to 10th standard) had participated in various outdoor game. Winner were felicitated with prize and others are appreciated with School bags.



Machhimar Ajivika Uparjan Yojana (SDG 14/14.B)

Fishermen are too vulnerable and marginalised community. Moreover due to uncertainty of fish catch and Four month Fishing band season they have to face vicious debt cycle. Adani Foundation with Gujrat Fisheries Board are providing Fishing equipment support as per Government Schemes.

Also AF has started various intervention for their alternate Livelihood and Employment.

Net & Equipment Support

Seven Fishermen are supported for Net and Equipment
10 Fishermen Linkage with Fisheries Department Scheme and Fishermen credit card for bankable loan

Mangrove Plantation

It is a win-win situation which provide 4830 Men days employment over 236 fishermen as well as created Environment sustainability as well.

Soft skilled & Technical training

Survey had been carried out in APSEZ Companies to Know human resource requirement And According that Fisher Youth youth were trained and interviewed for the Placement.

Total 70 Fishermen youth are selected and working in Various company current year.



Natural Farming Promotion

Soil is the key point for successful Agri-farming, it is the Millions of microorganism habitat which keeps an alive media for agricultural purposes, with improving water holding capacity, infiltration rainfall water rate, with improves plants ability to take soil nutrients which reflect on farmers Yield and returns. But the Imprudent & over use of chemical fertilizers & Pesticides deteriorate soil & Plant condition which made the ill effect on consumer health and farmer Livelihood .The permanent and cheapest solution to overcome the dangerous effects of modem agriculture to develop a farming system is to do natural farming which is economically productive and long lasting with various integrated and judicious method and management technique which play important role to maintaining or improving soil , plant health and farmers socio economic status.

Objectives

- Maximize biological activity in soil and minimize soil erosion.

- Enhance the genetic and biological system and its surroundings.
- Provide livestock with optimal living conditioned for wellbeing and better health.
- Promotion of environmentally friendly use of soil, water and air thus minimizing agricultural pollution.
- To improve the physical and biological properties of soils, self-life and flavor of farm Produce
- To reduce the use of inorganic fertilizers and pesticides.
- To convert Farm waste Biomass into renewable energy & rich Fertilizer. To increase export of farm produce

Implementation

A village level capacity building programs are organized for the farmers as awareness campaign and farmers are trained to adopt & implement Model farm initiative into their own farm. This Project will be implemented on cluster approach basis mean each cluster will have five to six model which will be used as demonstration and farmer to farmer

training to adopt and replicate in their own farm.





Model Farming : Parameters

Sr. No	Activity Name	Objective
1	Soil Health Analysis	To Provide require Micro nutrient and improvement of soil quality
2	Cow Urine Collection	To prepare Jeeva Mrut, Gau Krupa Amritam Bacteria and Panchgavya
3	Cow base Farming	To use as liquid fertilizer
4	Home Bio Gas	Source of Renewable from Farm waste
5	RRWHS	To use of natural resource (rain water) to made independent Water sustain family.
6	Kitchen Garden	Ensure inexpensive ,regular and handy supply of fresh and healthy vegetables
7	Herbals crop farming	To avail herbal medicines at Home.
8	NB-21	To create individually fodder sustainability.
9	Farm Banding	To reduce soil erosion and retained moisture in the soil.
10	Bore well & well recharge	Enhance the ground water level.
11	Drip Irrigation	To save ground water & reduce salinity ingress.
12	Fruits Crop farming (seasonal)	To Fetch high yield and returns perennial
13	Compost Fertilizer	To act As conditioning soil with increase the Nutrients and water holding capacity.
14	Wormy Compost	Increase porosity and microbial activity in soil to improve water retention and aeration.
15	Training Otlo (Farmer to Farmer)	To deliver TRAINING IN FORMAL & Informal way.
16	Jiva Mrut	As source of Natural Fertilizer and micro nutrients to healthy crop and yield.
17	Vegetable Fertilizer	To create healthy soil condtion.
18	Mulching	To create microclimate around plants root to create healthy environment for plant growth.
19	Chaft Cutter	To made easy for cattle chewable & digestion.
20	Modern Agri Tools	To have great benefit in production
21	Nursary development	To avail local plants & seed.
22	Intern Crop	To produce greater yield in limited resources.
23	Mix Farming	
24	Government Scheme Linkage	
25	Dates Tissue & Offsuit Plantation	To produce uniform date fruits in the siza shape and taste.
26	Linkage with KRPC	To become share holder and become partners with natural farming promotion

Promotion of Natural Farming –Home biogas



Home biogas is the Israel based company was founded in 2012 manufactures dynamic biogas unit not only for farm waste but for kitchen waste too. Under Gram Utthan Project, Adani Foundation is supporting home biogas to farmers to Uthhan Villages phase wise. Current year supported 117 home biogas in Dhrub, Zarpara and Navinal Villages.

- Reducing organic waste,
- Transitioning to renewable energy
- Motivation for reduction in use for fertilizer

Adani Foundation Kutch

And Improving the health and living conditions for the millions of families that are still cooking on charcoal and wood. Adani Foundation is not only supporting but creating awareness to save environment and health of the community who regularly cooking on Chula. It is proven that one hour cooking on Chula is as dangerous as smoking 40 cigrates.

As a Main Process, Bacteria break down organic waste in a naturally occurring process, and Home Biogas stores and harnesses the energy created so that it can be used for gas.

Earlier we had proceeded for capacity 2 cum but after visit and series of meetings with farmer group – we need to take up plant capacity 6 cum

Till date 117 farmers are utilizing it with satisfaction and considerable outcome by saving Average Rs. 23,400 for gas and fertilizer as well.



Plants without bio slurry:



Difference between plant growth



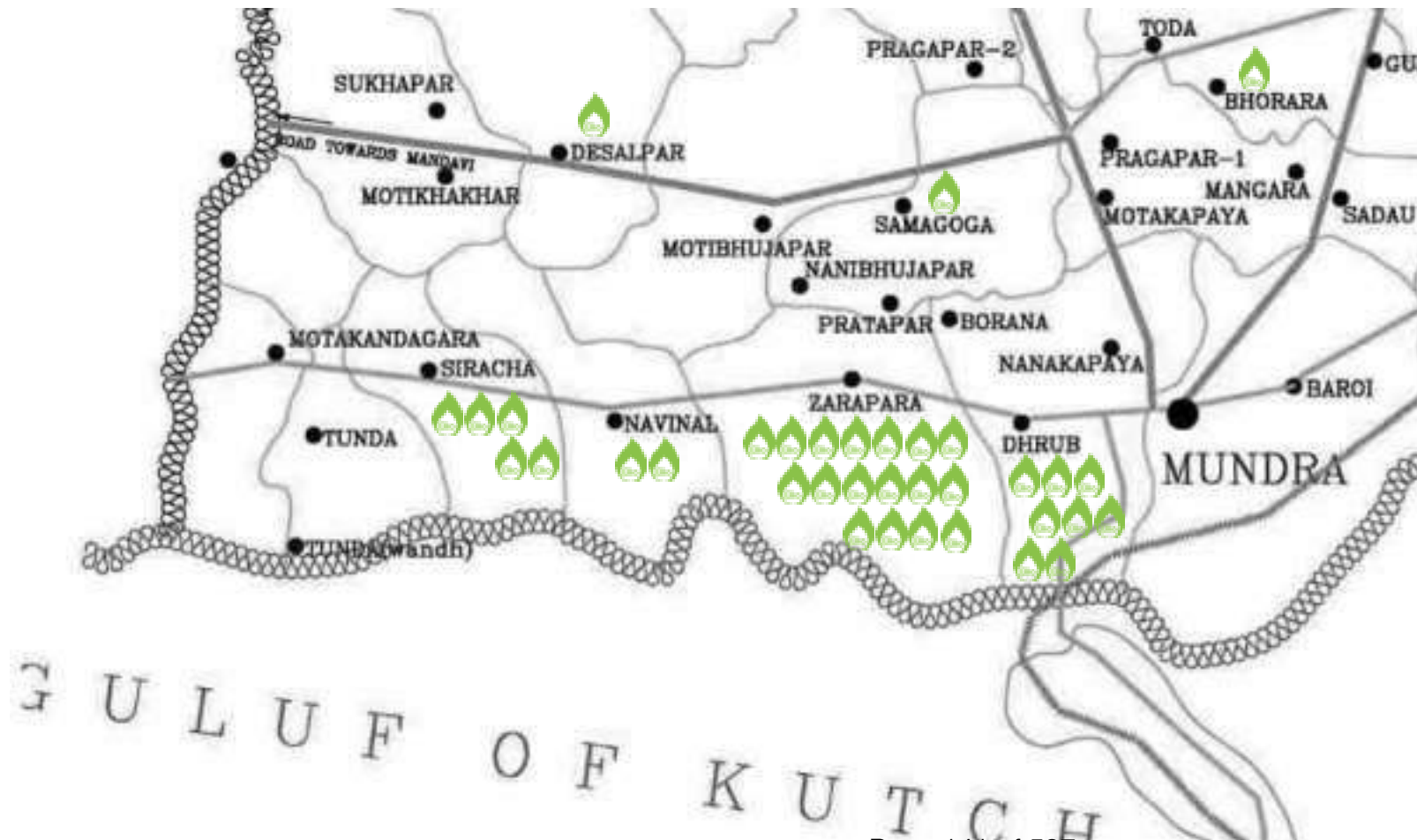
Plants with bio slurry:



Usages of biogas in villages of Mundra block

Selection of village by some important parameters i.e. Mobile Van data of lungs related issues, Ambient air quality, cattle population, agriculture land availability, willingness for natural farming

Selection of beneficiary base on willingness of Natural Farming and Number of Cattle. In this Project Primary Stakeholders are also partnering project by financial contribution as well.



	Biogas – 117 Nos
82	- Zarpara
18	- Dhrub
07	- Siracha
03	- Navinal
07	- Other

Dragon Fruit Farming (SDG 2/2.4)



Dragon fruit is a tropical fruit that has become increasingly popular in recent years. Though people primarily enjoy it for its unique look and taste, evidence suggests it may provide health benefits as well.

Dragon fruit grows on the *Hylocereus* cactus, also known as the Honolulu queen, whose flowers only open at night. The two most common types have bright red skin with green scales that resemble a dragon — hence the name.

The most widely available variety has white pulp with black seeds, though a less common type with red pulp and black seeds exists as well. In Kutchh Red variety is available due to its weather condition and soil type.

Dragon fruit contains small amounts of several nutrients. It's also a decent source of iron, magnesium, and fiber. Dragon fruit contains several types of antioxidants. These are compounds that protect your cells from unstable molecules called free radicals, which are linked to chronic diseases and aging.

Due to all these benefits and suitable weather condition and soil type, Adani Foundation has provided technical support and awareness training to start the dragon fruit farming. Five dragon fruit farms have been developed with pole and wire fencing support for 2-acre land and 1000 dragon fruit plants each. Adani Foundation had given 40% contribution in this project. Fruiting will start from June 2021.



Tissue Culture (SDG 2/2.4)

Date palm (*Phoenix dactylifera* L.) is one of the oldest trees known to mankind. It is popularly referred as “Kalpavriksh of Kutchh” as it is an important fruit tree of arid and semi-arid regions of the State owing to its high tolerance to environmental stresses especially abiotic.

The biggest constraint faced for the improvement of date palm following conventional breeding approaches includes its long generation cycles. Nonconventional approaches like Marker Assisted Selection is not possible as there is no true breeding population and very trace molecular work has been carried out till date.

Due to its cross-pollinated nature, date seeds are highly heterogeneous and heterozygous which give rise to 50% unproductive male trees and 50% female trees with poor or varying productivity in terms of both yield and quality.

Date palm cultivation is the only means of livelihood for majority of farmers belonging to Kutchh region of the state. Looking to aforesaid limitations in applying traditional and non-traditional approaches, mass multiplication (Tissue Culture) of superior quality date palm is the need of time to increase the socio-economic status of the farmers and date growers

Advantage

Tissue culture plants bearing offshoots are true-to-type in nature and hence, in short duration a uniform population could be developed. Availability of planting material of Barahi genotypes round the year.

Selection of offshoots is carried out which are disease free, higher in yield and having good fruiting characteristics, hence export of fresh dates could be carried out by the farmers. Due to Large scale plantation of Barahi trees can be increased.



Dates is the nectar of the kutchh and Our periphery villages are known to produce exportable dates belt as having appropriate weather condition.

To increase the farmer income and over all production individual farmer We have provide “Barahi Varities Tissue plant” which has good strength and productivity.

850 plants have been distributed to 34 farmers. 25 plants / Farmers.

Tissue plant cost is 3000/ per cost with 50% famer Contribution. As per tracking record more than 97% plants are growing very well as per expectation.

Agri mall by Kutchh Kalptaru FPO


GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS
Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 and sub-section (1) of section 8 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that KUTCH KALPATARU PRODUCER COMPANY LIMITED is incorporated on this Sixteenth day of July Two thousand twenty under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company is: U01100GJ3628PTC114677.

The Permanent Account Number (PAN) of the company is: AARCK1700C *

The Tax Deduction and Collection Account Number (TAN) of the company is: RCTK09384E *

Given under my hand at Manesar this Sixteenth day of July Two thousand twenty.


Digital Signature Certificate
Mr. RAJENDER KUMAR
DEPUTY REGISTRAR OF COMPANIES
For and on behalf of the Jurisdictional Registrar of Companies
Registrar of Companies
Central Registrations Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on www.mca21.gov.in.



Animal Husbandry-SLD (SDG 2/2.5)

The less rainfall and high saline ground water kept agriculture practices in threaten situation. Adani foundation have started various intervention for the Holistic development of Agriculture and Animal Husbandry

Fodder support

In 20 villages of Mundra and Anjar Block. 6.70 lacs kg Dry Fodder and 11.60 lacs kg Green fodder has been supported.

95 Farmers benefitted with NB -20 Off suite to bring fodder sustainability.

125 farmers are supported with 40KG maize per farmer with Micronutrient for **Individual Fodder Cultivation** during winter Season.



Sr. No	Village Name	No of Farmers	Average Production	Average rate	Average Value
1	Zarpara	64	4562.26	2.5	7,29,961
2	Navinal	23	3973.91	2.5	2,28,499
3	Siracha	35	3910.28	2.5	3,42,149
4	Desalpar	3	3733.33	2.5	27,999

Fodder Cultivation

Village Gauchar land development for the fodder cultivation to made fodder sustain village & Avail green fodder in scarcity phase.

With the support of Gauchar Seva Samiti Grass land development in Siracha-85 Acre & Zarpara -25 Acre done which resulted in total production 82 ton.

Animal Husbandry-SLD (SDG 2/2.5)

Bovine brucellosis

Bovine brucellosis is chronic factious cattle disease that causes abortion, dead & weak birth of calves, and infertility which reduced milk production and ill effect on health as well. Cattle and buffaloes are susceptible and persist for many years. It's a zoonotic disease (that can be transmitted from animals to people)

Brucellosis disease Control and management project has been started in our 11 Villages with **(National Dairy Development Board and KFFFDC(Kutch fodder fruit & forest development trust)** is ongoing with awareness & vaccination to (0 to 3 yrs female cattle).

Total 2132 Cattles have been vaccinated

Under this project following activities were carried out so far,

- Meeting with Gram Panchyat, Farmers and Livestock Owners
- Development and Distribution of the Awareness Materials among the stakeholders
- Mass Level awareness by pasting the poster and meetings with Village Leaders and Gram Panchyats
- Primary Survey and Sample Collections i.e. Milk Ring Test, Blood Collection and testing
- Brucella Vaccination and Ear Tagging etc.
- Expense per Animal = Rs. 177 / Cattle – including awareness and vaccination



Women Empowerment (SDG 5/5.4)

Today entire world is nothing against the corona pandemic ...not only India but all the nations world wide are striving hard to fight against this and come out of it at earliest . The situation lies in invisibility and severity of the causative agent . It is generally observed that the newly discover diseases are such which could be avoided by being more cautions.

Adani foundation works hard for upliftment of women, it has noteworthy history of completing and executing projects addressing issues like educations, health and empowerment from grass root level in Kutch district many project are done for females by various organizations but there are certain issue specially pertaining to women 's health which are still remaining unaddressed due to the social stigma and hesitations issues' like usage and importance of sanitary pad during menstrual cycle to protect oneself from fatal disease . This simple precautions can also help a female to fight against cervical cancers like

disease as well. Keeping this thought in 8th March 2020 Adani foundation held a seminar on awareness during menstrual cycle -Myth and facts . The seminar witnessed 300-400 Participants including women college going girl ,homemakers etc.. This initiatives helped the females to voice out their quarries and problems and to get a solutions for the unusual problems. District Development officer was the part of the seminar.

District development officer of kutch shri Prabhav Joshi was highly impressed with the task been undertaken for women empowerment and the motivated for production of sanitary pads to the women of adani foundation . This task was very planned and executed by the enthusiastic women group – it was a great journey towards success”

Initially the works seemed toughed as the outcome /day was 150-200 pads with minimum profits . Bit real salute this women that they did not lose hope and tirelessly kept working for this

mission . It is rightly said “practice make a man perfect and the graph of producing the pads per day rose from 300 to 350 and further elevated to 400 to 500 by proper distribution of work with strict target . Simultaneously the order started pouring in from District were satisfactorily completed . Today each woman is earning average 2900 Rupees /Month ,expansion of this task is being planned by Marketing it to every small and making it a sustainable model which may be a benchmark in itself.

The spirit hard work and motivations of these women have given a way to increase in demand from district development office ,PHC,CHC office Aganvadi and even out of state orders will be very soon catered to.

This is an example showcasing how women empowering can bring about development of a small scale task to a full-fledged Endeavour.

Women Empowerment (SDG 5/5.4)

Empowered women and girls contribute to the health and productivity of their families, communities, and countries, creating a ripple effect that benefits everyone.

An initiative under the Sustainable Livelihoods Development Program to encourage women, sense of self-worth, decision-making power, access to opportunities and resources, power and control over her own life ability to be effect change.

11 SGH Group have been engaged with 127 Women

Self Help Groups

Adhar Saheli Swa Sahay Juth is engaged making dry nasta preparation got Fssai Certificate in current March which will help to market the products

Sonal Saheli Swa Sahay Juth is engaged in Phynale & Washing powder making its Current year turn over was Rs.4.50 Lacs

Tejasvi Saheli Swa Sahay Juth- is expert in Stitching practices & made approx. Ninty thousand Three layer mask which had generate Rs.9.45 lacs revenue over 10 Women.



Sr. No.	Name of Group	Village	Skilled	Member	Total saving (In Rs)
1	Sonal Saheli Swa Sahay Juth	Shekhadiya	Phynale & Washing Powder	11	1,32,500
2	Jay Adhar Saheli Swa Sahay Juth	Baroi	Dry Snake	10	84,000
3	Tejasvi Saheli Swa Sahay Juth	Mundra	Stiching,Uniform,Bag	14	84,000
4	Umang Saheli Swa Sahay Juth	Mundra	Soft toyes, Jula,	11	84,000
5	Vishvas Saheli Swa Sahay Juth	Navinal	Tie & Die, Stiching	11	84,000
6	Jay Momay Saheli Swa Sahay Juth	Kandagara	Tie & Die, Stiching	10	84,000
7	Meghadhanush Saheli Swa Sahay Juth	Mudara	Mud Works,	10	84,000
8	Saheli Swa Sahay Juth	Mundara	Sanitary Ped	11	84,000
9	Radhe Saheli Swa Sahay Juth	Zarapara	Dhadaki, Small Godadi	14	84,000
10	Shrddha Saheli Swa Sahay Juth	Mota Kapaya	Snacks,Thepala,Vada Pav	15	84,000
11	Mogal Saheli Swa Sahay Juth	Shekhadiya	Roti,Ladu (Churama)	10	84,000
Total				127	9,72,500

Community Infrastructure Development (SDG 9,6)

Community infrastructure development includes both public and privately provided facilities and services required to accommodate and support community services, programs, activities, which is significant to improve their quality of life & Productivity. Adani foundation designed and build various structure and provide service in the Health ,Education, agriculture and sustainable livelihood area.



Community Infrastructure Development (SDG 9,6)

To store rainfall water and increase water level, Pond Bund strengthening work had been carried out at Zarpara Village apart from this various activity like approach Road Restoration at All Fisherfolk Vasahat, Bus Stand with wall Construction, Open Shed Sukhpurvah Mundra, Shelter at Randh Bandar , Garden Development Primary School Rampar village has been done in this year.



SuPoshan (SDG 3/3.8)

The objective of the Project is to reduce occurrence of malnutrition and anemia. create awareness about malnutrition and anemia and related factors amongst all stakeholders and role they may play in curbing the issue.

To successful implementation of the project, "Sangini – Village Health Volunteer" plays major role in the Project. The purpose of the Project is to reduce occurrence of malnutrition and anemia. create awareness about malnutrition and anemia and related factors amongst all stakeholders and role they may play in curbing the issue.

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As per Global Nutrition Report, Children below five years- 23 % Stunted and 8 % are wasted. 69.5 % children 6-59 months old, 55.8% adolescent girls aged 15-18 years, 55.3% women aged 15-49 years have Anaemia. Moreover anaemia prevalence in pregnant women is as high as 58.7 %) Curbing Malnutrition was part of Millennium Development Goals and again focussed through second and third Sustainable Development Goals on Zero hunger and Good Health & Wellbeing respectively.



During the year various activity like, Covid-19 awareness in village & Slum Area, Menstrual Hygiene Day, Breastfeeding Week, National Deworming Day, National Nutrition Month had been celebrated.

With slogan of "RED-ACHHA HAI" - 100 beneficiaries in Menstrual Hygiene Day, 204 beneficiaries in Breastfeeding Week, 320 beneficiaries in National Deworming Day, 20 villages covered in celebration of NATIONAL NUTRITION MONTH and 42 Family counselling had been done.

Community Engagement and other Activities		
Sr.No	Activity	Total
1	No of Sangini	24
2	Total Village Cover	41
3	Total Anganwadi Cover	70
4	SAM to MAM Monitoring Progress	03
5	MAM to Normal Monitoring Progress	15
6	Focus Group Discussion	85
7	Family Based Counselling	42
8	Village level Events	05
9	No of SAM children referred to CMTC	06
10	Total Anthropometric screening	140
11	Total Family Cover through video & Audio Calling	20
12	Total House Hold Family Visit	130
13	No. of Severe Acute Malnourished children (SAM) Telephonic Counselling	08
14	No. of Severe Underweight children (SUW) Telephonic Counselling	03
15	No. of adolescent girls-Telephonic Counselling	190
16	No. of pregnant women-Telephonic Counselling	100
17	No. of lactating mothers-Telephonic Counselling	230
18	No IFA Tablet Distribution to adolescent girls	200
19	Total Family Cover	9178
20	No of Sangini completed online POSHAN Abhiyan E- Learning module	15

THANKS GIVING PROGRAMME" MUNDRA & BITTA Site

SuPoshan Thanksgiving program was organized. In this webinar DDO, CDPO Mundra and other dignitaries remained present and appreciated the efforts to overcome malnourishment in Mundra and Bitta.



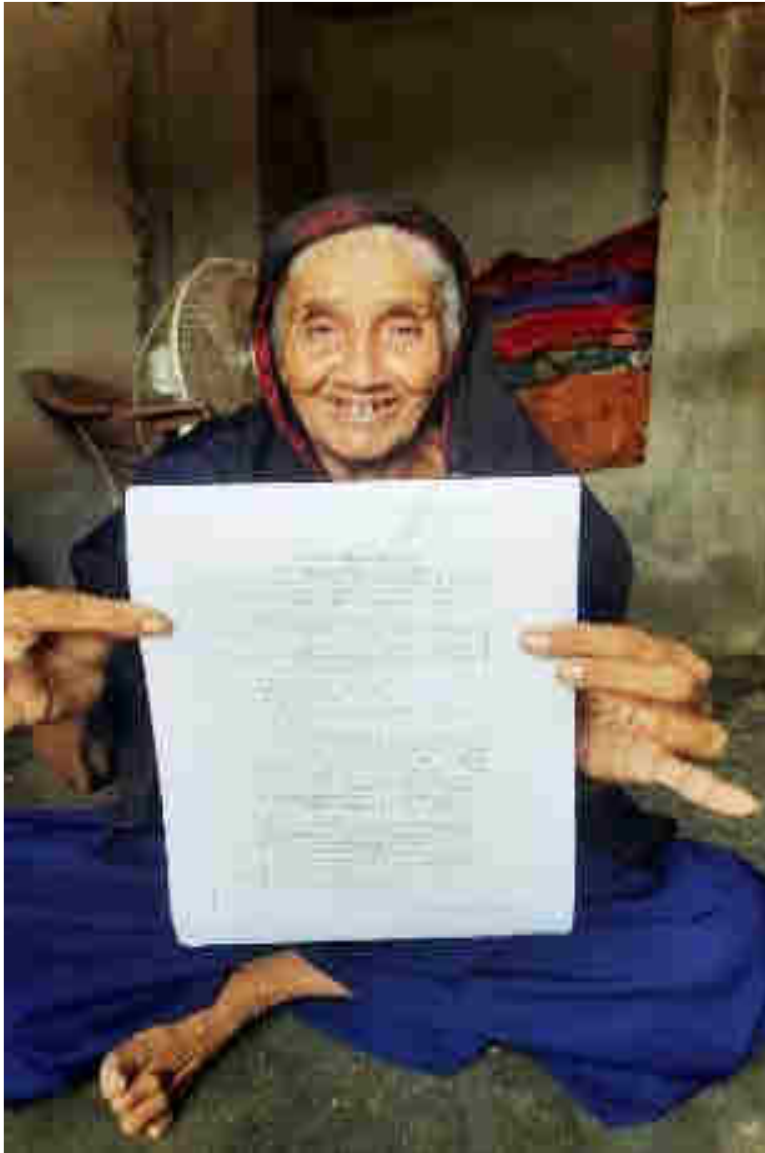
Community Resource Center (SDG 3)

Community resource center is the bridge between Government Schemes and real Beneficiaries. It is situated at Adani Field Office, Baroi with the motive to be Single window point solution (Online Application & Documentation) to Facilitate Government Schemes leveraged to needy and Eligible people.

- ✓ Listed out the Widow ,Senior Citizens ,Handicapped & Orphan Child from seven Utthan villages and linkages accordingly with the Social Defense Department Scheme,. 276 people are Facilitated in coordination with Bhuj Samaj Suraksha Khata.
- ✓ With a slogan "Beti Bachavo – Beti Padhavo" to ensure better future for Girl child education by Linking 1001 Girl child with Government "Sukanya Samrudhhi Yojna" & Vahali Dikri Yojna.
- ✓ 48 SC Farmers were Linked Kitchen Garden Scheme.
- ✓ To avail Fishermen Government scheme (Fishermen Credit card) one day program was arranged with social distancing and all precaution.
- ✓ 30 KCC form fill-up at Navinal. Created awareness with Telephonic about same



Project Swavlamban



Project Swavlamban Launched for linkages of differently abled people of Kutchh District to Social Welfare Department. Foundation is playing supporting role to increase awareness and tie up with Government schemes for Divyang people, widows and senior citizens and coordinate them with Social Welfare Department.

The identity cards - UDID are issued for the handicapped in coordination with Bhuj Samaj Suraksha Khata which is beneficial for them to get specific kit for their disability type.

After getting income generation equipment support - Proper training provision is given to make them self-reliant in true sense!!

Till date Total 1057 beneficiaries have been linked up with various government schemes and 519 beneficiaries have been supported through various schemes of income generation.

Total 1576 beneficiaries have been benefited and get support of Rs.24,12,550/- through Government and Adani Foundation.

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Adani Skill Development Centre



India has highest population of the youth yet there has always been a major issue of increasing unemployment on one side and non-availability of skilled professionals for industries.

Adani Group has initiated Adani Skill Development Center model with broad and long term vision to enhance employability of youth and getting right people at the right place of skilled requirement.

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.

Several miscellaneous industries exist in Kutch district. Adani Skill Development Centre has started a center in Mundra and Bhuj block so that the needs of these industries are fulfilled.

Admission for the F.Y. of 2020-21

Bhuj

Free Training
Model

General Duty Assistant	Basic Functional English	Digital Literacy	Entrepreneurship Skills	Financial Literacy	Mud Work	GST with Tally
0	185	25	0	0	0	40
140	3	47	1	2	4	18
0	0	2	0	5	0	12

Mundra

Basic Functional English	Basic Home Health Care	Beauty Therapist	Business Training (MS-Office)	Digital Literacy	Financial Literacy	General Duty Assistant	Marketing Skill	Mud Work	Non Domain Skills	GST with Tally	Training Skill
43	12	00	66	57	07	04	11	00	03	00	15
07	00	56	00	20	00	13	00	73	00	05	00

Placement Details

ASDC imparted various soft skilled and technical training to make Atma Nirbhar India.

Total 47 youth have been placed in various company and 37 youth are been self employed.

Bhuj

Trade	Total Trained
General Duty Assistant	51
Basic Functional English	79
Digital Literacy	61
Entrepreneurship Skills	1
Financial Literacy	2
Mud Work	4
GST with Tally	16
Total	214

Mundra

Trade	Total Trained
Basic Functional English	50
Basic Home Health Care	12
Beauty Therapist	52
Business Training (MS-Office)	66
Digital Literacy	77
Financial Literacy	7
General Duty Assistant	13
GST with TALLY	9
Marketing Skill	11
Mud Work	73
Non Domain Skills	3
Pedicurist and Manicurist	4
Training Skill	15
TOTAL	392



E-Learning Training at Bhuj



In this type of pandemic we have started virtually training on various trades like General Duty Assistant, Digital Literacy, GST with Tally, Basic Functional English etc. On Saksham Day we started E-learning training of Digital Literacy & Basic Functional English on free bases.

Till date we admitted 221 candidates in domain courses and 263 candidates in non-domain courses.

Now we started offline training with following all Covid-19 related guidelines.



The students of DDU-GKY (GDA) creating awareness regarding Covid-19 in their own village through various activity



Meeting at Palara Jail and after that meeting we did skill survey of around 150 prisoners.

MoU signing ceremony was arranged by **Krantiguru Shyamji Krishna Verma Kachchh University** on 11th January, 2021. In this project we will provide training in 4 courses (General Duty Assistant, Digital Literacy, GST with Tally & Financial Literacy).

MoU signing ceremony was arranged by **The Takshshila Educational & Charitable Trust - Bhuj** on 06th March, 2021. In this project we will provide training in 7 courses (Entrepreneurship skills, Non Domain employability skills, Diet & Nutrition, First aid, Digital Literacy, GST with Tally & Financial Literacy).



Arranged interview of DDU-GKY GDA students at Sterling Hospital – Gandhidham, GAIMS (Sodexo), Chanakya College, Accord Hospital, Fire Academy. 39 students get placement in GAIMS (sodexo), Alilance Hospital, Shreeji Hospital, Bhuj Fire Academy, Divine Hospital etc. 3 students are working in COVID-19 Hospital



online beauty therapist course has been conducted by
ASDC Mundra



Online mudwork training has been organized by ASDC Mundra,
after training 28 students became self employed.

Soft skill training for Fishermen youth & Industrial Employer meet



Organized industrial employer meet at Adani House with support by Adani foundation team. And conformed Vacancy details in respective Company. After that ASDC mundra team and Adani foundation jointly given 3 days soft skill training for Fisherman youth. The main objective of this training are to provide alternate livelihood to Fisherman community group specially those youth who are 10th -12th, ITI, diploma and graduates.

CSR Nakhatrana



Adani Green Energy(MP) (AGEMPL) set –up approx. 1250 windmill from Dayapar to Nakhtrana in Kutch (Gujarat). And as the part of our corporate social responsibility adani foundation have started various intervention for the holistic development of community since 2019 in the Ratalita , Amara, Deshalpar ,Jinjay, Dhamay & Ugedi Villages with Community Involvement by means Participatory Rural appraisal (PRA), and VDC (Unnati manch) formation to identified real need and extended our arm to render Education , Health , Livelihood and community infrastructure facilities.

Water through construction with 10 KL capacity in the barred land to avail drinking water for domestic cattle and wild animal at Ugedi & Deshkapar Villages.

Urinary Block Construction in the Ugedi village to keep Swachh Villages swachh and to provide privacy for women

Swachh Village Cleanliness is the beauty of village and to inculcate the habit to keep villages swachh and clean. 100 Dustbin were provided to 8 Villages of Nakhtrana which are been kept at Public places and maintain and monitoring by GP

Sitting arrangement with Benches and tree plantation around the cricket ground of Kotda madh villag with tree Guard.

Uakdo distribution it is been said that Prevention is the better than care hence to mitigate the ill effect of covid-19 we organized Ayurvedic Kwadh & Immunity booster medicines distribution camp in the Nakhtrana city. And aware to take precautionary care.

Adani Foundation Kutch

Total 500 people were benifitted with the same.

Event

- **World Environment Day** Celebration on 5th June and **Van Mahotsav week celebration** in Ugedi village with awareness and tree planation Program.
- **Women day celebration** on 8th march with Collaboration of ICDS Department in the Ugedi Village . On this occasion Elocution competition were held on the topic of women empowerment and women right among primary students and winner were felicitated with memento prize. More than 60 Women were remain present and motivated and Encouraged .
- **Tree Plantation** have been done in the Ratadiya and Deshalpar villages with tree guard with sensitization about the important of trees and responsibility for watering and caring of trees.

Lakhpat : Tree plantation with awareness at Kapurashi & Koriyani village of Lakhpat Taluka. Adani Foundation had also provided 150 cages.



CSR Nakhatrana

Setu

we are acting as the bridge between Beneficiaries and Government to facilitate government welfare scheme. due to this effort 82 widow women are getting widow pension of rs.1250 per month which is worth for them.

Swavlamban

Adani foundation provide tool & Kits support to Physically disable person the main objective of the program is to made them self sustain and "Atma Nirbhar" We are supporting various Tool & Kits to various Villages

Swavlamban Support To Disable Person								
Sr. No	Village Name	Sewing Machine	Cabin Shop	Flour Mill	Wheel chair	Trycycle	Hand Cart	Total
1	Dahmay	1						1
2	Aamara	4		1			1	6
3	Jinjay	2		1	1			4
4	Deshalpar	1	1					2
5	Ugedi	1	3		1	1	1	7
6	Ratadiya		3					3
Total		9	7	2	2	1	2	23

Sr. No	Scheme	Beneficiaries
1	Widow Pension	82
2	Bus pass	5
3	Wheel Cahir	2
4	Panchar Kit	1
Total		91



CSR Nakhtrana

Semi arid climate with very scanty rain fall does not support extensive and water intensive agriculture in the nakhtrana region .

more ever Farmer are not aware about modern agri technology adani foundation have started some intervention for the integrated agriculture development .

Kitchen Garden Kit

To promote the horticulture farming practices farmers are provided with Kitchen garden kit with twelve type if Vegetables , fertilizers and plastic carret.

Promote for Vegetable farming with structure support i.E Bamboo ,wire and cement Pole support to set up structure for vegetable support and grow.

Sr.	Village Name	Kitchen Garden Farmers	Vela Vala Farming
1	Ugedi	8	3
2	Ratadiya	8	
3	Aamara	7	
4	Deshalpar	10	2
5	Jinjay	7	
Total		40	5

Organic Farming training

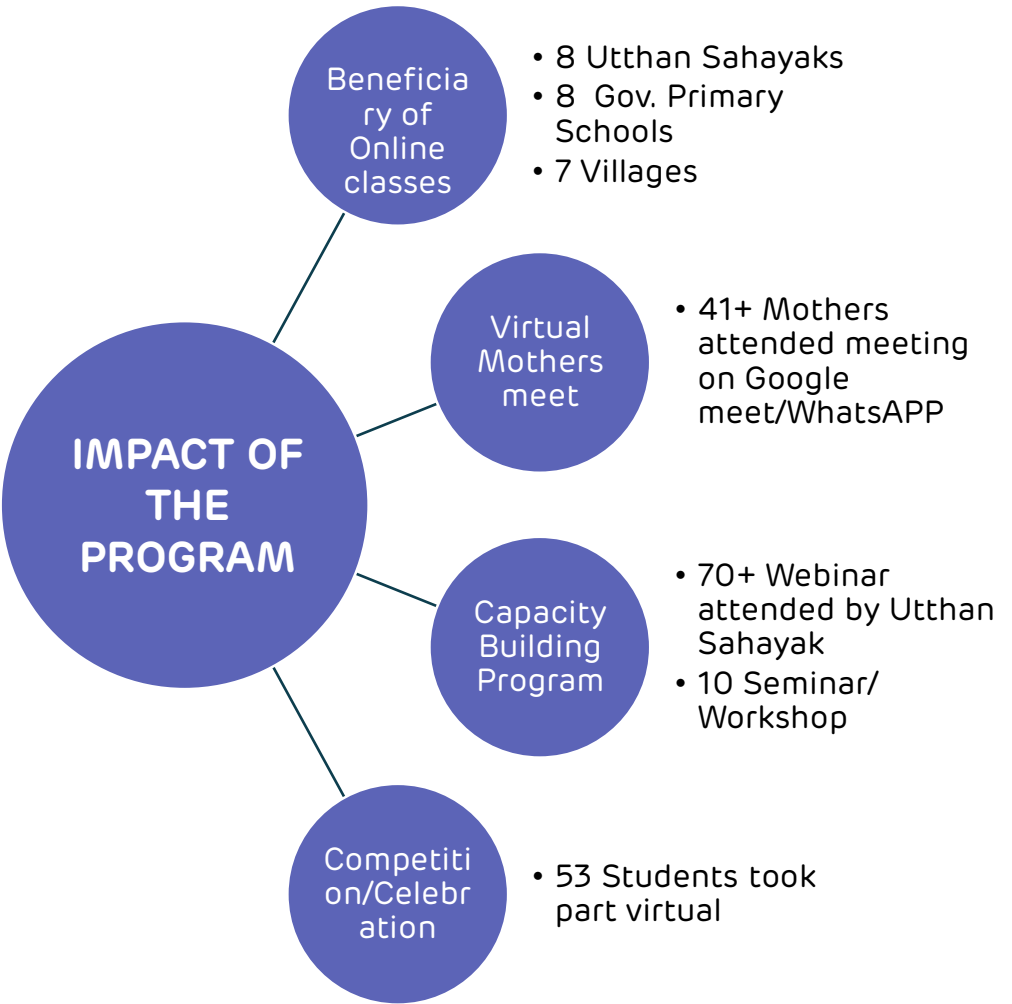
To aware about the ill Effect of pesticides and chemical fertilizer in farming and promote toward organic farming training was organized at Deshalpar with hand on training for Jivamrut preparation.Total 38 Farmers were participated

Modified Dev-6 wheat seed Distribution to two farmer of Deshalpar and Ugedi Village as demonstration which resulted that it produce High yield with less irrigation comparatively.



Utthan Nakhtrana

Large-scale efforts have been made by the government and non-government sectors, especially in rural government primary schools, but coverage and quality of education are still not satisfactory. Adani Foundation leveraging their experience, to intervene in Government Schools. These interventions will aim to enhance the quality of primary education in Government schools. Under Project UTTHAN 8 primary government schools of Nakhtrana Taluka of Kutch district have been adopted to take up various initiatives aimed to improving quality of education these schools. Total 234 priya vidyarthi are benefiting from a meaningful education in these schools. .



Year	No's of School	No's of village	No's of Girl	No's of Boys	Total
2019-20	8	7	560	590	1150
2020-21	8	7	593	570	1163



CSR Nakhtrana

Environment and bio diversity conservation is always been the prime responsibility of Adani Foundation. With this objective we started such work in Ugedi village near Nakhtrana to develop Ecological green belt to attract major faunal group such as amphibians, reptiles, birds, butterflies and mammals and restoration of native vegetation to improve overall ecological food web of landscape.

This work has been entrusted to Sahajivan, an expert organization for the protection and conservation of biodiversity as part of which following work have been carried out.

- BMC –Bio diversity conservation committee has been formed in Ugedi Village.
- Habitation Improvement by removed "***PROSOPIS JULIFLORA***"- **Ganda Bavar** from 8-10 hectare and native tree seed has been sprinkled. As well as in the garden of Ugedi village and in the place of Angalwadi, trees have been planted. Also, in the seam land seam area of Ugedi village, more than 300 native trees have been planted like Desi baval (*Acacia nilotica*), Mithi Jar (*Salvadora oleoides*), Liyar (*Cordia sp.*) and Gugal (*Commiphora wightii*) Pilu, Khejari, have been planted.
- Improvement of Catchment : approx. 750 cubic meter excavation and embankment in sloping ground to increase catchment area of open pond to support existing Vegetation and other Biodiversity
- Three species **1. Bird - Peacock 2. reptile-Spiny tailed lizard 3. mammal-Chinkara** are selected for Conservation
- Started awareness program with pamphlet, Leaflet and IEC Material distribution in the Villages and School to sensitize about their importance to maintain ecosystem and Bio diversity.



CSR Tuna



Adani Kandla Bulk Terminal Pvt. Ltd. is joint venture of Adani Ports and SEZ Limited as well as Kandla Port. There are three Villages & Two Fishermen Vasahat where Adani Foundation Doing various CSR activities in the Education, Health , SLD and Community Infrastructure area. Adani Foundation are running Rural Clinics in 3 villages on regular basis and supporting the villages in water storage and distribution networks. Current year supported for Drainage network for Tuna and Wandi as per MOU between Pandit Dindayal Trust and Adani Foundation

Drainage work

As per MOU between Dindayal Port Trust and Adani Foundation – Contribution of Rs. 40 Lacs for Drainage Facility Provision in Tuna and Wandri Village was taken up and work will be completed upto June 2021

Water facility

To reduce water born disease, we are providing portable drinking water facility at Dhavalvaro bandar and Vira bandar.

Ration kit support

During covid -19 pandemic & lock down directly and adversely affect over Poor and vulnerable families whose are sustain daily wages work. We Distributed Ration kit to those people with aware to take precautionary measures as well. Total 1100 Ration Kits were distributed to Tuna Rampar and Vandi Villages

Tree plantation

Tree plantation has been carried out at Tuna, Vandi & Rampar village and

Garden development work has been done at Rampar primary school which would create healthy environment and entertainment over students.

Fodder support

in Rampar and Tuna village 47950kg dry fodder and 335730kg fodder has been supported during this year.

Rural Clinics

Rural Clinics 2 hours per day are operated by Adani Foundation to ensure primary health at door step. Total OPD is @ 350 per month.



CSR Bitta



Under Adani Solar Limited – 40 MW Solar Panel Power Unit is Situated at Bitta Village in Abdasa Taluka. We have done various activity under the CSR work.

As Abdasa is water scared region with list amount of rain Fodder support had been provided to 100 ton fodder to Bitta, Dhrufi and Moti Dhrufi villages.

Cleanliness of village Pond inlet in the Bita Village which lead more storage capacity and Village. Pond bunding construction in Dhufi village.

Cricket ground of bitta village has been upgraded and cricket kit provided to youth.

Panchayat Building construction was carried out by Adani Foundation's support and technical guidance.

Drainage line maintenance and Cleanliness is frequently done in Bita which lead Swachh Village

EVP

Employee Volunteering program

Since last few years adani group employees are adopting students of migrant labours. this year also all the 802 students of Vallabh vidhalaya were adopted. All this students are belongs to migrants labour families who are working in various industries in and around of Mundra. The students does not feet any difficulty of language because the vallabh vidhalaya is Hindi medium school.

On 1st may i.e. on the world labour day, all the cheques of rs.16.04 lacs had been handed over to Mr. Dharmendra who is the director of vallabh vidhalaya

Due to COVID-19, the 10th standards students of AVMB felt difficulties in study as they do not have any digital gadget for online learning. Our APSEZ Employee had been voluntary support to provide Lenova tablet to the AVMB Students.



WORK DURING COVID-19

To fight against the COVID19, Adani foundation has stepped up to guard the health and well-being of rural communities, provide relief material to needy.

Chemical sanitization was carried in various villages of Mundra with the coordination of Fire Department APSEZ. With coordination of Port, Wilmar and Foundation free cost food facility (Breakfast, Lunch and Dinner) in port & SEZ premises and AWL area.

24

Sanitization work in villages

1900

Daily Food Facility (Breakfast, Lunch, Diner) for 1900 Labour per day

5500

ration kit support to needy people (Specially Fisherman, daily wedge workers, widows and senior citizen).

105000

Mask prepared by women SHG for Government officers / staff of SDM, ICDS, TDO, Custom, THO, Police Dept. etc.



WORK DURING COVID-19

Providing treatment is prime thing in case if any outbreak but making people aware about safety n self quarantine plus to handle the panic situation. Our mobile health care unit had provided primary treatment to community at door step and also created awareness. In this panic situation Adani Hospital Mundra had continue his IPD and OPD services. SuPoshan Sanginis led awareness drives for conveying correct hand washing techniques, importance of sanitization. They also visited pregnant women and counselling regularly. 'Awaz De' a voice message campaign was started in local kutchi language to make the people aware on COVID-19.

158

Taken care of Senior citizens at old age home

-

Awareness drives by SuPoshan Sanginis

-

Mobile health care unit provides Primary treatment at doorstep

35000

'Awaz De' a voice message campaign in local Kutchi language



Our Change Makers



In critical time of Corona, Medical Officer Dr. Deven Goswami, Dr. Narendra Dodiya and Dr. Mukesh Parmar has performed their duties at GKGH Hospital for 1.5 month period.



My Mother's dream became true

Name: Mura Keshabhai Dhuva

Place: Khavda, Bhuj, Kutch, Gujarat

Employer: Alliance Hospital (Covid 19 hospital), Mundra, Kutch, Gujarat.

Job: Joined as Nursing Assistant.

Salary: Rs. Up to 9000/- per month with lodging and boarding facilities.

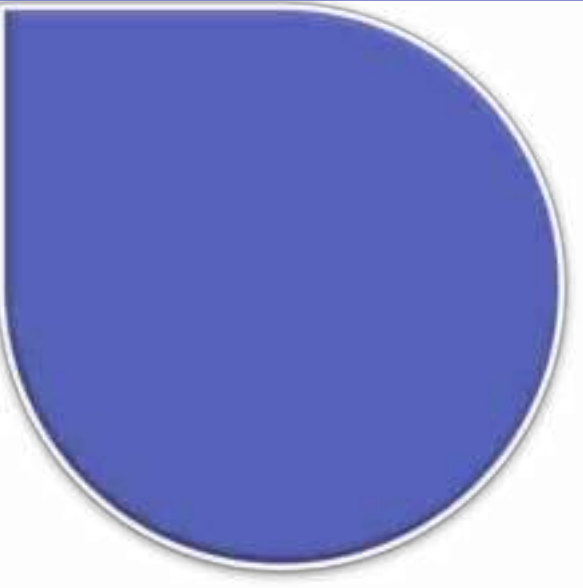
Candidate Brief:

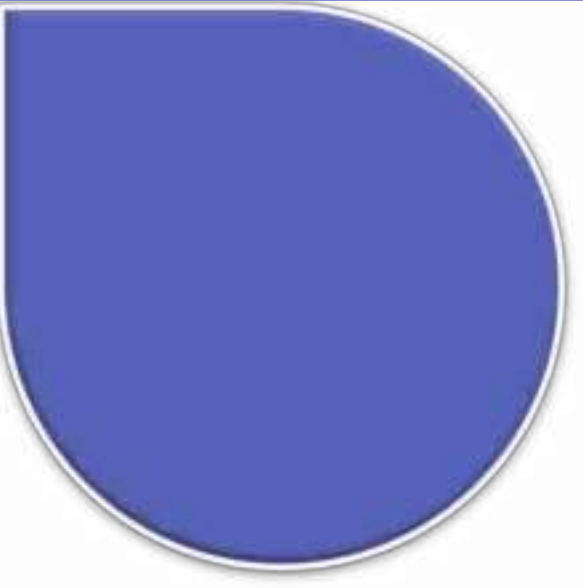
He belongs to rural family. Father is Carpenter and mother is Home maker. Parental household's monthly income prior to his placement was Rs.8, 000. His prior educational qualifications is 12th pass.

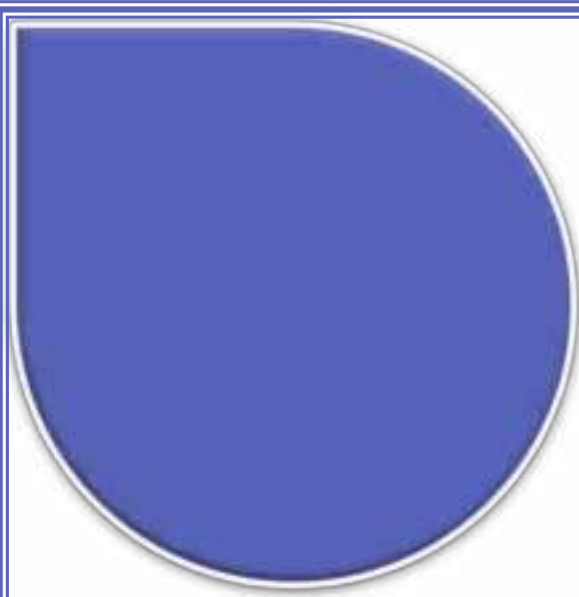
In his own words:

My mother's dream is that one of the sons should be in medical field. But due to financial constraint, I couldn't study further. I thought I will never be able to fulfill my mother's dream but fortunately, I got opportunity to get trained under GDA course and soon after its completion, I got placement in hospital. I feel proud to serve Covid19 patients and will continue doing fearlessly.

Thanks to Adani Skill Development Centre to give me opportunity to take training under DDU-GKY scheme and make me capable to take care of my family.







Dhanuba a self-esteem lady from Zarpara Village .While I peeped in her life it seems like that her existence is only to bear grief and sadness .Her husband was passed away before 20 Years since that she has been eduring social and economic responsibility of her family by drudgery daily wages. She have two daughter who are married and two sons who are supporting her for daily end meet ,day was passed little more good combativelyWho knows it was for short times

Unfortunately one more shock in her life that her elder son get Heart attack and passed away & younger son got mentally ill again she have to drudgery to get them daily bread and butter... Though her daughters called her to lives with them but she denied strongly believed to don't be burden & belongs to daughter. Now she is 70 years old and physically weak and also get illled often.

One day she came to our Rural clinc for medical check-up and was talking with deep sigh & despair about her problem. Fortunately our Employee Mr. Karsanbhai was present at their and promptly talked with her and comprehend the reality. She could not availed benefit of widow pension scheme because of the certain government limitation even after numbers of time applied and Follow-up for the same. He went along with her and Collected the essential document and submitted to the respective department later within two month she received sanction order for the same and further Rs.1250 /- Widow pension has been started which been the great support for daily meet.

She and her daughters expressed great gratitude and said that Adani Foundation is hope For the Poor and needy persons.



“Vidyadan Mahadan”

Back Ground : He belongs to Poor Fishermen family and sincere to study since child hood. He belongs to Poor Fishermen family and sincere to study since child hood. His father is used to Pagadiya fishing practice to get the daily end meet.

In his own words:

In our community most of the youth left study after 8th standard and engaged in Fishing practice but when I had interacted with AF staff and persuaded for further study and Scholarship support. I realized that the only education can be the game changer to strengthen my Financial condition. Later I focused to study Intentionally and dreamed to be Lawyer.

Now am working with Advocate as Assistance and do Financially support to my family.

Indeed AF sensitized me and act as catalyst to transform my life than others really I am honored by friends and Society

Real Support

Name: Harkhumben hirabhai Rabari

Place: Jinjauu, Nakhtrana

AF intervention:- Sewing Machine Support.

Progress & Achievement:- Started Embroidery and sewing work

Income : Rs.2500 to 3000/Month



Sea of Change – I can !!

Manjaliya Jakum Osman is 36 years old Fishermen Youth though he was little dull in study but has insight sense and dedication to work. After completion of primary education he had been engaged in fishing practice with his father. Though he was earning but not enough to sustain his big family with Five Daughters .


He was always thinking to get hike and asking to provide work according to his skill like drivering ,electrician and painting work.

One day we offer him contract work in our dry cargo department for loading Unloading work. He started enthusiastically with 30 Labors teams and paid 100% Efforts to fetch the targets but.....Unfortunately he had to left contract due to some constrain.

Again he engaged in fishing as routine but destiny define another for him. we had called From APSEZ to need Casual labors and referenced for Jakum as having Good feedback for dedication toward work.

he accepted opportunity even did not know the process. Initially We supported for gate pass and other mandatory formalities. Currently 22 Fishermen youth are working under him. He is saying that I am earning Approx Rs.40000/Month. And massage to Fishermen youth that I am grateful to AF to provide chance to proof my self and sustaining well. now I can Fulfill all basic amenities and invest to my daughter education.

He message to Fishermen Youth that we have great Opportunity as having ADANI port and companies to get employed.



Life without parents is like boat in the mid of the ocean without compass , Krishna was cute and beloved girl of her family. Though her parents was labour but had been grew with lots of love & fulfilled all her wishes. But who knows the destiny ,when she was 8th year old she lost her father due to heart attack. yet she get back from the shocked, her mother got remarried which pushed her in the sorrow of ocean.

she is from Siracha village & studying in 5th standard. However her uncle and aunty are looking after her fostering with all possibility, she is but since they are poor, the financial constrain cant allow them to do much more even they wish. One day when our Employee Mr. Karshanbhai Gadhvi knew about its , he met them and get review from the village leader about the reality ,They are really poor and has been taking care of Krishna with soft intend & Love. Later we informed them about the Government scheme and did all the necessary documentation to linked with Government Orphan Yojna. Now they are being facilitated with Rs.3000 pension /Month which they deposit in Krishna bank Account to invest for their Education and wish to made her Officer now Krishna s future is secured...

Events

World Environment Day

World Environment Day was celebrated in Four Talukas by different activities related to conservation of Environment. The events were organized with coordination of Sarpanch, village leader and village committee members and difference type of activity had been carried out in this events.

Activity

- Mangrove Plantation at Luni sea coast with fisher folk community
- Tree Plantation at Mundra, Nakhtrana, Lakhpat & Tuna block.
- Inauguration of Gauchar land development work in 22 acres at Siracha village
- Tissue culture plant distribution to farmer
- 1500 herbal plants like meshvak, amla, galo, gugal, arduisi, pilu, etc planted at Nandi Sarovar biodiversity park



World Mangrove day



Web talk show was organized on the occasion of "World Mangrove days On Multi species Mangrove bio diversity with Joint effort of Guide and Adani Foundation, mundra.

Dr.V.Vijayan Kumara (Director of Gujarat institute of Desert ecology) , Mr. C.R.K Reddy (Former chief scientist ,CSIR-CSMCRI CEO) and Respected PNR sir and Gadhvi sir had delivered occasionally speech. As well as Paper presentation by GUIDE and with KSKV Scientist . Total 70 participated had joint this webinar.

Vanmhotsav



Vanmahotsav week had been celebrated by adani foundation. The main objective of the vanmahotsav is to promote forest conservation the tree plantation.

More than 4100 tree plantation activity had been carried out in Tunda, Siracha, navinal , Zarpara, Dharb, baroi, luni, samgoga, Nani bhujapar, moti bhujapar, Mota bhadiya, Gundiyali , Anjar, tuna, rampar and wandi villages of Mundra & Anjar.

World ocean day



8th June is celebrated as world ocean day. adani foundation had celebrated the world ocean day by coastal cleaning activity at Juna Bandar, Luni Bandar and Bavadi Bandar.

More than 105 Fisherman took part in this activities with great enthusiasm and zeal. Adani Foundation has scheduled awareness of coastal biodiversity, No fishing in monsoon period and conserving mangroves by allege removal and sweet water usage in initial period.

National Youth Day



The National youth day was celebrated by motivation the youth who had play significant role during corona period as a warier in various sector and society.

On the occasion Mr.Sharad Sharma –AWL plant head and Mr. Vijay Saxena –HR head MUPL were remain present and delivered speech accordingly.

17 youth (3 utthan sahayak, 4 fishermen youth, 3 corona warriors, 7 women - animal husbandry & gram rakshak dal) were appreciated.

International Women's day



Adani foundation and Britannia had jointly celebrated women's day on 10th March 2021 in which Guest of honour was Pabiben Rabari Entrepreneur Kutchh. 283 women are working at Britannia and preparing biscuit and rusk. Adani foundation is supporting for sourcing, motivation training for them and on job training plus convincing of families of women for shift duties also. Pabi ben had given information about her life journey and struggle and congratulated women for their joining the work. Dr Punam has informed about how to stay mentally and physically healthy plus maintain hygiene. Felicitation of 25 women by Medal who become permanent in Britannia company. Five Women shared their journey of life.

The National girl child day



Women are the epitome of strength, Love, sacrifice and courage. and In the fast growing world women role is more important for the Socio, Economical & political development of Family, Nation and world. The National girl child day was celebrated with ICDC Department with Vahli Dikri Yojna form filling, paediatric health camp and Baby health kit distribution at Mundra. Mrs. Ashaben - CDPO Mundra was remain present in this event. Total 61 forms has received approval letter from GOG and 15 forms filled up on the same day.

Ayurvedik Ukalo Distribution



Covid-19 pandemic is at the peak level and while don't having Specific treatment and vaccine taking precautionary measure and immunity boosting is the only weapon to keep away our self from Covid-19.

We have started Ayurvedic Kwadh Distribution at Various Public spot, Our Port Entry & Exit gate and APL ,AKBTPT una with spreading awareness to mitigate rapid transition to combat against covid -19. More than 6500 people had benefitted with Ukado and Vitamin –C tablet from Mundra, Baroi Shanti van & Samudr township.

World Water day



Adani Foundation Mundra & Nakhtrana had Jointly celebrated World water Day with WASMO. Mr. R J Sonkesariya - SE irrigation dept., Ms. Dimpleben Shah - District coordinator WASMO were remain present in this event. Innovative farmer Mr.Vadilal Pokar had shared his experiance and value of drip and borewell recharge activity. more then 125 farmers of Mundra and Nakhtrana block took part in this event. To understan the value of water, drawing competition on the theme of valuing water had been organized for utthan school students.

World Disability Day

The people who living with disability, face many barriers to inclusion into key aspects of society, God blessed them with some kind of limitations with other kind of skill. Disability brings different ability.

We had celebrated world disability day on 3rd Dec with the aim to empowerment and help them to create real opportunity to make them self sustain.

In Mundra, Bitra, Tuna, Anjar, Nakhtrana, Lakhpata, Bhuj & Khavda blocks of Kutch district, total 40 people were benefitted with various Tool and Machine. The District Social Welfare Officer had issued appreciation letter for our efforts. All Divyang of kutchh, have been assured to support for Government online application to facilitate Aid & Equipment well as divvyng certificate and bus pass.



Awards

Adani Port and Special Economic zone ,Mundra has been awarded with 2nd prize for the National water Award from the Government of India Ministry Of Jal Shakti for the best industry for CSR Activity Category. and got cash Prize of Rs.1.5 lacs.



Awards

There was state level QCFl Award competition for (HR and CSR activity) We participated with our Namda work revival project though virtual presentation. we received diamond award.



Beneficiaries data

No	Core Area	Direct Beneficiaries	Indirect Beneficiaries	Remarks
1	Education	2098	9424	Utthan 17 Schools
2	Adani Vidhya Mandir	472	1888	AVMB ,Students
3	Community Health Mundra	19196	212969	MHCU, Rural Clinic, Senior Citizen, Health camp,
4	Community Health, Bhuj	5870	23480	Medical Support , Mahiti setu, Dead Body , Patients Care & Co-ordination
5	AHMPUL	20959	62877	OPD & IPD Patinets
6	SLD Fishermen	8035	2330	Education, Mangrove, Water and Livelihood
7	SLD –Agriculture	21190	2991	Drip, Fodder, Home Bio Gas, Tissue ,
	SLD- Women Empowerment	127	508	SHG Group Income generation & Training
8	CRC	1079	4316	Sukanya Samrudhi Yojna, Agriculture ,Fishermen,
10	Swavlamban	276	1072	(Widow women & Divyang)
11	Community Infra Structure	111855	162488	Fishermen Amenities & Shelter ,Pond Deepening, Approach
12	Nakhtrana	18528	8168	Health ,SLD, Bio Diversity & CID
13	Tuna	6717	20151	Fodder, Health & portable water
14	Lakhpat	2956	1380	Tree Plantation & Tree Guard
15	Suposhan	20565	0	Child ,Adolescent Girl ,RPA Women
16	ASDC Bhu & Mundra	577	1432	soft skill and DL .GDA & Online Training
Total		240500	515474	

Financial Overview - Adani Foundation -Mundra

Executive Summary-Budget Utilization F.Y. 2020-201

(Rs. In Lacs)

Sr. No.	Budget Line Item	Budget 2020-21	Total LE 2020-21	% of Total Utilization
A.	Admin Expense	61.10	56.96	93.28%
B.	Education	94.56	57.87	61.20%
B1	Utthan-Education -Mundra & Anjar	64.11	52.05	81.19%
B2	Utthan : Fisherfolk	30.45	5.82	19.12%
C.	Community Health	420.70	325.12	77.28%
D.	Sustainable Livelihood Development	365.00	336.62	92.23%
E.	Community Infrastructure Development	58.30	60.13	103.14%
F.	EDM Recommended Projects	60.00	60.00	100.00%
G.	COVID 19 Support	100.00	27.05	27.05%
H *	Budget taken against Saving			
1	Wandi – Tuna Drainage Support		45.40	
2	Support to Dhrub Hospital-Dhrub		22.00	
3	Approach Road Construction at Prasla Vadi, Zarpara		16.00	
4	Participation in Gaushala Construction at Goyersama		10.25	
	Total Budget plan against Saving:		93.65	
	Total AF CSR Budget :	1,159.66	1017.41	87.73%
[I]	Adani Vidya Mandir-Bhadreshwar	219.67	104.74	47.68%
[II]	Project Udaan-Mundra	50.00	49.30	98.61%
	GRAND TOTAL Budget F.Y. 2021-22 :	1,429.33	1,171.45	81.96%



જીવન સાથે જીવનનિર્વાહની સામર્થ્યવાન કામગીરી કરતું: અદાણી ફાઉન્ડેશન

મિત્ર સંચિકા મુદ્રા તા. ૧૨
ભારે અદાણી ફાઉન્ડેશન ૧૮
ગામડાઓમાં ૨૨૫૦ ગામડાઓમાં
જીવન સાથે જીવનનિર્વાહની સામર્થ્યવાન કામગીરી કરતું
અદાણી ફાઉન્ડેશન દ્વારા દેશના ૧૮ રાજ્યમાં ૨,૨૫૦
ગામડાઓમાં કરવામાં આવેલ લોક કલ્યાણના વિવિધ કાર્યો : મુન્દ્રા
તાલુકાના ૨૨ ગામોને સેનીટાઈઝ કરવામાં આવ્ય અસરગ્રસ્ત
પરિવારોને ૧૦,૦૦૦ જેટલી રાશન કીટનું વિતરણ

અદાણી ફાઉન્ડેશન દ્વારા દેશના ૧૮ રાજ્યમાં ૨,૨૫૦
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મુન્દ્રા અદાણી ફાઉન્ડેશન દ્વારા ફૂડ પેકેટનું વિતરણ
। મુન્દ્રા ।
મુન્દ્રા તાલુકામાં તાજેતરમાં પડેલા ભારે વરસાદના પગલે

ઉદ્ભવેલી સ્થિતિમાં અદાણી ફાઉન્ડેશન દ્વારા શહેર સમીપના ઝૂપડપટ્ટી વિસ્તારમાં પુરી, શાકના

મુંદરા બારોઢ વિસ્તારમાં વિવિધ સંસ્થાઓના સહયોગથી જન જાગૃતિ આરોગ્ય સમાહની ઉજવણી કરવામાં આવી



મુન્દ્રા તાલુકાના ૮ ગામોના ૩૪ ખેડૂતોને બારેકના ટીસ્યુક્લર રોપાઓનું વિતરણ કરાયું

મુન્દ્રા : તાલુકાના જુદા જુદા ૮ ગામોમાં બારેક સંમિત મુન્દ્રા અને અદાણી ફાઉન્ડેશનના સંયુક્ત પ્રયત્નોથી બારેક ગામના ખેડૂતોને જરૂરી વસ્તુર મળે એ હેતુસરે બારેકના ટીસ્યુક્લર રોપાઓનું ૩૪ ખેડૂતોને વિતરણ કરવામાં આવ્યું હતું, તો બીજા તરફ મેન્દ્રાના આ પ્રિન્સિપલની બજાર વ્યવસ્થા માટે કમ્પ્લેક્સ - કમ્પલેક્સ પ્રોજેક્ટ કંપની બનાવવાની કમ્પ્યુટરી સુરક્ષા

ખારેક, દાઢમ અને કરોના ગોડાંગ, ક્લીનિંગ અને પોકિંગ માટે ખાસ વ્યવસ્થા ઉભી કરાયો
મુંદરાના ૧૧ ગામોના ખેડૂતોના ઉત્થાન માટે 'કચ્છ કલ્પતરૂ પ્રોડ્યુસર કંપની લિ.' એગ્રોમોલ બનાવશે !



● સદાણી ફાઉન્ડેશનનો સહયોગ અને ડાહ્યા સમિતિથી થકી ઘરેલીપુત્રોને કૃષિ ક્ષેત્રે મળે
● સોલ્ટોબરના સંત સુધીમાં ૨૦૦ સત્તાસદો

કચ્છ ભાસ્કર ૩૦-૦૫-૨૦૨૦

માસિક એ કુદરતી પ્રક્રિયા હોવાથી તેનાથી આભડછેટ ન રાખો
કુદરતી પ્રક્રિયા હોવાથી તેનાથી આભડછેટ ન રાખો



અદાણી ફાઉન્ડેશને મુંદરાના વલ્લભ વિદ્યાલયનાં ૮૦૦ બાળકને દત્તક લીધાં



મુણીમાં સમુદ્ર સફાઈ અભિયાન હાથ

મુણીમાં સમુદ્ર સફાઈ અભિયાન હાથ

ભુજપુર આસપાસ રડ લાખના ખર્ચે વિવિધ વિકાસકામો સંપન્ન : ખાનગી કંપનીનો સહયોગ

ભુજપુર આસપાસ રડ લાખના ખર્ચે વિવિધ વિકાસકામો સંપન્ન : ખાનગી કંપનીનો સહયોગ

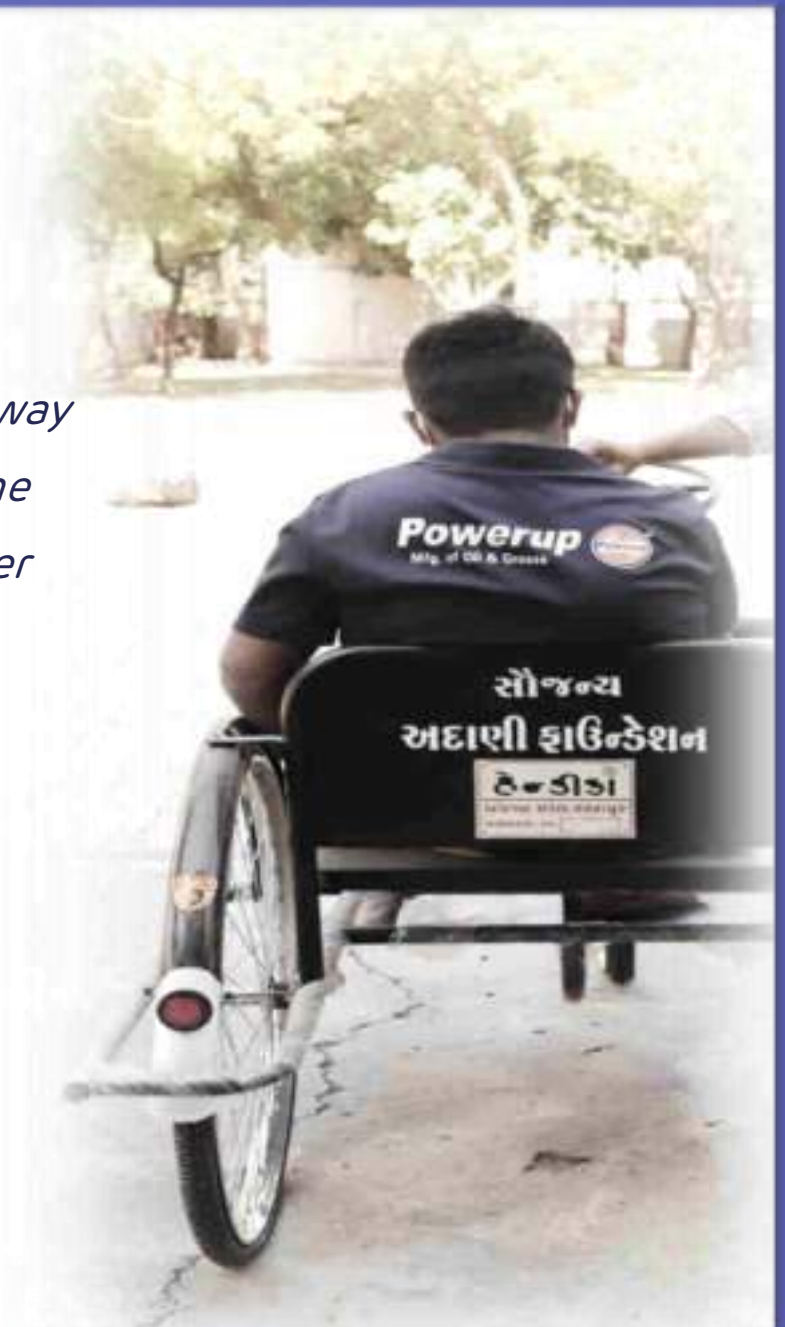


ભુજપુર આસપાસ રડ લાખના ખર્ચે વિવિધ વિકાસકામો સંપન્ન : ખાનગી કંપનીનો સહયોગ

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*Disability brings different ability, it bring hope in different way
let us pray the God to give confidence and strength to the
person who are having some kind of limitations with other
kind of skill*

Thank You...



Annexure – 5

डॉ. एम. सुरेश कुमार /Dr. M. Suresh Kumar
मुख्य वैज्ञानिक तथा प्रमुख/Chief Scientist & Head
प्रोफेसर एसीएसआईआर/Professor AC SRI
पर्यावरणीय प्रभाव एवं संघर्षणीय प्रभाव
Environmental Impact & Sustainability Division

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सीएसआईआर—
राष्ट्रीय
पर्यावरण
अभियांत्रिकी
अनुसंधान
संस्थान
नेहरू मार्ग
नागपुर 440 020
(भारत)

CSIR-National
Environmental
Engineering
Research
Institute
Nehru Marg
Nagpur-440 020
INDIA

No. F(X)A-AP&SEZ/CSIR-NEERI/04

Date: 10/02/2021

To,

Head-Environment.

M/s. Adani Ports and Special Economic Zone Limited,
Adani House, P.O. Box No.1,
Mundra, Kutch - 370421.

Sub: Status of SEZ Environment Clearance Compliances

Ref:

1. SEZ Environment Clearance bearing MoEF letter No. 10-138/2008-IA.III, dated 15th July, 2014 (Specific Condition No. vii)
2. SO No. 4890061050, dated: 22.10.2020
3. Site Visit dated 26.11.2020

With reference to the above stated subject and references, work has been awarded to us for studies through Environment Clearance compliance audit at Multi Product SEZ of M/s. Adani Ports & SEZ Limited, Mundra with reference to EC Specific Condition No. (vii).

Accordingly, the site visit was conducted on 26th November, 2020 and the compliance report (April 2020 - September, 2020) was reviewed by us. It was further assessed from the monitoring reports submitted to us and site visit carried out, as part of the compliance report that all the environmental norms meet the applicable standards.

It has been concluded all the conditions stipulated in Environment Clearances are being complied and there is no violation of any condition. The existing practices shall be continued in future as well to ensure meeting with the applicable norms.

With Regards,

(M. Suresh Kumar)

Annexure – 6

Details of Greenbelt Development at APSEZ, Mundra

Total Green Zone Detail Till Up to March – 2021					
LOCATION	Area (In Ha.)	Trees (Nos.)	Palm (Nos.)	Shrubs (SQM)	Lawn (SQM)
SV COLONY	71.63	34920	7962	69426.00	100646.00
PORT & NON SEZ	81.51	149192	19220	75061.78	62062.38
SEZ	116.60	227120	20489	220583.60	28162.03
MITAP	2.52	8168	33	3340.00	4036.00
WEST PORT	100.25	244112	70331	24612.00	22854.15
AGRI PARK	8.94	17244	1332	5400.00	2121.44
SOUTH PORT	14.45	27530	3470	3882.00	3327.26
Samudra Township	56.89	62522	11834	20908.89	47520.07
Productive Farming (Vadala Farm)	23.79	27976	--	--	--
TOTAL (APSEZ)	476.56	798784	134671	423214.27	270729.33
		Total Saplings: 933455 Nos.			

Details of Mangrove Afforestation done by APSEZ

Sl. no.	Location	Area (ha)	Duration	Species	Implementation agency
1	Mundra Port	24.0	-	Avicennia marina	Dr. Maity, Mangrove consultant of India
2	Mundra Port	25.0	-	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)	298.0	2011 - 2013	Avicennia marina	-
6	Jangi Village (Bhachau, Kutch)	50.0	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)	255.0	2014-15 & 2016-17	Avicennia marina & Bio diversity	GUIDE, Bhuj
9	Dandi Village (Navsari)	800.0	2006 - 2011	Avicennia marina, Rhizophora mucronata, Ceriops tagal	SAVE, Ahmedabad
10	Talaza Village (Bhavnagar)	50.0	2011-12	Avicennia marina	SAVE, Ahmedabad
11	Narmada Village (Bhavnagar)	250.0	2014 - 2015	Avicennia marina	SAVE, Ahmedabad
12	Malpur Village (Bharuch)	200.0	2012-14	Avicennia marina	SAVE, Ahmedabad
13	Kantiyajal Village (Bharuch)	50.0	2014-15	Avicennia marina	SAVE, Ahmedabad
14	Devla Village (Bharuch)	150.0	210-16	Avicennia marina	SAVE, Ahmedabad
15	Village Tala Talav (Khambhat, Anand)	100.0	2015 - 2016	Avicennia marina	SAVE, Ahmedabad
16	Village Tala Talav (Khambhat, Anand)	38.0	2015 - 2016	Avicennia marina	GEC, Gandhinagar
17	Aliya Bet, Village Katpor (Hansot, Bharuch)	62.0	2017-18	Avicennia marina & Rhizophora spp.	GEC, Gandhinagar
Total Mangrove Plantation:		2889.90 Ha			

Annexure – 7

Compliance Report of EMP & Mitigation Measures

Sr. No.	Suggested Measures	Compliance Status
Construction Phase:		
A	Air Environment	
1	Water sprinkling in vulnerable areas	Water sprinkling on road and other construction area as well as on construction materials is being carried out on regular bases.
2	Enforce proper maintenance of vehicles and construction equipment. Allowing only PUC approved vehicles in the site.	Please refer Condition No. ix of Part-B (General Conditions Construction phase) of EC and CRZ Clearance.
3	Enforce usage of covered trucks for transport of construction material.	Covered trucks are being used for handling of construction materials.
B	Noise Environment	
4	Enforce proper maintenance of vehicles and construction equipment. Enforce use of earmuffs / earplugs to workers in high noise level areas.	The vehicles of on-going construction work enter inside the premises after the fitness check. Ear protection device is provided to workers in high noise areas.
C	Water Environment	
5	Provide temporary drinking water supply and proper sanitation facilities within the site	Provision of drinking water and sanitation facility is being provided.
D	Land / Soil Environment	
6	Proper disposal of construction debris at regular intervals	Construction debris is being kept at identified temporary storage area and is being utilized for area development.
E	Thermal Environment	
7	Enforce (i) use of Portland Pozzallano Cement / (ii) use of Portland Slag Cement / (iii) use fly ash as admixture in construction	Part of fly ash generated from Adani Power Limited, Mundra is being utilized by Adani Group to manufacture paver blocks and the same paver blocks are used for development of back up area, footpath, colonies area, parking area, approach road etc. Please refer Condition No. xi of Part-B (General Conditions: Construction phase) of EC and CRZ Clearance.
F	Energy	
8	Wherever possible, piping shall be along the natural topography to permit gravity flow. Else, energy efficient	Energy efficient pumps and HDPE Pipelines are used for supply of utilities. Refer point no. xii of EC & CRZ

Sr. No.	Suggested Measures	Compliance Status
	pumps shall be used. Pipe material shall be such as to minimize friction losses.	Clearance in Part – B (Operation Phase) for energy efficient electrical fittings. Few of the buildings in MSTPL are designed as green building.
9	Wherever possible, natural light shall be used. Energy efficient electrical fittings and fixtures shall be used.	
🔧 Operation Phase:		
A	Land / Soil Environment	
1	Good quality non-corrosive type pipeline should be used. Regular checking of the pipelines for early detection of any possible leakage and damage. Regular ground water monitoring should be done within the SEZ.	HDPE pipelines are used for supply of utility. Regular visual surveillance along the utility lines corridor is being done to check leakage or damage. Third party analysis of the ground water is being carried out at every three month by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Please refer Condition No. v of Part-B (General Conditions: Construction phase) of EC and CRZ Clearance.
2	The waste should be transported in covered trucks. Vermi-composting is highly recommended for treatment and disposal of biodegradable and kitchen wastes. Other domestic solid waste (garbage) shall be disposed through MSW facility or as per prevailing norms.	Please refer Condition No. iv of Part-B (General Conditions: Construction phase) of EC and CRZ Clearance.
3	The waste should be transported in covered trucks. Transporter should be informed of remedial measures required to be taken in case of spillage of waste	Waste handling vehicles are being handled through covered trucks only. Details were submitted along with compliance report submission i.e. Apr'17 to Sep'17.
B	Socio-Economic Environment	
4	It will encourage development of surrounding areas & further generate employment. People from various cultures shall mingle encouraging a more tolerant society.	Please refer Condition No. vii of Annexure – B (Compliance Status of MoEF & CC Order dated 18.09.2015).

Annexure – 8



POLLUCON

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"HALF YEARLY ENVIRONMENTAL MONITORING REPORT"

FOR



**ADANI PORTS AND SPECIAL ECONOMIC ZONE LIMITED
TAL: MUNDRA, KUTCH, MUNDRA – 370 421**

**MONITORING PERIOD:
OCTOBER 2020 TO MARCH 2021**

PREPARED BY:



POLLUCON LABORATORIES PVT.LTD.

**PLOT NO.5/6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY,
OLD SHANTINATH SILK MILL LANE, NEAR GAYTRI FARSAN MART,
NAVJIVAN CIRCLE, UDHANA MAGDALLA ROAD, SURAT-395007.
PHONE/FAX – (+91 261) 2455 751, 2601 106, 2601 224.
E-mail: pollucon@gmail.com Web: www.polluconlab.com**

TC - 5945

ISO 9001:2015

ISO 14001:2015

ISO 45001:2018

**POLLUCON**

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Cleaner Production & Waste Minimization Facilitators

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RESULT OF AMBIENT AIR QUALITY MONITORING

WTP- NEAR CETP					
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m3	Particulate Matter (PM _{2.5}) µg/m3	Sulphur Dioxide (SO ₂) µg/m3	Oxides of Nitrogen (NO ₂) µg/m3
1	03/10/2020	68.56	29.57	26.59	42.50
2	07/10/2020	79.65	45.23	19.55	37.54
3	10/10/2020	86.30	48.31	20.60	45.32
4	14/10/2020	76.22	37.57	24.25	39.56
5	17/10/2020	69.42	32.45	21.20	33.23
6	21/10/2020	80.30	43.23	18.64	30.54
7	24/10/2020	78.56	35.28	23.41	41.28
8	28/10/2020	84.20	46.19	17.52	29.61
9	31/10/2020	75.36	42.36	15.40	35.67
10	04/11/2020	79.26	43.58	22.42	39.54
11	07/11/2020	86.52	48.24	14.21	30.24
12	11/11/2020	74.53	45.33	18.6	42.26
13	14/11/2020	69.38	34.51	21.23	33.54
14	18/11/2020	88.32	44.25	26.31	43.36
15	21/11/2020	76.28	37.5	19.28	37.53
16	25/11/2020	81.21	46.54	13.35	40.26
17	28/11/2020	71.55	29.43	15.31	34.54
18	02/12/2020	84.22	42.37	12.6	36.46
19	05/12/2020	75.26	33.47	16.24	31.23
20	09/12/2020	81.21	38.21	22.7	34.57
21	12/12/2020	90.32	46.54	24.28	38.39
22	16/12/2020	86.32	43.29	17.51	32.56
23	19/12/2020	78.33	39.34	21.28	35.62
24	23/12/2020	69.37	29.30	18.63	39.20
25	26/12/2020	70.22	32.47	23.49	30.61
26	30/12/2020	83.53	37.50	14.67	33.26
27	02/01/2021	82.63	44.58	15.62	27.53
28	06/01/2021	73.84	41.54	13.49	29.64
29	09/01/2021	69.54	36.51	19.23	33.44
30	13/01/2021	75.76	47.54	17.71	30.34

Continue ...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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WTP- NEAR CETP					
Sr.No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$
31	16/01/2021	92.75	54.36	21.17	41.22
32	20/01/2021	62.62	48.53	16.29	37.55
33	23/01/2021	78.86	31.51	23.48	40.27
34	27/01/2021	38.42	45.62	18.52	31.34
35	30/01/2021	56.76	35.63	20.30	34.27
36	03/02/2021	72.62	34.56	19.58	39.45
37	06/02/2021	91.52	49.45	14.55	25.63
38	10/02/2021	60.58	31.59	22.38	36.36
39	13/02/2021	73.62	46.37	18.35	32.45
40	17/02/2021	80.62	33.26	24.52	43.56
41	20/02/2021	88.64	45.33	15.67	34.56
42	24/02/2021	74.52	37.55	20.3	33.47
43	27/02/2021	84.31	44.25	17.5	40.22
44	03/03/2021	69.37	32.59	20.79	36.5
45	06/03/2021	76.51	35.42	18.2	28.5
46	10/03/2021	87.52	28.35	23.38	42.6
47	13/03/2021	78.66	44.25	14.54	33.49
48	17/03/2021	67.56	34.55	25.62	45.31
49	20/03/2021	84.53	48.62	22.49	43.19
50	24/03/2021	93.43	54.24	17.52	35.31
51	27/03/2021	81.56	40.25	19.61	38.5
52	31/03/2021	75.45	36.21	21.47	40.2
LIMIT[#]		100	60	80	80
TEST METHOD		IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric- CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO₂)

#: Industrial, Residential, Rural and other Area Notification Dated 16th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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RESULT OF AMBIENT AIR QUALITY MONITORING

AIR STRIP								
Sr. No	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO2) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO2) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH ₄ mg/m^3	Benzene as C ₆ H ₆ $\mu\text{g}/\text{m}^3$
1	03/10/2020	76.27	44.27	16.27	27.59	0.18	ND*	ND*
2	07/10/2020	58.37	26.58	12.55	32.58	0.26	ND*	ND*
3	10/10/2020	66.25	32.46	14.32	26.54	0.34	ND*	ND*
4	14/10/2020	61.58	31.29	17.84	34.54	0.31	ND*	ND*
5	17/10/2020	48.65	20.36	10.70	24.64	0.37	ND*	ND*
6	21/10/2020	69.22	40.26	15.21	20.57	0.25	ND*	ND*
7	24/10/2020	73.51	38.55	6.86	25.58	0.41	ND*	ND*
8	28/10/2020	65.36	30.21	13.25	35.27	0.30	ND*	ND*
9	31/10/2020	57.21	23.24	7.23	18.25	0.18	ND*	ND*
10	04/11/2020	62.38	36.28	17.51	28.43	0.50	ND*	ND*
11	07/11/2020	80.22	39.30	8.34	14.52	0.30	ND*	ND*
12	11/11/2020	63.35	30.69	15.61	27.52	0.57	ND*	ND*
13	14/11/2020	52.62	25.34	11.53	19.57	0.40	ND*	ND*
14	18/11/2020	63.68	28.60	14.22	29.55	0.48	ND*	ND*
15	21/11/2020	70.18	34.58	12.35	32.46	0.37	ND*	ND*
16	25/11/2020	56.55	29.56	7.40	20.34	0.25	ND*	ND*
17	28/11/2020	77.25	35.24	9.33	17.82	0.52	ND*	ND*
18	02/12/2020	76.25	26.88	15.27	26.27	0.32	ND*	ND*
19	05/12/2020	62.67	38.59	7.56	17.59	0.19	ND*	ND*
20	09/12/2020	57.55	43.36	11.23	28.37	0.41	ND*	ND*
21	12/12/2020	76.33	29.35	9.89	22.62	0.3	ND*	ND*
22	16/12/2020	62.64	32.53	10.33	18.37	0.38	ND*	ND*
23	19/12/2020	72.78	40.76	8.63	15.61	0.34	ND*	ND*
24	23/12/2020	54.68	21.87	12.71	23.82	0.31	ND*	ND*
25	26/12/2020	75.76	35.87	18.24	29.63	0.25	ND*	ND*
26	30/12/2020	61.84	24.54	6.57	20.67	0.21	ND*	ND*
27	02/01/2021	56.31	23.54	8.66	15.38	0.44	ND*	ND*
28	06/01/2021	81.51	47.54	15.66	25.37	0.30	ND*	ND*
29	09/01/2021	50.65	25.21	17.25	30.26	0.24	ND*	ND*
30	13/01/2021	63.64	28.35	10.35	21.23	0.47	ND*	ND*

Continue ...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)



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AIR STRIP								
Sr. No	Date of Sampling	Particulate Matter (PM ₁₀) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM _{2.5}) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH ₄ mg/m^3	Benzene as C ₆ H ₆ $\mu\text{g}/\text{m}^3$
31	16/01/2021	72.61	37.21	12.65	24.56	0.22	ND*	ND*
32	20/01/2021	58.64	34.24	9.69	19.52	0.45	ND*	ND*
33	23/01/2021	73.65	40.26	14.25	29.42	0.16	ND*	ND*
34	27/01/2021	53.67	27.51	7.91	22.33	0.50	ND*	ND*
35	30/01/2021	69.62	31.19	11.77	28.37	0.52	ND*	ND*
36	03/02/2021	67.62	31.24	11.27	36.31	0.37	ND*	ND*
37	06/02/2021	48.62	15.64	6.5	15.68	0.55	ND*	ND*
38	10/02/2021	69.31	29.48	12.31	22.43	0.17	ND*	ND*
39	13/02/2021	59.43	24.33	9.62	25.33	0.26	ND*	ND*
40	17/02/2021	48.62	21.53	14.57	32.11	0.82	ND*	ND*
41	20/02/2021	68.36	28.47	8.39	23.49	0.22	ND*	ND*
42	24/02/2021	50.21	23.5	18.48	26.17	0.5	ND*	ND*
43	27/02/2021	62.34	30.4	15.46	20.34	0.32	ND*	ND*
44	03/03/2021	64.22	26.38	9.61	28.19	0.21	ND*	ND*
45	06/03/2021	56.32	19.57	16.8	23.59	0.48	ND*	ND*
46	10/03/2021	49.64	20.44	11.2	29.5	0.4	ND*	ND*
47	13/03/2021	60.28	33.53	8.59	23.51	0.32	ND*	ND*
48	17/03/2021	51.53	19.4	17.22	38.41	0.41	ND*	ND*
49	20/03/2021	65.65	39.55	18.4	32.49	0.5	ND*	ND*
50	24/03/2021	54.53	30.27	7.52	29.79	0.21	ND*	ND*
51	27/03/2021	77.55	33.53	10.56	32.41	0.25	ND*	ND*
52	31/03/2021	69.57	26.34	13.46	24.5	0.31	ND*	ND*
LIMIT [#]		100	60	80	80	4	Not Specified	5
TEST METHOD		IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric-CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO ₂)	NDIR Digital Gas Analyzer	SOP: HC: GC/GCMS/Gas analyzer	IS 5182 (Part XI):2006/CPCB Method

*Not Detected

#: Industrial, Residential, Rural and other Area Notification Dated 16th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)

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RESULTS OF AMBIENT AIR QUALITY MONITORING

SAMUDRA TOWNSHIP STP					
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m ³	Particulate Matter (PM _{2.5}) µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Oxides of Nitrogen (NO ₂) µg/m ³
1	03/10/2020	63.67	26.39	20.41	31.28
2	07/10/2020	57.52	22.60	14.24	28.36
3	10/10/2020	79.56	43.54	18.51	36.58
4	14/10/2020	69.67	28.64	19.58	30.26
5	17/10/2020	52.42	23.85	16.24	35.57
6	21/10/2020	64.23	30.55	7.66	22.67
7	24/10/2020	58.63	29.55	12.22	32.41
8	28/10/2020	78.61	38.29	15.45	39.25
9	31/10/2020	68.34	35.46	11.20	29.31
10	04/11/2020	69.24	27.64	19.65	36.24
11	07/11/2020	74.38	34.53	10.35	27.68
12	11/11/2020	67.35	37.51	12.48	23.52
13	14/11/2020	58.32	22.30	18.24	29.26
14	18/11/2020	62.67	36.44	21.56	34.58
15	21/11/2020	56.32	31.54	14.56	26.36
16	25/11/2020	73.26	35.32	8.70	33.22
17	28/11/2020	64.57	26.32	11.27	28.23
18	02/12/2020	67.55	29.43	7.66	28.66
19	05/12/2020	59.34	25.33	9.59	20.34
20	09/12/2020	73.61	34.28	15.25	26.23
21	12/12/2020	68.35	27.23	19.57	33.47
22	16/12/2020	77.54	35.65	8.61	27.59
23	19/12/2020	87.76	45.43	13.58	21.55
24	23/12/2020	63.82	24.62	16.86	32.62
25	26/12/2020	89.62	43.40	14.54	23.61
26	30/12/2020	76.22	33.53	12.31	30.25
27	02/01/2021	63.22	28.68	13.20	18.66
28	06/01/2021	68.62	35.81	10.67	21.54
29	09/01/2021	47.62	31.50	12.59	24.53
30	13/01/2021	51.86	34.53	15.26	27.24

Continue..

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Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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SAMUDRA TOWNSHIP STP					
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m ³	Particulate Matter (PM _{2.5}) µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Oxides of Nitrogen (NO ₂) µg/m ³
31	16/01/2021	40.36	21.64	18.28	37.52
32	20/01/2021	28.36	42.61	7.51	32.57
33	23/01/2021	67.75	47.59	21.30	35.63
34	27/01/2021	74.62	37.55	9.43	16.54
35	30/01/2021	62.64	30.76	14.65	25.66
36	03/02/2021	38.62	18.60	16.84	33.50
37	06/02/2021	53.38	32.41	12.55	22.67
38	10/02/2021	35.76	20.35	18.24	31.26
39	13/02/2021	52.84	29.43	14.7	28.42
40	17/02/2021	85.62	54.34	20.39	40.28
41	20/02/2021	95.84	49.62	10.31	26.44
42	24/02/2021	80.42	43.52	15.33	29.43
43	27/02/2021	45.38	28.77	13.5	36.48
44	03/03/2021	32.86	21.64	17.48	30.6
45	06/03/2021	68.46	26.32	14.2	19.6
46	10/03/2021	77.62	39.42	19.21	36.21
47	13/03/2021	72.84	36.35	12.37	26.4
48	17/03/2021	63.42	29.31	23.38	42.51
49	20/03/2021	67.12	43.52	20.61	29.41
50	24/03/2021	81.34	40.46	13.69	32.2
51	27/03/2021	75.42	37.6	15.34	25.31
52	31/03/2021	60.12	24.58	18.48	28.31
LIMIT[#]		100	60	80	80
TEST METHOD		IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric- CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO₂)

#: Industrial, Residential, Rural and other Area Notification Dated 16th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.

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Lab Manager



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RESULTS OF AMBIENT AIR QUALITY MONITORING

SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr.No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m ³	Particulate Matter (PM _{2.5}) µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Oxides of Nitrogen (NO ₂) µg/m ³
1	03/10/2020	58.33	23.43	22.36	36.58
2	07/10/2020	69.36	33.45	9.85	24.25
3	10/10/2020	71.51	37.58	16.25	31.56
4	14/10/2020	65.65	24.51	12.48	26.32
5	17/10/2020	57.53	27.23	14.25	30.46
6	21/10/2020	74.26	34.20	10.44	25.65
7	24/10/2020	52.42	22.55	15.48	28.53
8	28/10/2020	72.57	35.37	8.63	23.28
9	31/10/2020	62.33	26.27	20.49	32.72
10	04/11/2020	55.61	22.40	13.62	20.85
11	07/11/2020	65.63	30.27	17.62	23.27
12	11/11/2020	59.34	26.24	7.53	17.54
13	14/11/2020	64.21	31.23	10.54	24.23
14	18/11/2020	70.25	28.65	18.19	38.57
15	21/11/2020	50.25	29.61	9.45	19.84
16	25/11/2020	68.32	32.27	11.64	29.35
17	28/11/2020	56.72	23.49	19.54	31.54
18	02/12/2020	62.65	32.60	9.59	22.61
19	05/12/2020	54.37	28.57	11.53	28.42
20	09/12/2020	65.37	46.37	12.86	20.54
21	12/12/2020	58.56	23.58	17.38	29.56
22	16/12/2020	69.25	38.42	13.83	23.66
23	19/12/2020	53.54	22.66	16.37	24.33
24	23/12/2020	48.67	19.54	14.38	27.87
25	26/12/2020	52.65	29.4	7.82	17.88
26	30/12/2020	71.67	30.27	10.29	26.30
27	02/01/2021	76.28	36.26	10.56	21.62
28	06/01/2021	63.62	44.24	7.61	18.57
29	09/01/2021	85.38	40.38	9.38	22.68
30	13/01/2021	70.62	30.69	13.22	25.55

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SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr.No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m ³	Particulate Matter (PM _{2.5}) µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Oxides of Nitrogen (NO ₂) µg/m ³
31	16/01/2021	84.52	50.36	15.61	29.47
32	20/01/2021	71.86	35.68	11.58	26.37
33	23/01/2021	82.62	26.53	19.59	31.58
34	27/01/2021	91.86	31.56	16.45	27.82
35	30/01/2021	87.54	42.50	8.60	17.65
36	03/02/2021	63.12	22.36	12.62	28.62
37	06/02/2021	58.76	19.34	8.65	19.35
38	10/02/2021	74.54	53.6	14.4	26.35
39	13/02/2021	88.42	33.43	16.5	21.53
40	17/02/2021	94.52	49.78	18.61	35.46
41	20/02/2021	89.34	37.26	6.79	18.36
42	24/02/2021	93.56	48.53	9.8	24.26
43	27/02/2021	76.76	35.64	11.34	30.34
44	03/03/2021	74.52	42.42	13.42	25.31
45	06/03/2021	94.82	38.63	9.37	15.6
46	10/03/2021	81.36	45.37	16.51	31.5
47	13/03/2021	89.52	47.65	10.21	29.29
48	17/03/2021	93.42	43.54	19.19	32.5
49	20/03/2021	78.36	50.36	14.32	36.29
50	24/03/2021	72.52	46.74	11.37	23.4
51	27/03/2021	80.36	35.64	7.57	28.59
52	31/03/2021	92.42	49.53	15.59	21.49
LIMIT [#]		100	60	80	80
TEST METHOD		IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric- CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO ₂)

#: Industrial, Residential, Rural and other Area Notification Dated 16th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.

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Lab Manager



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RESULT OF AMBIENT AIR QUALITY MONITORING

ADANI HOUSE								
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m ³	Particulate Matter (PM _{2.5}) µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Oxides of Nitrogen (NO ₂) µg/m ³	Carbon Monoxide as CO mg/m ³	Hydrocarbon as CH ₄ mg/m ³	Benzene as C ₆ H ₆ µg/m ³
1	02/10/2020	57.56	18.58	20.55	35.61	0.49	ND*	ND*
2	06/10/2020	65.61	37.61	8.30	17.52	0.37	ND*	ND*
3	09/10/2020	60.37	30.24	22.30	27.54	0.44	ND*	ND*
4	13/10/2020	55.22	25.36	11.23	30.80	0.55	ND*	ND*
5	16/10/2020	62.65	32.57	15.39	37.25	0.31	ND*	ND*
6	20/10/2020	78.25	43.57	19.21	32.50	0.41	ND*	ND*
7	23/10/2020	64.27	29.57	12.55	33.56	0.76	ND*	ND*
8	27/10/2020	59.24	33.57	21.24	34.54	0.62	ND*	ND*
9	30/10/2020	71.24	31.49	13.90	20.69	0.53	ND*	ND*
10	03/11/2020	62.58	26.20	8.70	19.58	0.79	ND*	ND*
11	06/11/2020	70.67	41.22	12.36	22.76	0.62	ND*	ND*
12	10/11/2020	66.23	32.49	19.87	32.43	0.36	ND*	ND*
13	13/11/2020	58.68	27.55	9.6	20.45	0.6	ND*	ND*
14	17/11/2020	65.47	23.45	20.23	28.61	0.44	ND*	ND*
15	20/11/2020	72.53	34.62	16.42	25.64	0.7	ND*	ND*
16	24/11/2020	68.36	36.29	13.44	36.48	0.87	ND*	ND*
17	27/11/2020	55.21	20.53	6.9	15.61	0.72	ND*	ND*
18	01/12/2020	60.51	30.23	17.51	34.51	0.46	ND*	ND*
19	04/12/2020	72.38	35.66	15.35	38.34	0.39	ND*	ND*
20	08/12/2020	55.66	43.56	13.67	23.52	0.69	ND*	ND*
21	11/12/2020	66.27	26.34	16.34	35.67	0.38	ND*	ND*
22	15/12/2020	78.68	34.53	9.54	18.66	0.71	ND*	ND*
23	18/12/2020	62.86	45.53	7.55	26.19	0.27	ND*	ND*
24	22/12/2020	96.75	52.76	10.23	22.32	0.56	ND*	ND*
25	25/12/2020	76.48	44.53	12.51	19.55	0.42	ND*	ND*
26	29/12/2020	58.66	24.37	8.66	27.56	0.77	ND*	ND*
27	01/01/2021	69.36	32.69	11.53	25.88	0.29	ND*	ND*
28	05/01/2021	52.42	38.76	8.63	19.32	0.47	ND*	ND*
29	08/01/2021	85.76	49.63	16.46	31.50	0.33	ND*	ND*
30	12/01/2021	90.60	51.63	12.68	21.07	0.45	ND*	ND*

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ADANI HOUSE								
Sr. No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO2) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO2) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH ₄ mg/m^3	Benzene as C ₆ H ₆ $\mu\text{g}/\text{m}^3$
31	15/01/2021	63.52	37.67	15.25	28.24	0.40	ND*	ND*
32	19/01/2021	95.84	43.52	17.53	32.57	0.17	ND*	ND*
33	22/01/2021	38.42	18.77	13.83	30.48	0.39	ND*	ND*
34	26/01/2021	70.36	31.61	14.57	35.38	0.60	ND*	ND*
35	29/01/2021	77.54	39.43	9.21	24.56	0.69	ND*	ND*
36	02/02/2021	76.34	36.25	19.45	28.28	0.19	ND*	ND*
37	05/02/2021	71.52	24.31	17.22	25.37	0.31	ND*	ND*
38	09/02/2021	58.63	26.84	15.34	30.39	0.57	ND*	ND*
39	12/02/2021	66.22	29.48	7.71	18.61	0.27	ND*	ND*
40	16/02/2021	57.33	33.49	10.24	15.40	0.64	ND*	ND*
41	19/02/2021	60.36	30.44	8.66	21.51	0.53	ND*	ND*
42	23/02/2021	52.42	21.24	11.54	31.20	0.44	ND*	ND*
43	26/02/2021	69.32	34.20	13.53	22.38	0.21	ND*	ND*
44	02/03/2021	57.28	19.65	12.66	20.34	0.52	ND*	ND*
45	05/03/2021	69.24	41.27	18.3	36.88	0.44	ND*	ND*
46	09/03/2021	77.55	33.66	8.68	21.56	0.48	ND*	ND*
47	12/03/2021	63.56	26.51	11.51	23.62	0.41	ND*	ND*
48	16/03/2021	79.22	31.52	13.85	29.67	0.25	ND*	ND*
49	19/03/2021	55.64	20.28	9.63	25.49	0.39	ND*	ND*
50	23/03/2021	67.52	37.59	16.41	28.44	0.14	ND*	ND*
51	26/03/2021	62.66	32.65	10.61	18.66	0.56	ND*	ND*
52	30/03/2021	74.31	27.51	6.81	22.32	0.23	ND*	ND*
LIMIT#		100	60	80	80	4	Not Specified	5
TEST METHOD		IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric-CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO2)	NDIR Digital Gas Analyzer	SOP: HC: GC/GCMS/Gas analyzer	IS 5182 (Part XI):2006/CPCB Method

*Not Detected

#: Industrial, Residential, Rural and other Area Notification Dated 16th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.

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Lab Manager



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RESULTS OF NOISE LEVEL MONITORING**Result of Noise level monitoring [Day Time]**

SR. NO.	Name of Location	WTP- NEAR CETP					
		Result [dB(A) Leq]					
		03/10/2020	07/11/2020	21/12/2020	28/01/2021	01/02/2021	01/03/2021
1	6:00-7:00	65.1	65.1	63.4	45.1	66.5	60.1
2	7:00-8:00	62.8	62.4	65.1	46.8	60.1	58.4
3	8:00-9:00	68.4	68.4	67.9	56.8	68.4	65.2
4	9:00-10:00	69.5	60.8	62.8	53.7	70.5	61.2
5	10:00-11:00	66.2	65.4	66.5	58.9	72.4	63.8
6	11:00-12:00	64.8	68.4	65.2	56.7	73.8	68.5
7	12:00-13:00	70.1	64.4	67.3	59.8	69.4	66.2
8	13:00-14:00	66.4	72.1	70.4	56.1	61.5	69.5
9	14:00-15:00	68.4	62.7	68.6	56.4	65.4	66.4
10	15:00-16:00	62.1	62.4	64.4	61.7	73.5	64.1
11	16:00-17:00	63.4	60.1	62.8	62.8	62.5	62.8
12	17:00-18:00	61.5	66.8	65.7	63.8	64.1	62.8
13	18:00-19:00	68.7	63.4	62.2	68.4	61.5	64.1
14	19:00-20:00	62.1	61.8	63.9	65.3	62.8	61.2
15	20:00-21:00	61.8	62.4	60.8	69.8	63.8	63.5
16	21:00-22:00	63.4	61.7	62.1	62.7	64.8	68.4
Day Time Limit*		75 dB(A) Leq					

Result of Noise level monitoring [Night Time]

	Name of Location	WTP- NEAR CETP					
		Result [dB(A) Leq]					
		03/10/2020	07/11/2020	21/12/2020	28/01/2021	01/02/2021	01/03/2021
1	22:00-23:00	68.4	68.4	66.3	68.4	63.1	66.4
2	23:00-00:00	64.2	62.4	63.8	46.1	62.8	60.1
3	00:00-01:00	67.2	62.1	65.1	53.4	59.1	63.4
4	01:00-02:00	62.3	62.7	63.7	45.7	62.5	59.4
5	02:00-03:00	61.5	65.8	62.4	44.2	63.8	62.4
6	03:00-04:00	64.8	63.7	61.9	44.9	59.4	61.5
7	04:00-05:00	62.1	62.8	60.6	48.2	55.1	58.4
8	05:00-06:00	64.4	63.4	62.5	42.7	62.4	60.3
Night Time Limit*		70 dB(A) Leq					

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RESULTS OF NOISE LEVEL MONITORING**Result of Noise level monitoring [Day Time]**

SR. NO.	Name of Location	AIR STRIP					
		Result [dB(A) Leq]					
	Sampling Date & Time	21/10/2020	14/11/2020	10/12/2020	29/01/2021	13/02/2021	21/03/2021
1	6:00-7:00	58.4	62.4	60.9	48.3	55.4	51.4
2	7:00-8:00	56.4	62.8	59.7	44.2	59.1	55.2
3	8:00-9:00	62.4	59.7	61.4	53.1	62.4	62.4
4	9:00-10:00	60.4	60.4	62.5	56.7	61.5	56.2
5	10:00-11:00	65.4	65.1	64.8	56.2	63.8	63.8
6	11:00-12:00	63.1	62.4	61.9	54.8	65.8	60.3
7	12:00-13:00	62.5	60.7	63.3	58.9	65.4	63.7
8	13:00-14:00	68.4	64.1	65.6	61.4	59.4	65.1
9	14:00-15:00	62.8	58.7	61.8	62.8	60.4	62.8
10	15:00-16:00	61.4	58.4	59.3	65.7	62.5	60.8
11	16:00-17:00	62.8	60.4	61.7	63.2	68.9	61.2
12	17:00-18:00	61.4	59.1	62.1	68.4	66.1	59.8
13	18:00-19:00	63.4	62.4	63.8	64.1	62.8	55.4
14	19:00-20:00	62.8	55.1	58.6	62.2	65.5	60.2
15	20:00-21:00	62.4	59.4	58.2	61.7	62.7	61.4
16	21:00-22:00	61.5	54.1	56.3	52.6	67.8	64.2
Day Time Limit*		75 dB(A) Leq					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	AIR STRIP					
		Result [dB(A) Leq]					
	Sampling Date & Time	21/10/2020	14/11/2020	10/12/2020	29/01/2021	13/02/2021	21/03/2021
1	22:00-23:00	62.1	65.8	64.1	65.7	59.4	59.1
2	23:00-00:00	65.4	62.4	61.3	59.7	55.1	58.4
3	00:00-01:00	63	52.4	57.2	47.6	54.1	60.4
4	01:00-02:00	57.4	62.8	53.6	42.1	48.4	54.1
5	02:00-03:00	53.1	59.7	54.1	41.7	55.6	46.2
6	03:00-04:00	58.4	56.1	55.4	40.7	52.1	52.1
7	04:00-05:00	60.5	59.7	58.3	49.8	42.8	45.1
8	05:00-06:00	60.7	60.4	59.6	42.8	62.5	50.2
Night Time Limit*		70 dB(A) Leq					

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)



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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP STP					
		Result [Leq dB(A)]					
	Sampling Date & Time	14/10/2020	18/11/2020	02/12/2020	26/01/2021	08/02/2021	19/03/2021
1	6:00-7:00	58.2	57.4	59.2	41.2	63.2	62.5
2	7:00-8:00	62.1	60.1	61.7	58.8	61.3	63.4
3	8:00-9:00	63.8	62.4	63.4	59.4	69.5	68.3
4	9:00-10:00	65.4	62.5	64.7	58.6	65.1	65.6
5	10:00-11:00	68.7	65.3	66.3	59.8	62.5	62.3
6	11:00-12:00	67.1	64.8	65.6	56.7	61.2	61.2
7	12:00-13:00	69.4	68.4	70.1	58.3	68.7	60.8
8	13:00-14:00	64.5	62.7	67.2	54.8	63.4	68.5
9	14:00-15:00	65.8	61.5	64.8	52.4	68.8	65.5
10	15:00-16:00	62.4	62.8	63.9	53.7	66.1	59.4
11	16:00-17:00	61.5	62.8	62	55.2	62.4	60.2
12	17:00-18:00	62.8	63.1	65.1	58.1	65.4	62.4
13	18:00-19:00	69.4	65.4	67.4	49.3	64.8	65.1
14	19:00-20:00	65.1	65.8	63.2	49.5	62.8	63.8
15	20:00-21:00	61.8	62.7	63.5	46.7	63.8	66.7
16	21:00-22:00	62.5	65.5	61.8	44.8	61.5	60.4
		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP STP					
		Result [Leq dB(A)]					
	Sampling Date & Time	14/10/2020	18/11/2020	02/12/2020	26/01/2021	08/02/2021	19/03/2021
1	22:00-23:00	65.5	63.1	64.8	51.4	63.8	60.1
2	23:00-00:00	69.4	62.4	62.3	45.8	65.4	63.4
3	00:00-01:00	63.1	67.1	64.5	47.6	60.1	59.8
4	01:00-02:00	62.4	61.4	65.1	49.2	59.4	62.4
5	02:00-03:00	65.5	63.8	66.3	41.5	62.1	58.4
6	03:00-04:00	62.1	61.4	64.6	40.3	61.8	66.1
7	04:00-05:00	61.2	62.7	68.7	45.2	62.8	61.4
8	05:00-06:00	63.2	63.7	65.2	40.7	63.7	63.8
Night Time Limit*		70 dB(A) Leq					



H. T. Shah

Lab Manager





Dr. Arun Bajpai

Lab Manager (Q)



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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP CUSTOMER CARE					
		Result [Leq dB(A)]					
	Sampling Date & Time	07/10/2020	04/11/2020	07/12/2020	19/01/2021	15/02/2021	02/03/2021
1	6:00-7:00	59.8	59.4	61.2	42.8	58.4	57.4
2	7:00-8:00	62.4	69.8	67.6	46.8	60.1	55.8
3	8:00-9:00	65.1	63.7	62.8	49.8	55.1	62.1
4	9:00-10:00	68.7	65.4	64.3	53.4	62.1	63.8
5	10:00-11:00	69.5	67.1	68.1	58.7	60.4	64.5
6	11:00-12:00	62.4	65.1	67.4	55.2	68.2	61.2
7	12:00-13:00	65.4	62.8	66.7	56.4	66.1	63.2
8	13:00-14:00	63.4	61.5	69.1	61.7	68.4	52.4
9	14:00-15:00	68.4	63.1	65.2	68.3	64.2	62.8
10	15:00-16:00	62.1	68.4	67.7	59.4	62.5	59.4
11	16:00-17:00	61.4	68.4	66.6	51.8	63.8	58.5
12	17:00-18:00	64.5	60.1	62.9	54.3	67.7	55.1
13	18:00-19:00	61.4	62.8	63.4	52.8	69.4	60.4
14	19:00-20:00	65.4	60.7	61.8	53.1	62.4	66.5
15	20:00-21:00	68.4	65.7	64.2	54.7	61.5	65.1
16	21:00-22:00	64.5	61.8	63.7	41.2	59.9	62.4
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP CUSTOMER CARE					
		Result [Leq dB(A)]					
	Sampling Date & Time	07/10/2020	04/11/2020	07/12/2020	19/01/2021	15/02/2021	02/03/2021
1	22:00-23:00	66.8	65.4	67.6	49.7	56.1	60.4
2	23:00-00:00	68.4	62.8	67.2	48.3	60.1	57.4
3	00:00-01:00	62.3	60.1	64.1	42.1	58.4	57.1
4	01:00-02:00	61.4	62.8	60.3	45.5	55.4	47.1
5	02:00-03:00	58.4	60.7	59.6	49.2	49.4	52.1
6	03:00-04:00	57.1	65.4	58.7	51.2	44.2	50.1
7	04:00-05:00	60	63.8	61.3	53.8	49.1	59.8
8	05:00-06:00	62.1	61.4	58.2	41.2	52.4	60.4
Night Time Limit*		70 Leq dB(A)					

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	ADANI HOUSE					
		Result [Leq dB(A)]					
	Sampling Date & Time	20/10/2020	10/11/2020	15/12/2020	14/01/2021	11/02/2021	04/03/2021
1	6:00-7:00	63.1	63.8	62.4	46.8	62.4	60.1
2	7:00-8:00	68.8	65.1	66.1	47.3	60.5	65.1
3	8:00-9:00	72.1	68.4	70.9	49.3	68.4	66.8
4	9:00-10:00	69.5	62.5	68.8	42.7	71.4	70.1
5	10:00-11:00	64.2	63.4	66.6	55.8	62.5	68.5
6	11:00-12:00	61.5	68.4	65.4	59.7	72.5	66.1
7	12:00-13:00	62.8	66.1	71.3	54.9	70.1	62.5
8	13:00-14:00	69.5	62.8	68.2	57.3	62.1	64.5
9	14:00-15:00	63.1	69.8	62.8	55.2	69.7	69.5
10	15:00-16:00	62.4	62.4	64.7	54.4	66.1	71.4
11	16:00-17:00	66.1	69.5	68.1	56.7	67.4	68.3
12	17:00-18:00	68.4	62.1	65.9	53.8	69.3	63.4
13	18:00-19:00	65.2	61.5	64.3	58.3	63.5	68.2
14	19:00-20:00	63.1	63.4	65.2	51.8	61.4	62.2
15	20:00-21:00	69.5	68.4	67.4	53.7	60.4	63.1
16	21:00-22:00	66.4	62.8	65.1	49.7	65.4	61.5
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	ADANI HOUSE					
		Result [Leq dB(A)]					
	Sampling Date & Time	20/10/2020	10/11/2020	15/12/2020	15/01/2021	11/02/2021	04/03/2021
1	22:00-23:00	65.8	67.4	66.8	58.7	63.8	60.1
2	23:00-00:00	68.4	65.2	67.2	69.7	68.4	62.5
3	00:00-01:00	61.2	62.5	63.1	41.2	60.1	67.4
4	01:00-02:00	62.3	68.4	65.4	46.8	59.4	60.3
5	02:00-03:00	68.1	61.5	65.3	45.2	55.1	60.2
6	03:00-04:00	60.4	66.2	64.7	46.1	53.8	65.4
7	04:00-05:00	63.2	62.7	63.2	44.8	62.1	61.2
8	05:00-06:00	62.8	68.4	61.6	42.8	60.5	63.8
Night Time Limit*		70 Leq dB(A)					

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)



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RESULTS OF STP WATER OUTLET

SR. NO	TEST PARAMETERS	Unit	ADANI HOUSE STP OUTLET							
			October-2020		November-2020		December-2020		GPCB Permissible Limit	TEST METHOD
			05/10/2020	21/10/2020	03/11/2020	17/11/2020	07/12/2020	17/12/2020		
1	pH	--	7.72	7.29	7.69	8.20	7.76	7.04	6.5 to 9.0	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	13	13	12	15	13	8.0	100	IS3025(P17)84Re.02
3	BOD (3 days @ 270 C)	mg/L	16	15	15	12	17	10	30	IS 3025 (P44)1993Re.03Edition2.1
4	Residual Chlorine	mg/L	0.8	0.6	0.6	0.8	0.8	0.6	--	APHA(22ndEdi)4500 Cl
5	Fecal Coliform	MPN/100 ml	430	430	540	540	430	350	1000	APHA (22ndEdi) 9221 C&E

SR • NO	TEST PARAMETER S	Unit	ADANI HOUSESTP OUTLET								
			January-2021		February-2021		March-2021			GPCB Permissible Limit	TEST METHOD
			05/01 /2021	21/01 /2021	06/02 /2021	15/02 /2021	03/03 /2021	17/03 /2021	23/03 /2021		
1	pH	--	7.31	7.63	7.91	7.83	7.72	7.86	7.81	6.5 to 9.0	IS3025(P11)83Re.0 2
2	Total Suspended Solids	mg/ L	15	17	13	15	16	17	17	100	IS3025(P17)84Re.0 2
3	BOD (3 days @ 270 C)	mg/ L	14	15	12	17	19	15	14	30	IS 3025 (P44)1993Re.03E dition2.1
4	Residual Chlorine	mg/ L	0.6	0.6	0.8	0.6	0.7	0.6	0.8	--	APHA(22ndEdi)450 0 Cl
5	Fecal Coliform	MPN /100 ml	220	210	170	140	110	170	110	1000	APHA (22ndEdi) 9221 C&E



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Lab Manager (Q)

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RESULTS OF STP WATER OUTLET

SR. NO	TEST PARAMETERS	Unit	AMSIPL SAMUNDRA TOWNSHIP STP OUTLET							
			October-2020		November-2020		December-2020		GPCB Permissible Limit	TEST METHOD
			05/10/2020	21/10/2020	03/11/2020	17/11/2020	07/12/2020	--		
1	pH	--	8.03	7.20	7.63	7.90	7.76	--	6.5 to 9.0	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	17	12	13	15	15	--	100	IS3025(P17)84Re.02
3	BOD (3 days @ 27 ^o C)	mg/L	12	17	15	14	17	--	30	IS 3025 (P44)1993Re.03Edition 2.1
4	Residual Chlorine	mg/L	0.8	0.8	0.6	0.6	0.6	--	--	APHA(22ndEdi)4500 Cl
5	Fecal Coliform	MPN/ 100 ml	540	430	420	350	350	--	1000	APHA (22ndEdi) 9221 C&E

SR. NO	TEST PARAMETERS	Unit	AMSIPL SAMUNDRA TOWNSHIP STP OUTLET							
			January-2021		February-2021		March-2021		GPCB Permissible Limit	TEST METHOD
			06/01/2021	21/01/2021	06/02/2021	17/02/2021	03/03/2021	17/03/2021		
1	pH	--	7.50	7.35	7.58	7.39	7.41	7.32	6.5 to 9.0	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	13	15	11	15	19	24	100	IS3025(P17)84Re.02
3	BOD (3 days @ 27 ^o C)	mg/L	19	16	27	18	17	18	30	IS 3025 (P44)1993Re.03Edition2.1
4	Residual Chlorine	mg/L	0.6	0.8	0.6	0.7	0.7	0.6	--	APHA(22ndEdi)4500 Cl
5	Fecal Coliform	MPN/100 ml	540	350	240	430	350	430	1000	APHA (22ndEdi) 9221 C&E

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

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RESULT OF CETP INTLET

SR. NO.	TEST PARAMETERS	UNIT	CETP INLET						GPCB Permissible Limit CETP INLET	TEST METHOD
			Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	March-21		
1	pH	--	7.32	7.61	7.37	7.57	8.36	7.27	6.5 to 8.5	IS3025(P11)83R e.02
2	Temperature	°C	29.5	30.2	30	30	30.1	30.2	--	IS3025(P9)84Re .02
3	Colour	Co-pt	50	50	40	50	60	40	100	IS3025(P4)83Re .02
4	Total Suspended Solids	mg/L	135	88	69	49	57	29	800	IS3025(P17)84R e.02
5	Oil & Grease	mg/L	4.1	6.6	5.4	5.8	4.9	5.8	20	APHA(22 nd Edi)5 520D
6	Phenolic Compound	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	2	IS3025(P43)92R e.03
7	Fluorides	mg/L	0.92	0.75	0.68	0.76	0.68	0.42	2	APHA(22 nd Edi) 4500 F D SPANDS
8	Iron	mg/L	0.86	0.78	0.82	0.68	0.53	0.38	3	AAS APHA(22 nd Edi)3 111 B
9	Zinc as Zn	mg/L	Not Detected	0.056	0.18	0.24	0.21	0.17	15	AAS APHA(22 nd Edi)3 111 B
10	Trivalent Chromium	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	3	AAS APHA(22 nd Edi)3 111 B
11	Sulphide as S	mg/L	Not Detected	0.80	0.7	0.93	0.92	Not Detected	2	APHA(22 nd Edi) 4500-S
12	Ammonical Nitrogen as NH ₃	mg/L	12.68	20.2	23	28	21	9	50	IS3025(P34)88C la.2.3
13	BOD (3 Days @ 27°C)	mg/L	72	95	58	52	47	32	1000	IS 3025 (P44)1993Re.03 Edition2.1
14	COD	mg/L	204	323	361	324	371	171	2000	APHA(22 nd Edi) 5520-D Open Reflux
15	Chloride as Cl	mg/L	839	949	806	930	876	804	1000	IS3025(P32)88R e.99
16	Sulphate as SO ₄	mg/L	70	128	143	163	142	128	1000	APHA(22 nd Edi)4 500 SO ₄ E
17	Total Dissolved Solids	mg/L	1896	2044	2038	2068	1876	2056	2100	IS3025(P16)84R e.02
18	Total Residual Chlorine	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	2	APHA(22 nd Edi)4 500 Cl
19	Copper as Cu	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	3	AAS APHA(22 nd Edi)3 111 B

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)



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RESULT OF CETP OUTLET

SR. NO.	TEST PARAMETERS	UNIT	CETP OUTLET						GPCB Permissible Limit CETP OUTLET	TEST METHOD
			Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	March-21		
1	pH	--	7.64	7.98	7.76	7.8	7.93	8.32	6 to 9	IS3025(P11)83Re.02
2	Temperature	°C	29.4	30.8	30.2	30.4	30.2	30.3	Shall Not exceed more than 5 °C above ambient water temperature	IS3025(P9)84Re.02
3	Colour	Co-pt	20	40	30	20	30	20	100	IS3025(P4)83Re.02
4	Total Suspended Solids	mg/L	22	26	22	15	21	15	100	IS3025(P17)84Re.02
5	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	10	APHA(22 nd Edi)5520 D
6	Phenolic Compound	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	1	IS3025(P43)92Re.03
7	Fluorides	mg/L	0.74	0.64	0.59	0.48	0.37	0.21	2	APHA(22 nd Edi) 4500 F D SPANDS
8	Iron	mg/L	0.49	0.29	0.21	0.150	0.240	0.130	3	AAS APHA(22 nd Edi)3111 B
9	Zinc as Zn	mg/L	Not Detected	0.27	0.068	0.093	0.130	0.100	15	AAS APHA(22 nd Edi)3111 B
10	Trivalent Chromium	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	2	AAS APHA(22 nd Edi)3111 B
11	Sulphide as S	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	2	APHA(22 nd Edi) 4500-S
12	Ammonical Nitrogen as NH ₃	mg/L	14.96	23.4	26	23	19	1.14	50	IS3025(P34)88Cla. 2.3
13	BOD (3 Days @ 27°C)	mg/L	34	32	25	21	25	21	100	IS 3025 (P44)1993Re.03Edition2.1
14	COD	mg/L	124	121	146	130	178	160	250	APHA(22 nd Edi) 5520-D Open Reflux
15	Chloride as Cl	mg/L	819	799	704	775	724	734	1000	IS3025(P32)88Re.99
16	Sulphate as SO ₄	mg/L	42	96	103	110	93	82	1000	APHA(22 nd Edi)4500 SO ₄ E
17	Total Dissolved Solids	mg/L	1920	1982	1936	1974	1683	1864	2100	IS3025(P16)84Re.02
18	Total Residual Chlorine	mg/L	0.6	0.4	0.6	0.6	0.8	0.7	1	APHA(22 nd Edi)4500 Cl
19	Copper as Cu	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	3	AAS APHA(22 nd Edi)3111 B
20	Bio-assay Test	--	100% survival of fish after 96 hrs in 100% effluent	100% survival of fish after 96 hrs in 100% effluent	90% survival of fish after 96 hrs in 100% effluent	90% survival of fish after 96 hrs in 100% effluent	90% survival of fish after 96 hrs in 100% effluent	90% survival of fish after 96 hrs in 100% effluent	90% survival of fish after 96 hrs in 100% effluent	OECD 203 B/IS 6582 2001

H. T. Shah

Lab Manager



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RESULTS OF BORE HOLE WATER

SR. NO	TEST PARAMETERS	UNIT	RESULTS		TEST METHOD
			OPP. DRUB RAILWAY STATION	NEAR CETP MAIN GATE	
	Sampling Date		17/12/2020	17/12/2020	
1	pH	--	7.64	8.07	IS3025(P11)83Re.02
2	Salinity	ppt	28	2.84	APHA 2520B
3	Oil & Grease	mg/L	Not Detected	Not Detected	APHA(22ndEdi)5520D
4	Hydrocarbon	mg/L	Not Detected	Not Detected	GC/GC-MS
5	Lead as Pb	mg/L	Not Detected	0.038	AAS APHA(22ndEdi)3111 B
6	Arsenic as As	mg/L	Not Detected	Not Detected	AAS APHA 3114 B
7	Nickel as Ni	mg/L	Not Detected	Not Detected	AAS APHA(22ndEdi)3111 B
8	Total Chromium as Cr	mg/L	0.03	0.027	AAS 3111B
9	Cadmium as Cd	mg/L	Not Detected	Not Detected	AAS APHA(22ndEdi)3111 B
10	Mercury as Hg	mg/L	Not Detected	Not Detected	AAS APHA- 3112 B
11	Zinc as Zn	mg/L	0.56	0.31	AAS APHA(22ndEdi)3111 B
12	Copper as Cu	mg/L	Not Detected	Not Detected	AAS APHA(22ndEdi)3111 B
13	Iron as Fe	mg/L	0.32	0.2	AAS APHA(22ndEdi)3111 B
14	Insecticides/Pesticides	mg/L	Absent	Absent	GC/GC-MS
15	Depth of Water Level from Ground Level	meter	2.3	2.25	--

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

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RESULTS OF D.G. STACK MONITORING

		25/03/2021		30/01/2021		20/03/2021	
SR. NO.	TEST PARAMETERS	Unit	Adani House	Adani Hospital	PUB	GPCB Limit	Test Method
			D.G. Set (750 KVA)	D.G. Set (500 KVA)	DG Set (500 KVA)		
1	Particulate Matter	mg/Nm ³	18.51	19.66	15.29	150	IS:11255 (Part-I):1985
2	Sulphur Dioxide	ppm	4.21	4.48	4.22	100	IS:11255 (Part-II):1985
3	Oxide of Nitrogen	ppm	28.74	32.68	24.27	50	IS:11255 (Part-VII):2005

*DG sets are used as standby, so stack monitoring is done on quarterly basis. Results on 15 % O₂ Correction when Oxygen is greater than 15 %

08/12/2021					
SR. NO.	TEST PARAMETERS	Unit	WTP-CETP	GPCB Limit	Test Method
			D.G. Set (380 KVA)		
1	Particulate Matter	mg/Nm ³	25.62	150	IS:11255 (Part-I):1985
2	Sulphur Dioxide	ppm	5.41	100	IS:11255 (Part-II):1985
3	Oxide of Nitrogen	ppm	38.44	50	IS:11255 (Part-VII):2005
4	Carbon Monoxide	mg/m ³	13.26	Not Specified	Digital Gas Analyzer
5	Hydro Carbon NMHC	ppm	Not Detected	Not Specified	Gas Chromatography

*DG sets are used as standby, so stack monitoring is done on quarterly basis. Results on 15 % O₂ Correction when Oxygen is greater than 15 %**H. T. Shah****Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

**RESULTS OF SOIL MONITORING**

SR. NO.	TEST PARAMETERS	UNIT	RESULT			
			17/12/2020			
			Pub Building	Dhrub	Near Flyover Bridge	CETP
1	pH	--	9.33	8.95	8.26	9.20
2	Nitrogen as N	%	0.034	0.137	0.156	0.22
3	Phosphorus as P	mg/kg	307	254	177	354
4	Potassium as K	mg/kg	236	130	93	116
5	Baron as B	mg/kg	1.94	1.73	1.68	2.40
6	Calcium as Ca	mg/kg	340	390	440	446
7	Magnesium as Mg	mg/kg	328	364	768	684
8	Iron as Fe	%	0.46	0.58	0.61	0.59
9	Moisture	%	6.82	7.61	5.13	6.90
10	Organic Matter	%	0.23	0.65	0.50	0.151
11	CEC	meq/100 gm	10.6	9.84	10.18	9.94
12	TVC	CFU/gm	2.2×10^6	2.2×10^5	1.9×10^5	2.6×10^5
A	Heavy Metals					
13	Cadmium as Cd	mg/kg	Not Detected	Not Detected	Not Detected	Not Detected
14	Thorium as Th	mg/kg	Not Detected	Not Detected	Not Detected	Not Detected
15	Antimony as Sb	mg/kg	Not Detected	Not Detected	Not Detected	Not Detected
16	Arsenic as As	mg/kg	Not Detected	Not Detected	Not Detected	Not Detected
17	Lead as Pb	mg/kg	Not Detected	Not Detected	Not Detected	Not Detected
18	Chromium (VI) as Cr	mg/kg	Not Detected	Not Detected	Not Detected	Not Detected
19	Cobalt as Co	mg/kg	12.59	10.80	24.4	20.72
20	Copper as Cu	mg/kg	11.16	18.1	33.05	39.21
21	Nickel as Ni	mg/kg	9.34	17.18	15.82	10.9
22	Manganese as Mn	mg/kg	221	290	321	305
23	Vanadium as V	mg/kg	8.3	7.3	8.7	7.84

Not Detected [Minimum Detection Limit for Solid Waste/Soil sample prepared as per USEPA method 3050 B: Cadmium as Cd: 1.0 mg/kg, Thorium as Th: 0.1 mg/kg, Antimony as Sb: 1.0 mg/kg, Arsenic as As: 1.0 mg/kg, Lead as Pb: 1.0 mg/kg, Chromium (VI) as Cr: 0.1 mg/kg, Cobalt as Co: 1.0 mg/kg]

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

**POLLUCON**

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Cleaner Production, Waste Minimization Facilitators

Recognised by MoEF, New Delhi (Under Sec. 12 of Environmental Protection Act-1986)

Minimum Detection Limit [MDL]

Water parameter(mg/L)		
Sr. No.	Test parameter	MDL
1	pH	2
2	Temperature	2
3	Colour	2
4	Total Suspended Solids	2
5	Oil & Grease	1
6	Phenolic Compound	0.01
7	Fluorides	0.05
8	Iron	0.01
9	Zinc as Zn	0.05
10	Trivalent Chromium	0.05
11	Sulphide as S	0.1
12	Ammonical Nitrogen as NH ₃	0.2
13	BOD (3 Days @ 27 °C)	1
14	COD	5
15	Chloride as Cl	1
16	Sulphate as SO ₄	1
17	Total Dissolved Solids	10
18	Total Residual Chlorine	0.1
19	Copper as Cu	0.01

Borehole Water Parameters			
SR. NO.	TEST PARAMETERS	UNIT	MDL
1	pH	--	2
2	Salinity	mg/L	0.5
3	Oil & Grease	mg/L	2
4	Hydrocarbon	mg/L	0.01
5	Lead as Pb	mg/L	0.01
6	Arsenic as As	mg/L	0.001
7	Nickel as Ni	mg/L	0.02
8	Total Chromium as Cr	mg/L	0.025
9	Cadmium as Cd	mg/L	0.002
10	Mercury as Hg	mg/L	0.005
11	Zinc as Zn	mg/L	0.06
12	Copper as Cu	mg/L	0.01
13	Iron as Fe	mg/L	0.1
14	Insecticides/Pesticides	mg/L	0.1

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

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Ambient Air Parameters		
Sr. No.	Test Parameter	MDL
1	Particulate Matter (PM10) ($\mu\text{g}/\text{m}^3$)	10
2	Particulate Matter (PM 2.5) ($\mu\text{g}/\text{m}^3$)	10
3	Sulphur Dioxide (SO_2) ($\mu\text{g}/\text{m}^3$)	5
4	Oxides of Nitrogen ($\mu\text{g}/\text{m}^3$)	5
5	Hydrogen Sulphide as H_2S ($\mu\text{g}/\text{m}^3$)	6

STP Water parameter(mg/L)		
Sr. No.	Test parameter	MDL
1	pH	2
2	Total Suspended Solids (mg/L)	2
3	BOD (3 days @ 270 C) (mg/L)	1
4	Residual Chlorine (mg/L)	0.2
5	Fecal Coliform (MPN INDEX/100 mL)	1.8

Stack parameter		
Sr.No.	Test parameter	MDL
1	Particulate Matter (mg/Nm^3)	10
2	Sulphur Dioxide (ppm)	1.52
3	Oxides of Nitrogen (ppm)	2.65
4	Carbon Monoxide (mg/Nm^3)	0.1
5	Hydro Carbon NMHC(ppm)	1.0

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

Monthly Average Report

Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch,
GUJARAT - 370 435.

Month of Monitoring : February - 2021

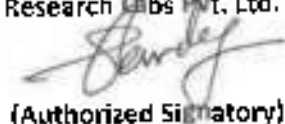
Name of Location : Village - Siracha

ID No. : URA/ID/A-21/02/001

Sr. No.	Sampling Date	Concentration In Ambient Air (µg /m³)					
		PM ₁₀ µg/M³	PM _{2.5} µg/M³	Sulphur Dioxide (SO ₂) µg/M³	Nitrogen Dioxide (NO ₂) µg/M³	Ozone (O ₃) µg/M³	Mercury (Hg) µg/M³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/02/2021	76.0	23.3	11.6	19.7		--
2.	05/02/2021	57.0	19.9	16.3	21.1		--
3.	08/02/2021	75.0	25.8	14.8	27.3	16.5	BDL
4.	12/02/2021	76.1	29.5	20.5	17.8		--
5.	15/02/2021	75.6	30.7	16.8	24.2		--
6.	19/02/2021	74.1	35.2	14.2	19.5		--
7.	22/02/2021	54.7	23.7	19.3	25.7		--
8.	26/02/2021	65.1	24.2	17.8	20.1		--
Average		69.2	26.5	16.4	21.9		--

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDI limit: 5 $\mu\text{g}/\text{m}^3$

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Monthly Average Report
Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch.
GUJARAT - 370 435.

Month of Monitoring : February - 2021

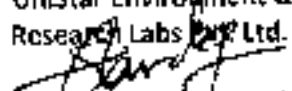
Name of Location : Village - Kandagara

ID No. : URA/ID/A-21/02/002

Sr. No.	Sampling Date	Concentration in Ambient Air (µg / m³)					
		PM ₁₀ µg/M³	PM _{2.5} µg/M³	Sulphur Dioxide (SO ₂) µg/M³	Nitrogen Dioxide (NO ₂) µg/M³	Ozone (O ₃) µg/M³	Mercury (Hg) µg/M³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/02/2021	77.1	35.5	15.4	18.6		--
2.	05/02/2021	59.9	27.5	19.6	23.5		--
3.	08/02/2021	70.5	31.5	16.1	19.3	17.3	BDL
4.	12/02/2021	63.4	23.0	11.9	14.5		--
5.	15/02/2021	75.0	29.7	21.6	26.8		--
6.	19/02/2021	71.5	22.4	18.3	23.6		--
7.	22/02/2021	66.5	28.7	15.2	17.4		--
8.	26/02/2021	70.7	31.5	16.4	24.8		--
Average		69.3	28.7	16.8	21.1		--

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM- IS: 5182 (Part 4), 1999, PM₁₀- IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂- IS: 5182 (Part 2), 2001, NO_x- IS: 5182 (Part 6), 2006, Hg: AA5 by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
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Monthly Average Report

Ambient Air Quality Monitoring

Name and Address of Client

M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch,
GUJARAT - 370 435.

Month of Monitoring

February - 2021

Name of Location

Village - Wandh

ID No.

URA/ID/A-21/02/003

Sr. No.	Sampling Date	Concentration in Ambient Air (µg/m³)					
		PM ₁₀ µg/M³	PM _{2.5} µg/M³	Sulphur Dioxide (SO ₂) µg/M³	Nitrogen Dioxide (NO ₂) µg/M³	Ozone (O ₃)µg/M³	Mercury (Hg) µg/M³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/02/2021	72.4	39.5	18.7	18.5		--
2.	05/02/2021	74.7	37.3	17.3	22.9		--
3.	08/02/2021	67.3	29.0	15.9	24.3	19.5	BDL
4.	12/02/2021	80.8	40.3	21.3	25.5		--
5.	15/02/2021	74.7	35.9	20.7	26.9		--
6.	19/02/2021	69.2	39.4	15.2	21.3		--
7.	22/02/2021	66.1	23.8	17.8	19.5		--
8.	26/02/2021	78.6	27.3	23.6	23.0		--
Average		73.0	34.1	18.8	22.8		--

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
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ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
 Certified by Bureau Veritas Certification India Pvt. Ltd.

 GPCB HASTA Accredited
 GPCB HASTA Accredited

 GPCB Recognized Environmental
 Auditor for Gujarat, India

 ISO 9001:2015
 Certified Company

 ISO 14001:2015
 Certified Company

Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
 Village: Tunda & Siracha,
 Tal. Mundra, Dist.: Kutch,
 GUJARAT - 370 435.

Month of Monitoring : January - 2021

Name of Location : Village - Siracha

ID No. : URA/ID/A-21/01/001

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m³)					
		PM ₁₀ µg/M³	PM _{2.5} µg/M³	Sulphur Dioxide (SO ₂) µg/M³	Nitrogen Dioxide (NO ₂) µg/M³	Ozone (O ₃) µg/M³	Mercury (Hg) µg/M³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/01/2021	61.7	22.8	13.7	18.5		--
2.	04/01/2021	60.9	19.7	17.6	20.8		--
3.	08/01/2021	75.0	21.7	11.3	15.2		--
4.	11/01/2021	76.5	31.6	15.3	21.1	15.1	BDL
5.	15/01/2021	60.3	25.7	13.6	24.7		--
6.	18/01/2021	75.2	26.1	10.8	13.7		--
7.	22/01/2021	68.2	23.3	15.4	20.2		
8.	25/01/2021	55.5	23.7	15.8	18.6		--
9.	29/01/2021	68.8	22.9	14.2	16.9		
Average		66.9	24.2	14.2	18.9		--

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method - 3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
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Regd. Office : 215, Royal Arcade, Near G.I.D.C., Office, Char Rasta, Vapi-368 195, Gujarat.

Extended Work Office : G.I.D.C., Dahaj-II, Bhavnagar, Gujarat

CIN : U73120GJ2007PTC051463

Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch,
GUJARAT -- 370 435.

Month of Monitoring : January - 2021

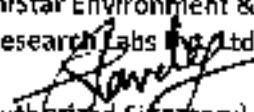
Name of Location : Village - Kandagara

ID No. : URA/ID/A-21/01/002

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m³)					
		PM ₁₀ µg/M³	PM _{2.5} µg/M³	Sulphur Dioxide (SO ₂)µg/M³	Nitrogen Dioxide (NO ₂)µg/M³	Ozone (O ₃)µg/M³	Mercury (Hg) µg/M³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/01/2021	75.4	33.9	18.1	23.6		--
2.	04/01/2021	58.0	27.2	14.7	21.3		--
3.	08/01/2021	78.5	32.4	11.5	17.2		--
4.	11/01/2021	61.1	25.4	20.6	24.3	19.2	BDL
5.	15/01/2021	66.7	29.6	16.5	21.1		--
6.	18/01/2021	53.4	22.5	13.8	18.7		--
7.	22/01/2021	68.7	29.1	17.1	22.6		--
8.	25/01/2021	77.8	24.9	14.9	22.4		--
9.	29/01/2021	68.9	27.2	17.0	23.5		--
Average		67.6	28.0	16.0	21.6		--

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM- IS: 5182 (Part 4), 1999, PM₁₀- IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol 1), SO₂- IS: 5182 (Part 2), 2001, NO_x- IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3117 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.

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Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch,
GUJARAT - 370 435.

Month of Monitoring : January 2021

Name of Location : Village - Wandh

ID No. : URA/ID/A-21/01/003

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/01/2021	78.4	39.6	18.6	20.2		--
2.	04/01/2021	69.4	33.4	12.6	25.3		--
3.	08/01/2021	63.5	26.7	15.4	23.7		--
4.	11/01/2021	84.2	39.0	20.3	25.1	21.8	BDL
5.	15/01/2021	66.6	36.5	19.6	28.0		--
6.	18/01/2021	82.7	40.7	13.1	17.5		--
7.	22/01/2021	63.1	30.7	21.1	28.3		--
8.	25/01/2021	72.9	35.9	22.6	25.2		--
9.	29/01/2021	65.6	34.6	18.9	23.6		
Average		71.8	35.2	18.0	24.1		--

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



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Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
 Village: Tunda & Siracha,
 Tal. Mundra, Dist.: Kutch,
 GUJARAT - 370 435.

Month of Monitoring : December - 2020

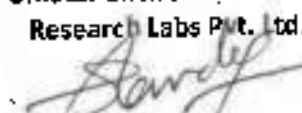
Name of Location : Village - Siracha

ID No. : URA/ID/A-20/12/001

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/12/2020	53.2	24.0	15.8	22.3		--
2.	04/12/2020	63.4	26.0	13.9	20.5		--
3.	08/12/2020	75.7	34.5	18.5	26.2		--
4.	15/12/2020	50.8	25.2	13.4	28.9	19.4	BDL
5.	18/12/2020	45.6	21.7	14.7	21.5		--
6.	21/12/2020	66.8	24.7	18.1	24.5		--
7.	24/12/2020	54.7	31.7	17.4	20.3		--
8.	29/12/2020	64.1	25.7	15.8	18.6		--
Average		59.3	26.7	16.0	22.9		--

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

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 Research Labs Pvt. Ltd.


 (Authorized Signatory)

ISO/IEC 17025:2005 Recognized Environmental
Laboratory under the EPA 1986 (LAW) 17 789633

ISO/IEC 17025:2005 Recognized
Consulting Organization

ISO/IEC 17025:2005 Recognized
Laboratory (Environmental)

ISO 9001:2015
Certified Company

ISO 45001:2018
Certified Company

Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch,
GUJARAT – 370 435.

Month of Monitoring : December - 2020

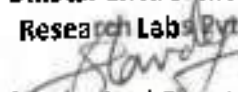
Name of Location : Village - Kandagara

ID No. : URA/ID/A-20/12/002

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^2$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/12/2020	55.5	19.7	13.5	21.2		--
2.	04/12/2020	76.5	29.8	20.6	25.8		--
3.	08/12/2020	72.5	20.6	17.3	20.5		--
4.	15/12/2020	52.9	22.9	14.3	25.2	17.8	BDL
5.	18/12/2020	61.9	19.3	12.3	19.8		--
6.	21/12/2020	58.6	18.4	11.7	16.2		--
7.	24/12/2020	49.0	18.3	12.8	21.3		--
8.	29/12/2020	41.1	14.6	14.9	22.4		--
Average		58.5	20.4	14.7	21.6		--

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM- IS: 5182 (Part 4), 1999, PM₁₀- IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂- IS: 5182 (Part 2), 2001, NO_x- IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.

(Authorized Signatory)

Monthly Average Report
Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch.
GUJARAT – 370 435.

Month of Monitoring : December - 2020

Name of Location : Village - Wandh

ID No. : URA/ID/A-20/12/003

Sr. No.	Sampling Date	Concentration In Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/12/2020	76.2	33.1	14.5	21.8		--
2.	04/12/2020	69.6	26.6	19.7	21.5		--
3.	08/12/2020	74.2	34.7	16.2	20.6		--
4.	15/12/2020	61.4	22.0	18.1	31.2	23.3	BDL
5.	18/12/2020	69.9	28.4	21.5	26.7		--
6.	21/12/2020	83.0	33.0	17.4	23.5		--
7.	24/12/2020	62.7	28.5	23.8	28.4		--
8.	29/12/2020	71.3	32.3	19.2	27.9		--
Average		71.0	29.8	18.8	25.2		--

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

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ISO 14001:2015, ISO 9001:2015, ISO 45001:2018
certified under the CPA 14001:2015 & 9001:2015

CPCB Approved & NABL
Consultant Organization

CPCB Recognized & NABL
Approved & ISO 14001:2015

ISO 9001:2015
Certified Company

ISO 45001:2018
Certified Company

Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch,
GUJARAT - 370 435.

Month of Monitoring : March - 2021

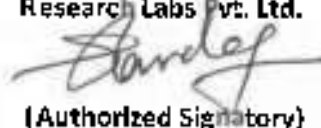
Name of Location : Village - Siracha

ID No. : URA/ID/A-21/03/001

Sr. No.	Sampling Date	Concentration In Ambient Air (µg /m ³)					
		PM ₁₀ µg/M ³	PM _{2.5} µg/M ³	Sulphur Dioxide (SO ₂) µg/M ³	Nitrogen Dioxide (NO ₂) µg/M ³	Ozone (O ₃) µg/M ³	Mercury (Hg) µg/M ³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/03/2021	52.2	24.3	14.7	22.3		--
2.	05/03/2021	63.5	20.2	17.8	25.1		--
3.	08/03/2021	68.2	31.2	12.3	17.5		--
4.	12/03/2021	58.0	24.2	20.5	25.2		--
5.	15/03/2021	71.0	28.4	14.3	19.5		--
6.	19/03/2021	76.9	33.6	19.6	23.4	17.3	BDL
7.	22/03/2021	60.2	24.2	17.2	27.7		--
8.	26/03/2021	78.1	30.1	14.6	22.1		--
9.	30/03/2021	70.8	31.1	12.8	19.5		
Average		66.5	27.5	16.0	22.5		

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

ISO 17020 (GSI) Recognized Environmental
 Laboratory under the EPA-1861/2019 on 03.08.2021

 Gujarat EPA Recognized as
 Compliance Organization

 GSI Recognized for testing of
 Air & Water (GSI No. 111)

 ISO 9001:2015
 Certified Company

 ISO 14001:2015
 Certified Company

Monthly Average Report

Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
 Village: Tunda & Siracha,
 Tal. Mundra, Dist.: Kutch.
 GUJARAT - 370 435.

Month of Monitoring : March - 2021

Name of Location : Village - Kandagara

ID No. : URA/ID/A-21/03/002

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/03/2021	72.4	22.5	18.5	21.7		--
2.	05/03/2021	63.6	26.4	16.8	15.3		--
3.	08/03/2021	57.6	22.6	20.0	22.5		--
4.	12/03/2021	66.3	27.7	10.5	18.7		--
5.	15/03/2021	79.5	29.4	21.3	24.2		--
6.	19/03/2021	61.7	23.4	14.8	20.5	21.3	BDL
7.	22/03/2021	57.3	20.7	17.2	23.7		--
8.	26/03/2021	78.2	24.8	18.4	22.8		--
9.	30/03/2021	68.0	31.0	13.6	20.5		--
Average		67.2	25.4	16.8	21.1		--

Remark: Calibrated equipment & Instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM- IS: 5182 (Part 4), 1999, PM₁₀- IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂- IS: 5182 (Part 2), 2001, NO_x- IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

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MOEF&G.O. (Poll.) Regd. No.: P-1709/2017
Chemistry under the MoEF (G.O.) No. 1709/2017

Go. Multi Accredited by
Consultant Organization

CPCB Registered Environment
Pollution (Schedule II)

S.O. No.: 2313
Pollution Control

S.O. No.: 2313
Pollution Control

Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist. Kutch.
GUJARAT - 370 435.

Month of Monitoring : March - 2021

Name of Location : Village - Wandh

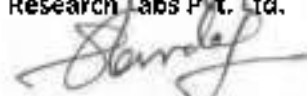
ID No. : URA/ID/A-21/03/003

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m³)					
		PM ₁₀ µg/M³	PM _{2.5} µg/M³	Sulphur Dioxide (SO ₂) µg/M³	Nitrogen Dioxide (NO ₂) µg/M³	Ozone (O ₃)µg/M³	Mercury (Hg) µg/M³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/03/2021	70.7	39.0	17.5	24.6		--
2.	05/03/2021	83.9	43.2	21.6	26.9		--
3.	08/03/2021	67.4	30.1	23.8	19.4		--
4.	12/03/2021	74.0	33.5	18.5	22.7		--
5.	15/03/2021	62.0	28.4	16.2	24.5		--
6.	19/03/2021	78.5	33.4	20.6	27.4	25.7	BDL
7.	22/03/2021	61.2	24.5	18.3	25.7		--
8.	26/03/2021	64.2	22.5	15.3	20.8		--
9.	30/03/2021	79.3	35.1	19.4	23.6		--
Average		71.3	32.2	19.0	24.0		--

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method - 3112 B APHA 22 Edlson & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Monthly Average Report
Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch,
GUJARAT - 370 435.

Month of Monitoring : November - 2020

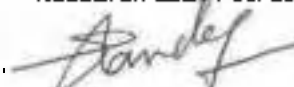
Name of Location : Village - Siracha

ID No. : URA/IO/A-20/11/001

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m ³)					
		PM ₁₀ (µg/M ³)	PM _{2.5} (µg/M ³)	Sulphur Dioxide (SO ₂) (µg/M ³)	Nitrogen Dioxide (NO ₂) (µg/M ³)	Ozone (O ₃) (µg/M ³)	Mercury (Hg) (µg/M ³)
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	03/11/2020	56.4	23.4	19.3	30.3		--
2.	06/11/2020	74.5	21.2	20.7	19.0		--
3.	10/11/2020	52.6	27.7	16.3	27.6	17.3	BDL
4.	13/11/2020	54.6	23.8	19.5	22.7		--
5.	17/11/2020	57.8	33.7	13.9	17.7		--
6.	20/11/2020	70.1	28.8	15.1	20.2		--
7.	24/11/2020	57.0	24.5	13.9	23.5		--
8.	27/11/2020	43.1	20.9	18.2	24.8		--
Average		62.0	25.5	17.1	23.2		--

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by V&A Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.


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Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Ta. Mundra, Dist.: Kutch.
GUJARAT – 370 435.

Month of Monitoring : November 2020

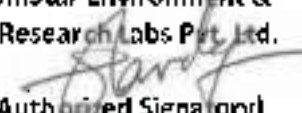
Name of Location : Village - Kandagara

ID No. : URA/ID/A-20/11/002

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m ³)					
		PM ₁₀ µg/M ³	PM _{2.5} µg/M ³	Sulphur Dioxide (SO ₂)µg/M ³	Nitrogen Dioxide (NO ₂)µg/M ³	Ozone (O ₃)µg/M ³	Mercury (Hg) µg/M ³
GPCB Permissible Limit (1WA for 24 hrs.)		100	60	80	80	100	N.A.
1.	03/11/2020	47.4	18.0	16.8	28.9		--
2.	06/11/2020	64.5	26.8	12.2	16.9		—
3.	10/11/2020	54.9	22.1	18.2	25.1	14.2	BDL
4.	13/11/2020	63.9	20.5	13.5	18.2		--
5.	17/11/2020	54.4	25.7	17.5	22.1		--
6.	20/11/2020	72.0	22.9	18.6	19.5		--
7.	24/11/2020	50.2	22.3	15.1	27.4		--
8.	27/11/2020	51.1	26.8	17.9	25.8		—
Average		59.8	23.1	16.2	23.0		—

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM— IS: 5182 (Part 4), 1993, PM₁₀— IS: 5182 (Part 23), 2006, PM_{2.5}— Guidelines by CPCB (Vol 1), SO₂— IS: 5182 (Part 2), 2001, NO_x— IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method 3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS— 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.

(Authorized Signatory)

Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch,
GUJARAT – 370 435.

Month of Monitoring : November - 2020

Name of Location : Village - Wandh


ID No. : URA/ID/A-20/11/003

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m³)					
		PM ₁₀ µg/M³	PM _{2.5} µg/M³	Sulphur Dioxide (SO ₂) µg/M³	Nitrogen Dioxide (NO ₂) µg/M³	Ozone (O ₃) µg/M³	Mercury (Hg) µg/M³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	03/11/2020	17.8	28.1	23.4	24.2		--
2.	06/11/2020	64.4	20.6	15.2	21.4		--
3.	10/11/2020	70.8	29.0	20.3	30.1	20.3	BDL
4.	13/11/2020	63.3	24.4	22.6	24.0		--
5.	17/11/2020	85.7	35.3	19.2	25.3		--
6.	20/11/2020	57.7	27.1	22.7	23.6		--
7.	24/11/2020	60.6	26.3	21.5	19.4		--
8.	27/11/2020	72.6	30.3	18.8	23.8		--
Average		69.1	27.6	20.5	24.0		--

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edisn & Hg: 2 ppb O₃: IS: 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.


(Authorized Signatory)

Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch.
GUJARAT – 370 435.

Month of Monitoring : October - 2020

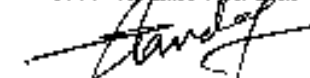
Name of Location : Village - Siracha

ID No. : URA/10/A-20/10/001

Sr. No.		Sampling Date	Concentration in Ambient Air (µg /m ³)					
			PM ₁₀ µg/M ³	PM _{2.5} µg/M ³	Sulphur Dioxide [SO ₂]µg/M ³	Nitrogen Dioxide (NO ₂)µg/M ³	Ozone (O ₃)µg/M ³	Mercury (Hg) µg/M ³
GPCB Permissible Limit (TWA for 24 hrs.)			100	60	80	80	100	N.A.
1.	02/10/2020	70.6	28.0	21.2	14.3		--	
2.	05/10/2020	60.2	35.9	18.4	25.6		--	
3.	09/10/2020	71.5	15.7	15.0	13.7		--	
4.	13/10/2020	58.9	18.0	14.6	18.2	16.1	BDL	
5.	20/10/2020	50.8	26.7	11.5	11.7		--	
6.	23/10/2020	42.5	16.7	13.9	19.5		--	
7.	27/10/2020	51.8	28.9	16.3	22.1		--	
8.	30/10/2020	58.3	21.4	20.8	21.3		--	
Average			58.1	23.9	16.5	18.3	--	

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 21 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Monthly Average Report Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch.
GUJARAT – 370 435.

Month of Monitoring : October - 2020

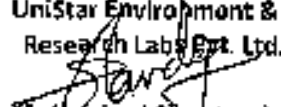
Name of Location : Village - Kandagara

ID No. : URA/10/A-20/10/002

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g} / \text{m}^3$)					
		PM ₁₀ $\mu\text{g} / \text{M}^3$	PM _{2.5} $\mu\text{g} / \text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g} / \text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g} / \text{M}^3$	Ozone (O ₃) $\mu\text{g} / \text{M}^3$	Mercury (Hg) $\mu\text{g} / \text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	02/10/2020	59.7	22.9	12.7	15.4		--
2.	06/10/2020	66.5	28.5	18.2	13.3		--
3.	09/10/2020	74.9	35.1	22.6	15.1		--
4.	13/10/2020	58.2	20.1	15.7	22.4	17.3	BDL
5.	20/10/2020	43.5	17.7	13.2	15.8		--
6.	23/10/2020	61.8	24.3	14.7	20.3		--
7.	27/10/2020	52.3	20.3	16.3	24.8		--
8.	30/10/2020	61.1	24.8	17.2	14.6		--
Average		59.7	24.2	16.3	17.7		--

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM- IS: 5182 (Part 4), 1999, PM₁₀- IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂- IS: 5182 (Part 2), 2001, NO_x- IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method - 3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS- 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.

(Authorized Signatory)

Monthly Average Report
Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracna,
Tal. Mundra, Dist.: Kutch.
GUJARAT – 370 435.

Month of Monitoring : October - 2020

Name of Location : Village - Warden

ID No. : URA/ID/A-20/10/003

Sr. No.		Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)				
			PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	02/10/2020	71.8	36.6	21.1	17.4		--
2.	06/10/2020	68.9	32.1	19.3	14.4		--
3.	09/10/2020	52.7	38.6	18.3	25.1		--
4.	13/10/2020	82.8	35.0	23.8	18.6	19.8	BDL
5.	20/10/2020	62.9	27.7	18.5	20.7		--
6.	23/10/2020	60.0	24.3	16.2	15.8		--
7.	27/10/2020	54.9	20.7	18.4	19.3		--
8.	30/10/2020	66.8	29.0	21.6	22.4		--
Average		65.0	30.5	19.7	19.2		--

Remark: Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 22), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method 3112 B APHA 22 Ldison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.


(Authorized Signatory)

TEST REPORT (STACK MONITORING)

ULR - TC775321000003964F			
Test Report No.	URA/21/03/S-115	Report Issue Date	31/03/2021
Service Request form No.	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.	URA/ID/S-21/03/115	Field Data Sheet No.	URA/FDS/S-21/03/115
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/03/2021	Date of Testing	26/03/2021
Stack Sampling Attached to	D. G. Set 500 KVA (5 - 3)		
Air Pollution Control Device	---		
Fuel Used	Diesel		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, V551	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	10
2.	Stack Dia	mm	200
3.	Stack Area	m ²	0.0314
4.	Ambient Temperature	°C	34
5.	Flue Gas Temperature	°C	265
6.	Exit Gas Velocity	m/s	17.27
7.	Exit Gas Flow	m ³ /h	1952

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	36	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	21	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	15	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

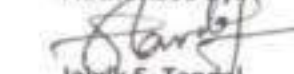
***** End of Report *****

Checked By:


 Nikunj D. Patel
 (Chemist)

Page No.: 1 of 1

Authorized By:


 Jalvik S. Tandel
 (Manager - Operations)
 UERL/AIR/F-04/04

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT
(STACK MONITORING)

ULR - TC775321000002555F			
Test Report No.	URA/21/02/5-100	Report Issue Date	01/03/2021
Service Request form No.	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.	URA/ID/5-21/02/100	Field Data Sheet No.	URA/FDS/5-21/02/100
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	22/02/2021	Date of Testing	23/02/2021
Stack Sampling Attached to	D. G. Set 500 KVA (5 - 3)		
Air Pollution Control Device	---		
Fuel Used	Diesel		

➤ **Details of Instrument Used for Monitoring**

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ **General Stack Monitoring Observation**

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	10
2.	Stack Dia	mm	200
3.	Stack Area	m ²	0.0314
4.	Ambient Temperature	°C	32
5.	Flue Gas Temperature	°C	271
6.	Exit Gas Velocity	m/s	17.83
7.	Exit Gas Flow	m ³ /h	2015

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	42	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	24	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	18	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

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

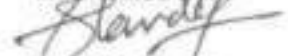
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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
(Manager - Operations)
UURL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000001454F			
Test Report No.	URA/21/01/S-131	Report Issue Date	02/02/2021
Service Request form No.	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.	URA/ID/S-21/01/131	Field Data Sheet No.	URA/FDS/S-21/01/131
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	28/01/2021	Date of Testing	29/01/2021
Stack Sampling Attached to	D. G. Set 500 KVA (S - 3)		
Air Pollution Control Device	---		
Fuel Used	Diesel		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	10
2.	Stack Dia	mm	200
3.	Stack Area	m ²	0.0314
4.	Ambient Temperature	°C	28
5.	Flue Gas Temperature	°C	285
6.	Exit Gas Velocity	m/s	18.67
7.	Exit Gas Flow	m ³ /h	2110

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	47	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	28	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	20	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

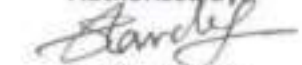
***** End of Report *****

Checked By:


 Nikunj D. Patel
 (Chemist)

Page No.: 1 of 1

Authorized By:


 Jaivik S. Tandel
 (Manager - Operations)
 UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000000121F			
Test Report No.	URA/20/12/S-116	Report Issue Date	02/01/2021
Service Request form No.	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.	URA/ID/S-20/12/116	Field Data Sheet No.	URA/FDS/S-20/12/116
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist : Kutch, Gujarat - 370421, INDIA		
Date of Sampling	28/12/2020	Date of Testing	29/12/2020
Stack Sampling Attached to	D. G. Set 500 KVA (S - 3)		
Air Pollution Control Device	---		
Fuel Used	Diesel		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	10
2.	Stack Dia	mm	200
3.	Stack Area	m ²	0.0314
4.	Ambient Temperature	°C	30
5.	Flue Gas Temperature	°C	278
6.	Exit Gas Velocity	m/s	18.12
7.	Exit Gas Flow	m ³ /h	2048


Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	40	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	24	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	18	50	IS 11255 (PART 7)

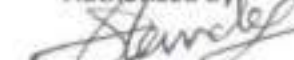
Remarks:
Opinion & Interpretation (if required):

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

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Nikunj D. Patel
(Chemist)
Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UURL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010989F			
Test Report No.	URA/20/11/S-096	Report Issue Date	01/12/2020
Service Request form No.	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.	URA/ID/S-20/11/096	Field Data Sheet No.	URA/FDS/S-20/11/096
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/11/2020	Date of Testing	27/11/2020
Stack Sampling Attached to	D. G. Set 500 KVA (S - 3)		
Air Pollution Control Device	-		
Fuel Used	Diesel		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	10
2.	Stack Dia.	mm	200
3.	Stack Area	m ²	0.0314
4.	Ambient Temperature	°C	32
5.	Flue Gas Temperature	°C	285
6.	Exit Gas Velocity	m/s	18.52
7.	Exit Gas Flow	m ³ /h	2093

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	45	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	27	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	21	50	IS 11255 (PART 7)

Remarks:

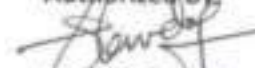
Opinion & Interpretation (if required):

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

Checked By:


Nikunj D. Patel
(Chemist)

Authorized By:


Jaivik S. Tandel
(Manager - Operations)

Page No.: 1 of 1

UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010017F			
Test Report No.	URA/20/10/5-119	Report Issue Date	31/10/2020
Service Request form No.	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.	URA/ID/5-20/10/119	Field Data Sheet No.	URA/FDS/5-20/10/119
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/10/2020	Date of Testing	27/10/2020
Stack Sampling Attached to	D. G. Set 500 KVA (S - 3)		
Air Pollution Control Device	-		
Fuel Used	Diesel		

➤ Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VS51	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	10
2.	Stack Dia	mm	200
3.	Stack Area	m ²	0.0314
4.	Ambient Temperature	°C	31
5.	Flue Gas Temperature	°C	294
6.	Exit Gas Velocity	m/s	19.26
7.	Exit Gas Flow	m ³ /h	2177

➤ Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	50	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	31	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	24	50	IS 11255 (PART 7)

Remarks:
Opinion & Interpretation (if required):

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

Checked By:

Nikunj D. Patel
(Chemist)

Authorized By:

Jaivik S. Tandel
(Manager - Operations)

Page No.: 1 of 1

UURL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000003960F			
Test Report No.	URA/21/03/5-111	Report Issue Date	31/03/2021
Service Request form No.	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.	URA/ID/5-21/03/111	Field Data Sheet No.	URA/FDS/5-21/03/111
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/03/2021	Date of Testing	26/03/2021
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Coal		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	34
5.	Flue Gas Temperature	°C	134
6.	Exit Gas Velocity	m/s	6.14
7.	Exit Gas Flow	m ³ /h	29323

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	42	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	25	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	18	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

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

Checked By:

Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:

Jalvik S. Tandel
(Manager - Operations)
UURL/AIR/F-04/04

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**TEST REPORT
(STACK MONITORING)**

ULR - TC775321000002551F			
Test Report No.	URA/21/02/S-096	Report Issue Date	01/03/2021
Service Request form No.	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.	URA/ID/S-21/02/096	Field Data Sheet No.	URA/FDS/S-21/02/096
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	22/02/2021	Date of Testing	23/02/2021
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Coal		

➤ **Details of Instrument Used for Monitoring**

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ **General Stack Monitoring Observation**

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	32
5.	Flue Gas Temperature	°C	129
6.	Exit Gas Velocity	m/s	5.47
7.	Exit Gas Flow	m ³ /h	26123

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	38	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	20	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	15	50	IS 11255 (PART 7)

Remarks:
Opinion & Interpretation (if required):

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

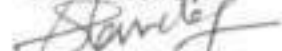
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Nikunj D. Patel
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Authorized By:



Jaivik S. Tandel
(Manager - Operations)
UURL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000001450F			
Test Report No.	URA/21/01/5-127	Report Issue Date	02/02/2021
Service Request form No.	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.	URA/ID/5-21/01/127	Field Data Sheet No.	URA/FDS/5-21/01/127
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	27/01/2021	Date of Testing	28/01/2021
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Coal		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	28
5.	Flue Gas Temperature	°C	137
6.	Exit Gas Velocity	m/s	5.70
7.	Exit Gas Flow	m ³ /h	27221

Test Parameter Results

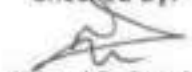
DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	36	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	24	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	18	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

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

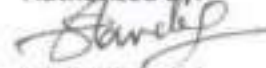
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Nikunj D. Patel
(Chemist)

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Authorized By:



Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000000117F			
Test Report No.	URA/20/12/S-112	Report Issue Date	02/01/2021
Service Request form No.	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.	URA/ID/S-20/12/112	Field Data Sheet No.	URA/FDS/S-20/12/112
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	28/12/2020	Date of Testing	29/12/2020
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Coal		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	30
5.	Flue Gas Temperature	°C	142
6.	Exit Gas Velocity	m/s	6.04
7.	Exit Gas Flow	m ³ /h	28845

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	41	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	30	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	22	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

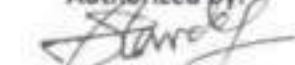
***** End of Report *****

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Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010985F			
Test Report No.	URA/20/11/5-092	Report Issue Date	01/12/2020
Service Request form No.	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.	URA/ID/S-20/11/092	Field Data Sheet No.	URA/FDS/S-20/11/092
Name & Add. Of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/11/2020	Date of Testing	26/11/2020
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Coal		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	32
5.	Flue Gas Temperature	°C	140
6.	Exit Gas Velocity	m/s	5.68
7.	Exit Gas Flow	m ³ /h	27126

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	39	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	27	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	18	50	IS 11255 (PART 7)

Remarks:

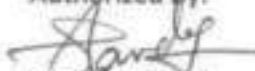
Opinion & Interpretation (if required):

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

Checked By:


Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
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UURL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010022F			
Test Report No.	URA/20/10/S-124	Report Issue Date	31/10/2020
Service Request form No.	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.	URA/ID/S-20/10/124	Field Data Sheet No.	URA/FDS/S-20/10/124
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	27/10/2020	Date of Testing	28/10/2020
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Coal		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	31
5.	Flue Gas Temperature	°C	142
6.	Exit Gas Velocity	m/s	5.91
7.	Exit Gas Flow	m ³ /h	28224

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	43	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	32	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	21	50	IS 11255 (PART 7)

Remarks:

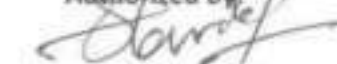
Opinion & Interpretation (if required):

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

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Nikunj D. Patel
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TEST REPORT (STACK MONITORING)

URL - TC775321000003963F			
Test Report No.	URA/21/03/5-114	Report Issue Date	31/03/2021
Service Request form No.	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.	URA/ID/5-21/03/114	Field Data Sheet No.	URA/FDS/5-21/03/114
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/03/2021	Date of Testing	26/03/2021
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	34
5.	Flue Gas Temperature	°C	133
6.	Exit Gas Velocity	m/s	5.84
7.	Exit Gas Flow	m ³ /h	27890

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	39	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	27	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	20	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (If required):

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

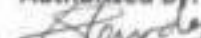
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(Manager - Operations)
UERL/AIR/F-04/04

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**TEST REPORT
(STACK MONITORING)**

ULR - TC775321000002554F			
Test Report No.	URA/21/02/S-099	Report Issue Date	01/03/2021
Service Request form No.	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.	URA/ID/S-21/02/099	Field Data Sheet No.	URA/FDS/S-21/02/099
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	22/02/2021	Date of Testing	23/02/2021
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	32
5.	Flue Gas Temperature	°C	136
6.	Exit Gas Velocity	m/s	6.20
7.	Exit Gas Flow	m ³ /h	29609

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	44	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	31	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	26	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

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

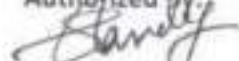
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 UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000001453F			
Test Report No.	URA/21/01/S-130	Report Issue Date	02/02/2021
Service Request form No.	URA/SRF/01/D61	Service Request Date	27/01/2021
Sample ID No.	URA/ID/S-21/01/130	Field Data Sheet No.	URA/FDS/S-21/01/130
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist : Kutch, Gujarat - 370421, INDIA		
Date of Sampling	27/01/2021	Date of Testing	28/01/2021
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia.	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	28
5.	Flue Gas Temperature	°C	143
6.	Exit Gas Velocity	m/s	6.61
7.	Exit Gas Flow	m ³ /h	31567

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	41	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	29	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	24	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

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

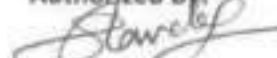
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TEST REPORT (STACK MONITORING)

ULR - TC775321000000120F			
Test Report No.	URA/20/12/S-115	Report Issue Date	02/01/2021
Service Request form No.	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.	URA/ID/S-20/12/115	Field Data Sheet No.	URA/FDS/S-20/12/115
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	28/12/2020	Date of Testing	29/12/2020
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	30
5.	Flue Gas Temperature	°C	135
6.	Exit Gas Velocity	m/s	6.97
7.	Exit Gas Flow	m ³ /h	33287

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	44	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	33	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	25	50	IS 11255 (PART 7)

Remarks:

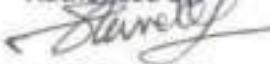
Opinion & Interpretation (if required):

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

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Nikunj D. Patel
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Jaivik S. Tandel
(Manager - Operations)
UURL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010988F			
Test Report No.	URA/20/11/S-095	Report Issue Date	01/12/2020
Service Request form No.	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.	URA/ID/S-20/11/095	Field Data Sheet No.	URA/FDS/S-20/11/095
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/11/2020	Date of Testing	26/11/2020
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	32
5.	Flue Gas Temperature	°C	134
6.	Exit Gas Velocity	m/s	6.90
7.	Exit Gas Flow	m ³ /h	32952

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	41	150	IS 11255 (Part 1)
2.	Sulphur Dioxide	ppm	31	100	IS 11255 (Part 2)
3.	Oxide of Nitrogen	ppm	22	50	IS 11255 (PART 7)

Remarks:

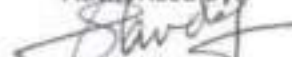
Opinion & Interpretation (if required):

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

Checked By:


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Jaivik S. Tandel
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TEST REPORT (STACK MONITORING)

ULR - TC775320000010025F			
Test Report No.	URA/20/10/S-127	Report Issue Date	31/10/2020
Service Request form No.	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.	URA/10/S-20/10/127	Field Data Sheet No.	URA/FDS/S-20/10/127
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	27/10/2020	Date of Testing	28/10/2020
Stack Sampling Attached to	Boiler (S - 1)		
Air Pollution Control Device	Bag Filter		
Fuel Used	Furnace Oil		

➤ Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	1300
3.	Stack Area	m ²	1.3266
4.	Ambient Temperature	°C	31
5.	Flue Gas Temperature	°C	130
6.	Exit Gas Velocity	m/s	6.41
7.	Exit Gas Flow	m ³ /h	30612

➤ Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	38	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	26	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	18	50	IS 11255 (PART 7)

Remarks:

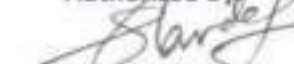
Opinion & Interpretation (if required):

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

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Nikunj D. Patel
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Jaivik S. Tandel
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**TEST REPORT
(STACK MONITORING)**

ULR - TC775321000003961F			
Test Report No.	URA/21/03/5-112	Report Issue Date	31/03/2021
Service Request form No.	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.	URA/ID/5-21/03/112	Field Data Sheet No.	URA/FDS/5-21/03/112
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/03/2021	Date of Testing	26/03/2021
Stack Sampling Attached to	Thermic Fluid Heater- 4 Lac Kcal/Hr. (S - 2)		
Air Pollution Control Device	-		
Fuel Used	Furnace Oil		

➤ **Details of Instrument Used for Monitoring**

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ **General Stack Monitoring Observation**

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	800
3.	Stack Area	m ²	0.5024
4.	Ambient Temperature	°C	34
5.	Flue Gas Temperature	°C	140
6.	Exit Gas Velocity	m/s	6.67
7.	Exit Gas Flow	m ³ /h	12063

➤ **Test Parameter Results**


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	40	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	28	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	22	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

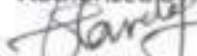
***** End of Report *****

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**TEST REPORT
(STACK MONITORING)**

ULR - TC775321000002552F			
Test Report No.	URA/21/02/S-097	Report Issue Date	01/03/2021
Service Request form No.	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.	URA/ID/S-21/02/097	Field Data Sheet No.	URA/FDS/S-21/02/097
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	22/02/2021	Date of Testing	23/02/2021
Stack Sampling Attached to	Thermic Fluid Heater- 4 Lac Kcal/Hr. (S - 2)		
Air Pollution Control Device	-		
Fuel Used	Furnace Oil		

➤ **Details of Instrument Used for Monitoring**

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ **General Stack Monitoring Observation**

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	800
3.	Stack Area	m ²	0.5024
4.	Ambient Temperature	°C	32
5.	Flue Gas Temperature	°C	134
6.	Exit Gas Velocity	m/s	6.05
7.	Exit Gas Flow	m ³ /h	10942

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	37	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	25	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	19	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

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

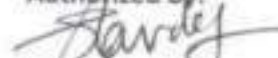
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TEST REPORT (STACK MONITORING)

ULR - TC775321000001451F			
Test Report No.	URA/21/01/S-128	Report Issue Date	02/02/2021
Service Request form No.	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.	URA/ID/S-21/01/128	Field Data Sheet No.	URA/FDS/S-21/01/128
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist : Kutch, Gujarat - 370421, INDIA		
Date of Sampling	27/01/2021	Date of Testing	28/01/2021
Stack Sampling Attached to	Thermic Fluid Heater- 4 Lac Kcal/Hr. (S - 2)		
Air Pollution Control Device	-		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	800
3.	Stack Area	m ²	0.5024
4.	Ambient Temperature	°C	28
5.	Flue Gas Temperature	°C	130
6.	Exit Gas Velocity	m/s	6.33
7.	Exit Gas Flow	m ³ /h	11448

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	34	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	22	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	15	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

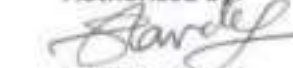
***** End of Report *****

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Nikunj D. Patel
(Chemist)

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Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-04/04

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT (STACK MONITORING)

ULR - TC775321000000118F			
Test Report No.	URA/20/12/S-113	Report Issue Date	02/01/2021
Service Request form No.	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.	URA/ID/S-20/12/113	Field Data Sheet No.	URA/FDS/S-20/12/113
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	28/12/2020	Date of Testing	29/12/2020
Stack Sampling Attached to	Thermic Fluid Heater- 4 Lac Kcal/Hr. (S - 2)		
Air Pollution Control Device	-		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	800
3.	Stack Area	m ²	0.5024
4.	Ambient Temperature	°C	30
5.	Flue Gas Temperature	°C	133
6.	Exit Gas Velocity	m/s	6.64
7.	Exit Gas Flow	m ³ /h	12009

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	37	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	25	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	17	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

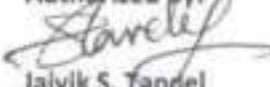
***** End of Report *****

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Nikunj D. Patel
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Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010986F			
Test Report No.	URA/20/11/5-093	Report Issue Date	01/12/2020
Service Request form No.	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.	URA/ID/5-20/11/093	Field Data Sheet No.	URA/FDS/5-20/11/093
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/11/2020	Date of Testing	26/11/2020
Stack Sampling Attached to	Thermic Fluid Heater- 4 Lac Kcal/Hr. (S - 2)		
Air Pollution Control Device	--		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	800
3.	Stack Area	m ²	0.5024
4.	Ambient Temperature	°C	32
5.	Flue Gas Temperature	°C	135
6.	Exit Gas Velocity	m/s	6.97
7.	Exit Gas Flow	m ³ /h	12606

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	43	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	30	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	21	50	IS 11255 (PART 7)

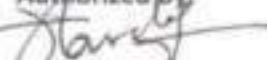
Remarks:
Opinion & Interpretation (if required):

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Nikunj D. Patel
(Chemist)

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010023F			
Test Report No.	URA/20/10/S-125	Report Issue Date	31/10/2020
Service Request form No.	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.	URA/10/S-20/10/125	Field Data Sheet No.	URA/FDS/5-20/10/125
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	27/10/2020	Date of Testing	28/10/2020
Stack Sampling Attached to	Thermic Fluid Heater- 4 Lac Kcal/Hr. (S - 2)		
Air Pollution Control Device	-		
Fuel Used	Furnace Oil		

➤ Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	38
2.	Stack Dia	mm	800
3.	Stack Area	m ²	0.5024
4.	Ambient Temperature	°C	31
5.	Flue Gas Temperature	°C	134
6.	Exit Gas Velocity	m/s	6.59
7.	Exit Gas Flow	m ³ /h	11918

➤ Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	40	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	26	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	17	50	IS 11255 (PART 7)

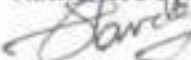
Remarks:
Opinion & Interpretation (if required):

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

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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandell
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**TEST REPORT
(STACK MONITORING)**

ULR - TC775321000003962F			
Test Report No.	URA/21/03/S-113	Report Issue Date	31/03/2021
Service Request form No.	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.	URA/ID/S-21/03/113	Field Data Sheet No.	URA/FDS/S-21/03/113
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/03/2021	Date of Testing	26/03/2021
Stack Sampling Attached to	Thermic Fluid Heater- 15 Lac Kcal/Hr. (5 - 8)		
Air Pollution Control Device	--		
Fuel Used	Furnace Oil		

➤ **Details of Instrument Used for Monitoring**

Instrument Id No.	UERL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ **General Stack Monitoring Observation**

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	36
2.	Stack Dia	mm	856
3.	Stack Area	m ²	0.5751
4.	Ambient Temperature	°C	34
5.	Flue Gas Temperature	°C	135
6.	Exit Gas Velocity	m/s	6.30
7.	Exit Gas Flow	m ³ /h	13043

➤ **Test Parameter Results**


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	34	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	23	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	16	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

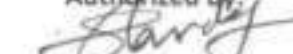
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TEST REPORT (STACK MONITORING)

ULR - TC775321000002553F			
Test Report No.	URA/21/02/S-098	Report Issue Date	01/03/2021
Service Request form No.	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.	URA/ID/S-21/02/098	Field Data Sheet No.	URA/FDS/S-21/02/098
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	22/02/2021	Date of Testing	23/02/2021
Stack Sampling Attached to	Thermic Fluid Heater- 15 Lac Kcal/Hr. (S - 8)		
Air Pollution Control Device	—		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	36
2.	Stack Dia	mm	856
3.	Stack Area	m ²	0.5751
4.	Ambient Temperature	°C	32
5.	Flue Gas Temperature	°C	142
6.	Exit Gas Velocity	m/s	6.71
7.	Exit Gas Flow	m ³ /h	13892

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	40	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	28	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	23	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

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

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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
(Manager - Operations)
UURL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000001452F			
Test Report No.	URA/21/01/S-129	Report Issue Date	02/02/2021
Service Request form No.	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.	URA/ID/S-21/01/129	Field Data Sheet No.	URA/FDS/S-21/01/129
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	27/01/2021	Date of Testing	28/01/2021
Stack Sampling Attached to	Thermic Fluid Heater- 15 Lac Kcal/Hr. (5 - 8)		
Air Pollution Control Device	---		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	36
2.	Stack Dia	mm	856
3.	Stack Area	m ²	0.5751
4.	Ambient Temperature	°C	28
5.	Flue Gas Temperature	°C	139
6.	Exit Gas Velocity	m/s	6.94
7.	Exit Gas Flow	m ³ /h	14368

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	40	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	27	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	22	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

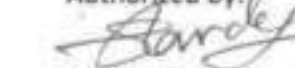
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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
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UURL/AIR/F-04/04

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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. Dahaji, Bharuch, Gujarat.

City : Vapi

TEST REPORT (STACK MONITORING)

ULR - TC775321000000119F			
Test Report No.	URA/20/12/S-114	Report Issue Date	02/01/2021
Service Request form No.	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.	URA/ID/5-20/12/114	Field Data Sheet No.	URA/FDS/5-20/12/114
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	28/12/2020	Date of Testing	29/12/2020
Stack Sampling Attached to Air Pollution Control Device	Thermic Fluid Heater- 15 Lac Kcal/Hr. (S - 8)		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	36
2.	Stack Dia	mm	856
3.	Stack Area	m ²	0.5751
4.	Ambient Temperature	°C	30
5.	Flue Gas Temperature	°C	130
6.	Exit Gas Velocity	m/s	6.28
7.	Exit Gas Flow	m ³ /h	13001

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	42	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	28	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	20	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

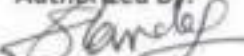
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UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010987F			
Test Report No.	URA/20/11/5-094	Report Issue Date	01/12/2020
Service Request form No.	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.	URA/ID/5-20/11/094	Field Data Sheet No.	URA/FDS/5-20/11/094
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/11/2020	Date of Testing	26/11/2020
Stack Sampling Attached to	Thermic Fluid Heater- 15 Lac Kcal/Hr. (5 - 8)		
Air Pollution Control Device	-		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	36
2.	Stack Dia	mm	856
3.	Stack Area	m ²	0.5751
4.	Ambient Temperature	°C	32
5.	Flue Gas Temperature	°C	126
6.	Exit Gas Velocity	m/s	6.07
7.	Exit Gas Flow	m ³ /h	12567

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	37	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	26	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	17	50	IS 11255 (PART 7)

Remarks:

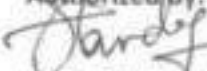
Opinion & Interpretation (if required):

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

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Nikunj D. Patel
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Jaivik S. Tandel
(Manager - Operations)

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010024F			
Test Report No.	URA/20/10/S-126	Report Issue Date	31/10/2020
Service Request form No.	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.	URA/ID/S-20/10/126	Field Data Sheet No.	URA/FDS/S-20/10/126
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	27/10/2020	Date of Testing	28/10/2020
Stack Sampling Attached to Air Pollution Control Device	Thermic Fluid Heater- 15 Lac Kcal/Hr. (5 - 8)		
Fuel Used	Furnace Oil		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VS51	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	36
2.	Stack Dia	mm	856
3.	Stack Area	m ²	0.5751
4.	Ambient Temperature	°C	31
5.	Flue Gas Temperature	°C	129
6.	Exit Gas Velocity	m/s	5.91
7.	Exit Gas Flow	m ³ /h	12235

Test Parameter Results

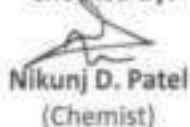
DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit	Test Method
1.	Particulate Matter	mg/Nm ³	36	150	IS 11255(Part 1)
2.	Sulphur Dioxide	ppm	23	100	IS 11255(Part 2)
3.	Oxide of Nitrogen	ppm	15	50	IS 11255 (PART 7)

Remarks:

Opinion & Interpretation (if required):

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

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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
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**TEST REPORT
(STACK MONITORING)**

ULR - TC775321000003969F			
Test Report No.	URA/21/03/S-120	Report Issue Date	31/03/2021
Service Request form No.	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.	URA/ID/S-21/03/120	Field Data Sheet No.	URA/FDS/S-21/03/120
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/03/2021	Date of Testing	26/03/2021
Stack Sampling Attached to	Alkali Scrubber of TiCl ₄ Storage Tank (S - 4)		

➤ **Details of Instrument Used for Monitoring**

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, V551	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ **General Stack Monitoring Observation**

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	11.13
5.	Exit Gas Flow	m ³ /h	705
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30


➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrochloric Acid (as HCl)	mg/Nm ³	1.6	20


Remarks:
Opinion & Interpretation (if required):

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

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Nikunj D. Patel
(Chemist)
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TEST REPORT
(STACK MONITORING)

ULR - TC775321000002560F			
Test Report No.	URA/21/02/S-105	Report Issue Date	01/03/2021
Service Request form No.	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.	URA/ID/S-21/02/105	Field Data Sheet No.	URA/FDS/S-21/02/105
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sex, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	23/02/2021	Date of Testing	24/02/2021
Stack Sampling Attached to	Alkali Scrubber of TiCl_4 Storage Tank (S - 4)		

➤ **Details of Instrument Used for Monitoring**

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ **General Stack Monitoring Observation**

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m^2	0.0176
4.	Exit Gas Velocity	m/s	11.46
5.	Exit Gas Flow	m^3/h	726
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

➤ **Test Parameter Results**


Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrochloric Acid (as HCl)	mg/Nm^3	2.7	20

Remarks:

Opinion & Interpretation (if required):

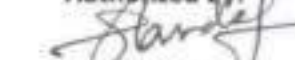
***** End of Report *****

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Nikunj D. Patel
(Chemist)

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Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000001459F			
Test Report No.	URA/21/01/S-136	Report Issue Date	02/02/2021
Service Request form No.	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.	URA/ID/S-21/01/136	Field Data Sheet No.	URA/FDS/S-21/01/136
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sex, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	28/01/2021	Date of Testing	29/01/2021
Stack Sampling Attached to	Alkali Scrubber of TiCl ₄ Storage Tank (S - 4)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	10.25
5.	Exit Gas Flow	m ³ /h	649
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results


Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrochloric Acid (as HCl)	mg/Nm ³	1.8	20

Remarks:

Opinion & Interpretation (if required):

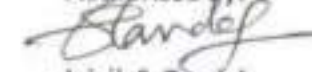
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Nikunj D. Patel
(Chemist)

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(Manager - Operations)
UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000000126F			
Test Report No.	URA/20/12/S-121	Report Issue Date	02/01/2021
Service Request form No.	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.	URA/ID/S-20/12/121	Field Data Sheet No.	URA/FDS/5-20/12/121
Name & Add. Of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	30/12/2020	Date of Testing	31/12/2020
Stack Sampling Attached to	Alkali Scrubber of $TiCl_4$ Storage Tank (S - 4)		

➤ Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VS51	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m^2	0.0176
4.	Exit Gas Velocity	m/s	9.08
5.	Exit Gas Flow	m^3/h	575
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

➤ Test Parameter Results


Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrochloric Acid (as HCl)	mg/Nm ³	2.4	20

Remarks:

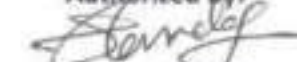
Opinion & Interpretation (if required):

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(Chemist)
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Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010994F			
Test Report No.	URA/20/11/S-101	Report Issue Date	01/12/2020
Service Request form No.	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.	URA/ID/S-20/11/101	Field Data Sheet No.	URA/FDS/S-20/11/101
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/11/2020	Date of Testing	27/11/2020
Stack Sampling Attached to	Alkali Scrubber of TiCl ₄ Storage Tank (S - 4)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	8.65
5.	Exit Gas Flow	m ³ /h	548
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results


Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrochloric Acid (as HCl)	mg/Nm ³	1.9	20

Remarks:

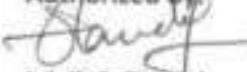
Opinion & Interpretation (if required):

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TEST REPORT (STACK MONITORING)

ULR - TC775321000003965F			
Test Report No.	URA/21/03/S-116	Report Issue Date	31/03/2021
Service Request form No.	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.	URA/ID/S-21/03/116	Field Data Sheet No.	URA/FDS/S-21/03/116
Name & Add. Of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist. Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/03/2021	Date of Testing	26/03/2021
Stack Sampling Attached to	Water Scrubber of NH ₃ Storage Tank (S - 5)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	11.08
5.	Exit Gas Flow	m ³ /h	702
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	6	175

Remarks:

Opinion & Interpretation (if required):

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 Nikunj D. Patel
 (Chemist)

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 Jaivik S. Tandel
 (Manager - Operations)
 UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000002556F			
Test Report No.	URA/21/02/S-101	Report Issue Date	01/03/2021
Service Request form No.	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.	URA/ID/S-21/02/101	Field Data Sheet No.	URA/FDS/S-21/02/101
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	23/02/2021	Date of Testing	24/02/2021
Stack Sampling Attached to	Water Scrubber of NH ₃ Storage Tank (S - 5)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	10.63
5.	Exit Gas Flow	m ³ /h	673
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	9	175

Remarks:

Opinion & Interpretation (if required):

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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
(Manager - Operations)
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TEST REPORT (STACK MONITORING)

ULR - TC775321000001455F

Test Report No.	URA/21/01/S-132	Report Issue Date	02/02/2021
Service Request form No.	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.	URA/ID/S-21/01/132	Field Data Sheet No.	URA/FDS/S-21/01/132
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist : Kutch, Gujarat - 370421, INDIA		
Date of Sampling	28/01/2021	Date of Testing	29/01/2021
Stack Sampling Attached to	Water Scrubber of NH ₃ Storage Tank (5 - 5)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	11.46
5.	Exit Gas Flow	m ³ /h	726
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	12	175

Remarks:

Opinion & Interpretation (if required):

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

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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-04/04

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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. Sahel B, Bhavnagar, Gujarat.

CHC

TEST REPORT (STACK MONITORING)

ULR - TC775321000000122F			
Test Report No.	URA/20/12/S-117	Report Issue Date	02/01/2021
Service Request form No.	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.	URA/ID/S-20/12/117	Field Data Sheet No.	URA/FDS/S-20/12/117
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	30/12/2020	Date of Testing	31/12/2020
Stack Sampling Attached to	Water Scrubber of NH ₃ Storage Tank (5 - 5)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	10.62
5.	Exit Gas Flow	m ³ /h	672
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	19	175

Remarks:

Opinion & Interpretation (if required):

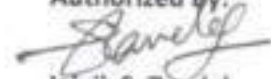
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TEST REPORT (STACK MONITORING)

ULR - TC775320000010990F			
Test Report No.	URA/20/11/S-097	Report Issue Date	01/12/2020
Service Request form No.	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.	URA/ID/S-20/11/097	Field Data Sheet No.	URA/FDS/S-20/11/097
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/11/2020	Date of Testing	27/11/2020
Stack Sampling Attached to	Water Scrubber of NH ₃ Storage Tank (S - 5)		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VS51	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	9.38
5.	Exit Gas Flow	m ³ /h	594
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	13	175

Remarks:

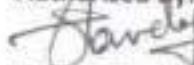
Opinion & Interpretation (if required):

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010018F

Test Report No.	URA/20/10/S-120	Report Issue Date	31/10/2020
Service Request form No.	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.	URA/ID/S-20/10/120	Field Data Sheet No.	URA/FDS/S-20/10/120
Name & Add. Of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/10/2020	Date of Testing	27/10/2020
Stack Sampling Attached to	Water Scrubber of NH ₃ Storage Tank (S - 5)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	9.02
5.	Exit Gas Flow	m ³ /h	571
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	10	175

Remarks:


Opinion & Interpretation (if required):

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Nikunj D. Patel
(Chemist)

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Jalvik S. Tandel
(Manager - Operations)

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TEST REPORT (STACK MONITORING)

ULR - TC775321000003968F

Test Report No.	URA/21/03/S-119	Report Issue Date	31/03/2021
Service Request form No.	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.	URA/ID/S-21/03/119	Field Data Sheet No.	URA/FDS/S-21/03/119
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/03/2021	Date of Testing	26/03/2021
Stack Sampling Attached to	Alkali Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-6)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERRL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	10.73
5.	Exit Gas Flow	m ³ /h	679
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	15	175
2.	Hydrochloric Acid (as HCl)	mg/Nm ³	N.D.	20

Remarks:

Opinion & Interpretation (If required):

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Nikunj D. Patel
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Jaivik S. Tandel
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TEST REPORT (STACK MONITORING)

ULR - TC775321000002559F			
Test Report No.	URA/21/02/S-104	Report Issue Date	01/03/2021
Service Request form No.	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.	URA/ID/S-21/02/104	Field Data Sheet No.	URA/FDS/S-21/02/104
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	23/02/2021	Date of Testing	24/02/2021
Stack Sampling Attached to	Alkali Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-6)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	9.50
5.	Exit Gas Flow	m ³ /h	601
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	18	175
2.	Hydrochloric Acid (as HCl)	mg/Nm ³	N.D.	20

Remarks:

Opinion & Interpretation (if required):

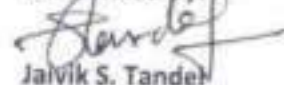
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TEST REPORT (STACK MONITORING)

ULR - TC775321000001458F			
Test Report No.	URA/21/01/S-135	Report Issue Date	02/02/2021
Service Request form No.	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.	URA/ID/S-21/01/135	Field Data Sheet No.	URA/FDS/S-21/01/135
Name & Add. Of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	28/01/2021	Date of Testing	29/01/2021
Stack Sampling Attached to	Alkali Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-6)		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	9.08
5.	Exit Gas Flow	m ³ /h	575
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	15	175
2.	Hydrochloric Acid (as HCl)	mg/Nm ³	N.D.	20

Remarks:

Opinion & Interpretation (if required):

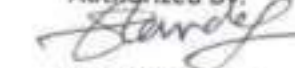
***** End of Report *****

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Nikunj D. Patel
 (Chemist)

Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
 (Manager - Operations)
 UURL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000000125F			
Test Report No.	URA/20/12/S-120	Report Issue Date	02/01/2021
Service Request form No.	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.	URA/ID/S-20/12/120	Field Data Sheet No.	URA/FDS/S-20/12/120
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	30/12/2020	Date of Testing	31/12/2020
Stack Sampling Attached to	Alkali Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-6)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	8.93
5.	Exit Gas Flow	m ³ /h	565
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	16	175
2.	Hydrochloric Acid (as HCl)	mg/Nm ³	N.D.	20

Remarks:

Opinion & Interpretation (if required):

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

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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010993F			
Test Report No.	URA/20/11/5-100	Report Issue Date	01/12/2020
Service Request form No.	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.	URA/ID/5-20/11/100	Field Data Sheet No.	URA/FDS/5-20/11/100
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/11/2020	Date of Testing	27/11/2020
Stack Sampling Attached to	Alkali Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (5-6)		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, V551	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	9.30
5.	Exit Gas Flow	m ³ /h	589
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	11	175
2.	Hydrochloric Acid (as HCl)	mg/Nm ³	N.D.	20

Remarks:

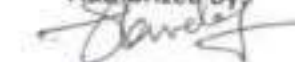
Opinion & Interpretation (if required):

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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
(Manager - Operations)

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010021F			
Test Report No.	URA/20/10/S-123	Report Issue Date	31/10/2020
Service Request form No.	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.	URA/ID/S-20/10/123	Field Data Sheet No.	URA/FDS/S-20/10/123
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/10/2020	Date of Testing	27/10/2020
Stack Sampling Attached to	Alkali Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-6)		

➤ Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	8.80
5.	Exit Gas Flow	m ³ /h	557
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

➤ Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	15	175

Remarks:

Opinion & Interpretation (if required):

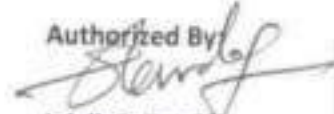
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 (Chemist)

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TEST REPORT (STACK MONITORING)

ULR - TC775321000003966F			
Test Report No.	URA/21/03/S-117	Report Issue Date	31/03/2021
Service Request form No.	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.	URA/ID/S-21/03/117	Field Data Sheet No.	URA/FDS/S-21/03/117
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/03/2021	Date of Testing	26/03/2021
Stack Sampling Attached to	Water Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-7)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	10.54
5.	Exit Gas Flow	m ³ /h	667
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	11	175

Remarks:

Opinion & Interpretation (if required):

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Nikunj D. Patel
(Chemist)

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(Manager - Operations)
UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000002557F			
Test Report No.	URA/21/02/S-102	Report Issue Date	01/03/2021
Service Request form No.	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.	URA/ID/S-21/02/102	Field Data Sheet No.	URA/FDS/S-21/02/102
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	23/02/2021	Date of Testing	24/02/2021
Stack Sampling Attached to	Water Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-7)		

Details of Instrument Used for Monitoring

Instrument Id No.	UURL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, V551	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	11.04
5.	Exit Gas Flow	m ³ /h	699
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	14	175

Remarks:

Opinion & Interpretation (if required):

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Nikunj D. Patel
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UURL/AIR/F-04/04

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TC-7753

**TEST REPORT
(STACK MONITORING)**

ULR - TC775321000001456F			
Test Report No.	URA/21/01/S-133	Report Issue Date	02/02/2021
Service Request form No.	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.	URA/ID/S-21/01/133	Field Data Sheet No.	URA/FDS/S-21/01/133
Name & Add. Of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	28/01/2021	Date of Testing	29/01/2021
Stack Sampling Attached to	Water Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-7)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERRL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VS51	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	10.83
5.	Exit Gas Flow	m ³ /h	686
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	17	175

Remarks:

Opinion & Interpretation (if required):

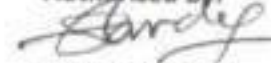
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 Nikunj D. Patel
 (Chemist)

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 Jaivik S. Tandel
 (Manager - Operations)
 UERRL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000000123F			
Test Report No.	URA/20/12/S-118	Report Issue Date	02/01/2021
Service Request form No.	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.	URA/ID/S-20/12/118	Field Data Sheet No.	URA/FDS/S-20/12/118
Name & Add. Of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	30/12/2020	Date of Testing	31/12/2020
Stack Sampling Attached to	Water Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-7)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, V551	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	10.04
5.	Exit Gas Flow	m ³ /h	636
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	15	175

Remarks:

Opinion & Interpretation (if required):

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

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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010991F			
Test Report No.	URA/20/11/S-098	Report Issue Date	01/12/2020
Service Request form No.	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.	URA/ID/S-20/11/098	Field Data Sheet No.	URA/FDS/S-20/11/098
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist - Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/11/2020	Date of Testing	27/11/2020
Stack Sampling Attached to	Water Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-7)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia.	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	10.17
5.	Exit Gas Flow	m ³ /h	644
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	18	175

Remarks:

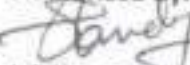
Opinion & Interpretation (if required):

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Checked By:


Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
(Manager - Operations)

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TEST REPORT (STACK MONITORING)

ULR - TC775320000010019F			
Test Report No.	URA/20/10/S-121	Report Issue Date	31/10/2020
Service Request form No.	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.	URA/ID/S-20/10/121	Field Data Sheet No.	URA/FDS/S-20/10/121
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/10/2020	Date of Testing	27/10/2020
Stack Sampling Attached to	Water Scrubber of Vent attached with Reaction Vessels of TPT & TPT Based Titinates (S-7)		

➤ Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

➤ General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	15
2.	Stack Dia	mm	150
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	9.59
5.	Exit Gas Flow	m ³ /h	607
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

➤ Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Ammonia (as NH ₃)	mg/Nm ³	16	175

Remarks:

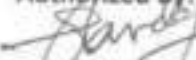
Opinion & Interpretation (if required):

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Nikunj D. Patel
 (Chemist)

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Jaivik S. Tandel
 (Manager - Operations)

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UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000003967F			
Test Report No.	URA/21/03/S-118	Report Issue Date	31/03/2021
Service Request form No.	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.	URA/ID/S-21/03/118	Field Data Sheet No.	URA/FDS/S-21/03/118
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Set, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	25/03/2021	Date of Testing	26/03/2021
Stack Sampling Attached to	Vent attached with reaction vessels of process chemicals (Antifoulants) (S-9)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	100
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	10.05
5.	Exit Gas Flow	m ³ /h	636
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrogen Sulfide	mg/Nm ³	N.D.	45

Remarks:

Opinion & Interpretation (if required):

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Nikunj D. Patel
(Chemist)

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Jaivik S. Tandel
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UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000002558F			
Test Report No.	URA/21/02/S-103	Report Issue Date	01/03/2021
Service Request form No.	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.	URA/ID/S-21/02/103	Field Data Sheet No.	URA/FDS/S-21/02/103
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling:	23/02/2021	Date of Testing	24/02/2021
Stack Sampling Attached to	Vent attached with reaction vessels of process chemicals (Antifoulants) (S-9)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, V551	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	100
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	9.62
5.	Exit Gas Flow	m ³ /h	609
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrogen Sulfide	mg/Nm ³	N.D.	45

Remarks:

Opinion & Interpretation (if required):

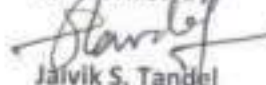
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Jalvik S. Tandel
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UERL/AIR/F-04/04

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TEST REPORT (STACK MONITORING)

ULR - TC775321000001457F

Test Report No.	URA/21/01/S-134	Report Issue Date	02/02/2021
Service Request form No.	URA/SRF/01/D61	Service Request Date	27/01/2021
Sample ID No.	URA/ID/S-21/01/134	Field Data Sheet No.	URA/FDS/S-21/01/134
Name & Add. Of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	27/01/2021	Date of Testing	28/01/2021
Stack Sampling Attached to	Vent attached with reaction vessels of process chemicals (Antifoulants) (5-9)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERR/AIR/SMK/51	Serial Number	319, DTE - 14
Instrument Name	Stack Monitoring Kit, VSS1	Next Calibration Due On	30/06/2021
Calibration Date	01/07/2020		

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	100
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	8.59
5.	Exit Gas Flow	m ³ /h	544
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrogen Sulfide	mg/Nm ³	N.D.	45

Remarks:

Opinion & Interpretation (If required):

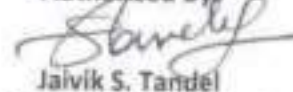
***** End of Report *****

Checked By:

 Nikunj D. Patel
 (Chemist)

Page No.: 1 of 1

Authorized By:



 Jaivik S. Tandel
 (Manager - Operations)

UERR/AIR/F-04/04

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT (STACK MONITORING)

ULR - TC775321000000124F			
Test Report No.	URA/20/12/5-119	Report Issue Date	02/01/2021
Service Request form No.	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.	URA/ID/5-20/12/119	Field Data Sheet No.	URA/FDS/5-20/12/119
Name & Add. Of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	30/12/2020	Date of Testing	31/12/2020
Stack Sampling Attached to	Vent attached with reaction vessels of process chemicals (Antifoulants) (S-9)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	100
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	9.84
5.	Exit Gas Flow	m ³ /h	623
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrogen Sulfide	mg/Nm ³	N.D.	45

Remarks:

Opinion & Interpretation (if required):

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

Checked By:

Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:

Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-04/04

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT (STACK MONITORING)

ULR - TC775320000010992F			
Test Report No.	URA/20/11/5-099	Report Issue Date	01/12/2020
Service Request form No.	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.	URA/ID/5-20/11/099	Field Data Sheet No.	URA/FDS/5-20/11/099
Name & Add. Of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist. Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/11/2020	Date of Testing	27/11/2020
Stack Sampling Attached to	Vent attached with reaction vessels of process chemicals (Antifoulants) (5-9)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/51		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	100
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	8.72
5.	Exit Gas Flow	m ³ /h	552
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrogen Sulfide	mg/Nm ³	N.D.	45

Remarks:

Opinion & Interpretation (if required):

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

Checked By:

 Nikunj D. Patel
 (Chemist)

Authorized By:

 Jaivik S. Tandel
 (Manager - Operations)

Page No.: 1 of 1

UERL/AIR/F-04/04

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT (STACK MONITORING)

ULR - TC775320000010020F			
Test Report No.	URA/20/10/S-122	Report Issue Date	31/10/2020
Service Request form No.	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.	URA/ID/S-20/10/122	Field Data Sheet No.	URA/FDS/S-20/10/122
Name & Add. Of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Set, Dist.: Kutch, Gujarat - 370421, INDIA		
Date of Sampling	26/10/2020	Date of Testing	27/10/2020
Stack Sampling Attached to	Vent attached with reaction vessels of process chemicals (Antifoulants) (S-9)		

Details of Instrument Used for Monitoring

Instrument Id No.	UERL/AIR/SMK/S1		
Instrument Name	Stack Monitoring Kit, VSS1	Serial Number	319, DTE - 14
Calibration Date	01/07/2020	Next Calibration Due On	30/06/2021

General Stack Monitoring Observation

Sr. No.	Description	Unit of measurement	Observation
1.	Stack Height	m	8
2.	Stack Dia	mm	100
3.	Stack Area	m ²	0.0176
4.	Exit Gas Velocity	m/s	9.33
5.	Exit Gas Flow	m ³ /h	591
6.	Flow Rate for Gas	L/min	1
7.	Volume of Air Sample for Gas	L	30

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION	
Sr. No.	Test Parameter	Unit of measurement	Result	Permissible Limit
1.	Hydrogen Sulfide	mg/Nm ³	N.D.	45

Remarks:

Opinion & Interpretation (if required):

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

Checked By:

 Nikunj D. Patel
 (Chemist)

Authorized By:

 Jalvik S. Tandel
 (Manager - Operations)

Page No.: 1 of 1

UERL/AIR/F-04/04

Note: This report is subject to Terms and Conditions mentioned overleaf.



TC-7753

TEST REPORT

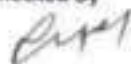
ULR No.	TC775321000004022F	Report No.	URC/21/03/0953
Name & Address of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	02/04/2021
Sample Details	Treated Effluent Water Sample	Customer's Ref.	--
Sample Qty.	3 Lit.	Location	--
Sampling Date	25/03/2021	Appearance	Colorless
Test Started Date	27/03/2021	Sample Received Date	27/03/2021
Sampled By	Party.	Test Completion Date	01/04/2021
UERL Lab ID. No.	21/03/0953	Sampling Method	--

TEST RESULTS:

DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	G.P.C.B. Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 ° C	(APHA 23 rd Ed.,2017,4500-H ⁺ B)	6.5 - 8.5	--	7.33
2.	Total Suspended Solids	(APHA 23 rd Ed.,2017,2540 -D),	800 Max.	mg/L	22
3.	Total Dissolved Solids	(APHA 23 rd Ed.,2017,2540- C),	2100 Max.	mg/L	1436
GENERAL CHEMICAL PARAMETERS					
1.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed.,2017,5220-B),	2000 Max.	mg/L	306.1
2.	Biochemical Oxygen Demand (BOD) (3 days at 27 °C)	IS 3025(Part44)1993, Amd.1	1000 Max.	mg/L	98
3.	Oil & Grease	IS 3025(Part39)1991, Amd.2	20 Max.	mg/L	BDL(MDL:2.0)
4.	Sulphide as S ²⁻	(APHA 23 rd Ed.,2017,4500 S ²⁻ F)	2.0 Max.	mg/L	BDL(MDL:0.05)
5.	Phenolic Compound	IS 3025(Part43)1992, Amd.2	1.0 Max.	mg/L	BDL(MDL:0.1)
6.	Fluoride as F	(APHA 23 rd Ed.,2017,4500 F,D)	2.0 Max.	mg/L	0.26
7.	Chloride as Cl	(APHA 23 rd Ed.,2017,4500-Cl)	600 Max.	mg/L	502.2
8.	Sulphate as SO ₄ ²⁻	IS 3025(Part 24)1986	1000 Max.	mg/L	162.2
9.	Cyanide as CN	IS 3025(Part 27)1986	0.2 Max.	mg/L	BDL(MDL:0.05)
10.	Copper as Cu	(APHA 23 rd Ed.,2017,3111-B)	3.0 Max.	mg/L	BDL(MDL:0.05)
11.	Nickel as Ni	(APHA 23 rd Ed.,2017,3111-B)	3.0 Max.	mg/L	0.026
12.	Ammonical Nitrogen	(APHA 23 rd Ed.,2017,4500 NH ₃ -B&C),	50 Max.	mg/L	24.8
Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit,					
Opinion & Interpretation (If required): --					

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

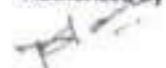
Checked By



(Nilesch C. Patel)
(Sr. Chemist)

Page 1 of 1

Authorized By



(Nitin B. Tandel)
(Technical Manager)

UERL/CHM/F-2/05

Note: This report is subject to terms and conditions mentioned overleaf.

TEST REPORT


ULR No.	TC775321000002577F	Report No.	URC /21/02/0674
Name & Address of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	02/03/2021
Sample Details	Treated Effluent Water Sample	Customer's Ref.	—
Sample Qty.	3 Lit.	Location	—
Sampling Date	22/02/2021	Appearance	Colorless
Test Started Date	24/02/2021	Sample Received Date	24/02/2021
Sampled By	Party.	Test Completion Date	01/03/2021
UERL Lab ID.No.	21/02/0674	Sampling Method	—

TEST RESULTS:


DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	G.P.C.B. Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 ° C	(APHA 23 rd Ed., 2017, 4500-H ⁺ B)	6.5 - 8.5	—	7.41
2.	Total Suspended Solids	(APHA 23 rd Ed., 2017, 2540-D)	800 Max.	mg/L	14
3.	Total Dissolved Solids	(APHA 23 rd Ed., 2017, 2540-C)	2100 Max.	mg/L	1392
GENERAL CHEMICAL PARAMETERS					
1.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed., 2017, 5220-B)	2000 Max.	mg/L	281.4
2.	Biochemical Oxygen Demand (BOD) (3 days at 27 °C)	IS 3025(Part 44)1993, Amd.1	1000 Max.	mg/L	90
3.	Oil & Grease	IS 3025(Part 39)1991, Amd.2	20 Max.	mg/L	BOL(MDL:2.0)
4.	Sulphide as S ²⁻	(APHA 23 rd Ed., 2017, 4500 S ²⁻ F)	2.0 Max.	mg/L	BOL(MDL:0.05)
5.	Phenolic Compound	IS 3025(Part 43)1992, Amd.2	1.0 Max.	mg/L	BOL(MDL:0.1)
6.	Fluoride as F	(APHA 23 rd Ed., 2017, 4500 F,D)	2.0 Max.	mg/L	0.21
7.	Chloride as Cl ⁻	(APHA 23 rd Ed., 2017, 4500-Cl)	600 Max.	mg/L	476.0
8.	Sulphate as SO ₄ ²⁻	IS 3025(Part 24)1986	1000 Max.	mg/L	118.4
9.	Cyanide as CN	IS 3025(Part 27)1986	0.2 Max.	mg/L	BOL(MDL:0.05)
10.	Copper as Cu	(APHA 23 rd Ed., 2017, 3111-B)	3.0 Max.	mg/L	BOL(MDL:0.05)
11.	Nickel as Ni	(APHA 23 rd Ed., 2017, 3111-B)	3.0 Max.	mg/L	0.024
12.	Ammonical Nitrogen	(APHA 23 rd Ed., 2017, 4500 NH ₃ -B&C)	50 Max.	mg/L	18.3
Remarks: BOL= Below Detection Limit, MDL = Minimum Detection Limit.					
Opinion & Interpretation (if required): —					

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

Checked By


(Nilesh C. Patel)
(Sr. Chemist)

Authorized By


(Nitin B. Tandel)
(Technical Manager)

TEST REPORT

ULR No.	TC775321000001560F	Report No.	URC /21/01/0919
Name & Address of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	05/02/2021
Sample Details	Treated Effluent Water Sample	Customer's Ref.	—
Sample Qty.	3 Lit.	Location	—
Sampling Date	27/01/2021	Appearance	Colorless
Test Started Date	30/01/2021	Sample Received Date	30/01/2021
Sampled By	Party.	Test Completion Date	02/02/2021
UERL Lab ID.No.	21/01/0919	Sampling Method	—

TEST RESULTS:

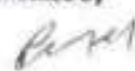
DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	G.P.C.B. Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 ° C	(APHA 23 rd Ed.,2017,4500-H ⁺ B)	6.5 – 8.5	—	7.32
2.	Total Suspended Solids	(APHA 23 rd Ed.,2017,2540-D).	800 Max.	mg/L	8
3.	Total Dissolved Solids	(APHA 23 rd Ed.,2017,2540-C).	2100 Max.	mg/L	1460
GENERAL CHEMICAL PARAMETERS					
1.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed.,2017,5220-B).	2000 Max.	mg/L	301.7
2.	Biochemical Oxygen Demand (BOD) (3 days at 27 °C)	IS 3025(Part44)1993, Amd.1	1000 Max.	mg/L	96
3.	Oil & Grease	IS 3025(Part39)1991, Amd.2	20 Max.	mg/L	BDL(MDL:2.0)
4.	Sulphide as S ²⁻	(APHA 23 rd Ed.,2017,4500 S ²⁻ F)	2.0 Max.	mg/L	BDL(MDL:0.05)
5.	Phenolic Compound	IS 3025(Part43)1992, Amd.2	1.0 Max.	mg/L	BDL(MDL:0.1)
6.	Fluoride as F ⁻	(APHA 23 rd Ed.,2017,4500 F ⁻ D)	2.0 Max.	mg/L	0.24
7.	Chloride as Cl ⁻	(APHA 23 rd Ed.,2017,4500-Cl)	600 Max.	mg/L	524.1
8.	Sulphate as SO ₄ ²⁻	IS 3025(Part 24)1986	1000 Max.	mg/L	186.4
9.	Cyanide as CN ⁻	IS 3025(Part 27)1986	0.2 Max.	mg/L	BDL(MDL:0.05)
10.	Copper as Cu	(APHA 23 rd Ed.,2017,3111-B)	3.0 Max.	mg/L	BDL(MDL:0.05)
11.	Nickel as Ni	(APHA 23 rd Ed.,2017,3111-B)	3.0 Max.	mg/L	0.029
12.	Ammonical Nitrogen	(APHA 23 rd Ed.,2017,4500 NH ₃ -B&C).	50 Max.	mg/L	20.7

Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit,

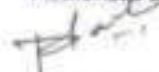
Opinion & Interpretation (If required): —

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

Checked By


(Nitesh C. Patel)
(Sr. Chemist)

Authorized By


(Nitin B. Tandel)
(Technical Manager)

TEST REPORT


ULR No.	TC775321000000234F	Report No.	URC/20/12/1031
Name & Address of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	06/01/2021
Sample Details	Treated Effluent Water Sample	Customer's Ref.	--
Sample Qty.	3 Lit.	Location	--
Sampling Date	28/12/2020	Appearance	Colourless
Test Started Date	31/12/2020	Sample Received Date	31/12/2020
Sampled By	Party.	Test Completion Date	04/01/2021
UERI Lab ID No.	20/12/1031	Sampling Method	--

TEST RESULTS:

DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	G.P.C.B. Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 °C	(APHA 23 rd Ed., 2017, 4500-H ⁺ B)	6.5 - 8.5	--	7.52
2.	Total Suspended Solids	(APHA 23 rd Ed., 2017, 2540 -D)	800 Max.	mg/L	12
3.	Total Dissolved Solids	(APHA 23 rd Ed., 2017, 2540 -C)	2100 Max.	mg/L	1510
GENERAL CHEMICAL PARAMETERS					
1.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed., 2017, 5220-B)	2000 Max.	mg/L	339.6
2.	Biochemical Oxygen Demand (BOD) (3 days at 27 °C)	IS 3025(Part 44)1993, Amd.1	1000 Max.	mg/L	109
3.	Oil & Grease	IS 3025(Part 39)1991, Amd.2	20 Max.	mg/L	BDL(MDL:2.0)
4.	Sulphide as S ²⁻	(APHA 23 rd Ed., 2017, 4500 S ²⁻ F)	2.0 Max.	mg/L	BDL(MDL:0.05)
5.	Phenolic Compound	IS 3025(Part 43)1992, Amd.2	1.0 Max.	mg/L	BDL(MDL:0.1)
6.	Fluoride as F	(APHA 23 rd Ed., 2017, 4500 F,D)	2.0 Max.	mg/L	0.27
7.	Chloride as Cl	(APHA 23 rd Ed., 2017, 4500-Cl)	600 Max.	mg/L	547.3
8.	Sulphate as SO ₄ ²⁻	IS 3025(Part 24)1986	1000 Max.	mg/L	236.9
9.	Cyanide as CN	IS 3025(Part 27)1986	0.2 Max.	mg/L	BDL(MDL:0.05)
10.	Copper as Cu	(APHA 23 rd Ed., 2017, 3111-B)	3.0 Max.	mg/L	BDL(MDL:0.05)
11.	Nickel as Ni	(APHA 23 rd Ed., 2017, 3111-B)	3.0 Max.	mg/L	0.037
12.	Ammonical Nitrogen	(APHA 23 rd Ed., 2017, 4500 NH ₃ -B&C)	50 Max.	mg/L	24.4
Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit.					
Opinion & Interpretation (If required): --					

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

Checked By


Nikunj P. Patel
(Sr. Chemist)

Authorized By


(Nitin B. Tandel)
(Technical Manager)

TEST REPORT

ULR No.	TC775320000011094F	Report No.	URC /20/11/0667
Name & Address of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SE2, Mundra, Kutch, Gujarat.	Date Of Report	04/12/2020
Sample Details	Treated Effluent Water Sample	Customer's Ref.	--
Sample Qty.	3 Lit.	Location	--
Sampling Date	25/11/2020	Appearance	Colourless
Test Started Date	28/11/2020	Sample Received Date	28/11/2020
Sampled By	Party.	Test Completion Date	03/12/2020
UERL Lab ID.No.	20/11/0667	Sampling Method	--

TEST RESULTS:

DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	G.P.C.B. Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 °C	(APHA 23 rd Ed.,2017,4500-H-B)	6.5 – 8.5	--	7.29
2.	Total Suspended Solids	(APHA 23 rd Ed.,2017,2540-D)	800 Max.	mg/L	8
3.	Total Dissolved Solids	(APHA 23 rd Ed.,2017,2540-C)	2100 Max.	mg/L	1408
GENERAL CHEMICAL PARAMETERS					
1.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed.,2017,5220-B)	2000 Max.	mg/L	512.8
2.	Biochemical Oxygen Demand (BOD) (3 days at 27 °C)	IS 3025(Part44)1993, Amd.1	1000 Max.	mg/L	98
3.	Oil & Grease	IS 3025(Part39)1991, Amd.2	20 Max.	mg/L	BDL(MDL:2.0)
4.	Sulphide as S ²⁻	(APHA 23 rd Ed.,2017,4500 S ²⁻ -F)	2.0 Max.	mg/L	BDL(MDL:0.05)
5.	Phenolic Compound	IS 3025(Part43)1992, Amd.2	1.0 Max.	mg/L	BDL(MDL:0.1)
6.	Fluoride as F	(APHA 23 rd Ed.,2017,4500 F-D)	2.0 Max.	mg/L	0.16
7.	Chloride as Cl	(APHA 23 rd Ed.,2017,4500-Cl)	600 Max.	mg/L	527.9
8.	Sulphate as SO ₄ ²⁻	IS 3025(Part 24)1986	1000 Max.	mg/L	215.8
9.	Cyanide as CN	IS 3025(Part 27)1986	0.2 Max.	mg/L	BDL(MDL:0.05)
10.	Copper as Cu	(APHA 23 rd Ed.,2017,3111-B)	3.0 Max.	mg/L	BDL(MDL:0.05)
11.	Nickel as Ni	(APHA 23 rd Ed.,2017,3111-B)	3.0 Max.	mg/L	0.028
12.	Ammonical Nitrogen	(APHA 23 rd Ed.,2017,4500 NH ₃ -B&C)	50 Max.	mg/L	27.1
Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit.					
Opinion & Interpretation (If required): --					

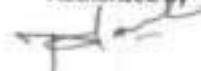
***** End of Report *****

Checked By



 Nilesh C. Patel
 (Sr. Chemist)

Authorized By



 (Nitin B. Tandel)
 (Technical Manager)

TEST REPORT

ULR No.	TC775320000010100F	Report No.	URC /20/10/0837
Name & Address of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	03/11/2020
		Customer's Ref.	—
Sample Details	Treated Effluent Water Sample	Location	—
Sample Qty.	3 Lit.	Appearance	Colourless
Sampling Date	26/10/2020	Sample Received Date	28/10/2020
Test Started Date	28/10/2020	Test Completion Date	31/10/2020
Sampled By	Party.	Sampling Method	—
UERRL Lab ID.No.	20/10/0837		

TEST RESULTS

DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	G.P.C.B. Desirable Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 °C	(APHA 23 rd Ed., 2017, 4500-H ⁺ B)	6.5 – 8.5	—	7.42
2.	Total Suspended Solids	(APHA 23 rd Ed., 2017, 2540-D)	800 Max.	mg/L	12
3.	Total Dissolved Solids	(APHA 23 rd Ed., 2017, 2540-C)	2100 Max.	mg/L	1354
GENERAL CHEMICAL PARAMETERS					
1.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed., 2017, 5220-B)	2000 Max.	mg/L	221.8
2.	Biochemical Oxygen Demand (BOD) (3 days at 27 °C)	IS 3025(Part 44)1993, Amd.1	1000 Max.	mg/L	64
3.	Oil & Grease	IS 3025(Part 39)1991, Amd.2	20 Max.	mg/L	BDL(MDL:2.0)
4.	Sulphide as S ²⁻	(APHA 23 rd Ed., 2017, 4500 S ²⁻ F)	2.0 Max.	mg/L	BDL(MDL:0.05)
5.	Phenolic Compound	IS 3025(Part 43)1992, Amd.2	1.0 Max.	mg/L	BDL(MDL:0.1)
6.	Fluoride as F	(APHA 23 rd Ed., 2017, 4500 F,D)	2.0 Max.	mg/L	0.19
7.	Chloride as Cl ⁻	(APHA 23 rd Ed., 2017, 4500-Cl)	600 Max.	mg/L	511.0
8.	Sulphate as SO ₄ ²⁻	IS 3025(Part 24)1986	1000 Max.	mg/L	161.8
9.	Cyanide as CN	IS 3025(Part 27)1986	0.2 Max.	mg/L	BDL(MDL:0.05)
10.	Copper as Cu	(APHA 23 rd Ed., 2017, 3111-B)	3.0 Max.	mg/L	BDL(MDL:0.05)
11.	Nickel as Ni	(APHA 23 rd Ed., 2017, 3111-B)	3.0 Max.	mg/L	0.034
12.	Ammonical Nitrogen	(APHA 23 rd Ed., 2017, 4500 NH ₃ -B&C)	50 Max.	mg/L	21.5
Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit,					
Opinion & Interpretation (If required):					

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

Checked By



Nilesh C. Patel
(Sr. Chemist)

Authorized By



(Nitin B. Tandel)
(Technical Manager)

TEST REPORT

ULR No.	TC775321000004023F	Report No.	URC /21/03/0954
Name & Address of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	02/04/2021
Sample Details	STP Outlet Water Sample	Customer's Ref.	---
Sample Qty.	2 Lit.	Location	---
Sampling Date	25/03/2021	Appearance	Colorless
Test Started Date	27/03/2021	Sample Received Date	27/03/2021
Sampled By	Party.	Test Completion Date	01/04/2021
UERL Lab ID. No.	21/03/0954	Sampling Method	---

TEST RESULTS:

DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	GPCB Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 °C	(APHA 23 rd Ed.,2017,4500-H ⁺ B)	---	---	7.15
2.	Total Dissolved Solids	(APHA 23 rd Ed.,2017,2540- C).	---	mg/L	1028
3.	Total Suspended Solids	(APHA 23 rd Ed.,2017,2540- D).	<30	mg/L	26
GENERAL CHEMICAL PARAMETERS					
1.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed.,2017,5220-B).	---	mg/L	52.6
2.	Biochemical Oxygen Demand (BOD)	IS 3025(Part44)1993, Amd. 1	<20	mg/L	14
3.	Residual Free Chlorine	(APHA 23 rd Ed.,2017,4500-Cl-B)	0.5 (min.)	mg/L	0.80
Remarks: --					
Opinion & Interpretation (If required): --					

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

Checked By

(Nilesh C. Patel)
(Sr. Chemist)

Authorized By

(Nitin B. Tandel)
(Technical Manager)

TEST REPORT

ULR No.	TC775321000002578F	Report No.	URC /21/02/0675
Name & Address of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	02/03/2021
Sample Details	STP Outlet Water Sample	Customer's Ref.	--
Sample Qty.	2 Lit.	Location	--
Sampling Date	22/02/2021	Appearance	Colorless
Test Started Date	24/02/2021	Sample Received Date	24/02/2021
Sampled By	Party.	Test Completion Date	01/03/2021
UERL Lab ID.No.	21/02/0675	Sampling Method	--

TEST RESULTS:

DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	GPCB Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 °C	(APHA 23 rd Ed.,2017,4500-H ⁺ B)	--	--	7.24
2.	Total Dissolved Solids	(APHA 23 rd Ed.,2017,2540- C).	--	mg/L	954
3.	Total Suspended Solids	(APHA 23 rd Ed.,2017,2540 -D).	<30	mg/L	22
GENERAL CHEMICAL PARAMETERS					
1.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed.,2017,5220-B).	--	mg/L	32.1
2.	Biochemical Oxygen Demand (BOD)	IS 3025(Part44)1993, Amd. 1	<20	mg/L	9
3.	Residual Free Chlorine	(APHA 23 rd Ed.,2017,4500-Cl-B)	0.5 (min.)	mg/L	0.65
Remarks: --					
Opinion & Interpretation (if required): --					

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

Checked By

(Nilesh C. Patel)
(Sr. Chemist)

Authorized By

(Nitin B. Tandel)
(Technical Manager)

TEST REPORT

ULR No.	TC775321000001559F	Report No.	URC /21/01/0918
Name & Address of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	05/02/2021
Sample Details	STP Outlet Water Sample	Customer's Ref.	--
Sample Qty.	2 Lit.	Location	--
Sampling Date	27/01/2021	Appearance	Colorless
Test Started Date	30/01/2021	Sample Received Date	30/01/2021
Sampled By	Party.	Test Completion Date	04/02/2021
UERL Lab ID.No.	21/01/0918	Sampling Method	--

TEST RESULTS:

DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	GPCB Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 ° C	(APHA 23 rd Ed.,2017,4500-H ⁺ B)	--	--	7.36
2.	Total Dissolved Solids	(APHA 23 rd Ed.,2017,2540- C),	--	mg/L	1086
3.	Total Suspended Solids	(APHA 23 rd Ed.,2017,2540 -D),	<30	mg/L	26
GENERAL CHEMICAL PARAMETERS					
1.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed.,2017,5220-B),	--	mg/L	46.5
2.	Biochemical Oxygen Demand (BOD)	IS 3025(Part44)1993, Amd. 1	<20	mg/L	14
3.	Residual Free Chlorine	(APHA 23 rd Ed.,2017,4500-Cl-B)	0.5 (min.)	mg/L	0.80
Remarks: --					
Opinion & Interpretation (If required): --					

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

Checked By

(Nilesh C. Patel)
(Sr. Chemist)

Authorized By

(Nitin B. Tandel)
(Technical Manager)

Page 1 of 1

Note: This report is subject to terms and conditions mentioned overleaf.

UERL/CHM/F-2/05

TEST REPORT

ULR No.	TC775321000000233F	Report No.	URC /20/12/1030
Name & Address of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd., Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	06/01/2021
Sample Details	STP Outlet Water Sample	Customer's Ref.	--
Sample Qty.	2 Lit.	Location	--
Sampling Date	28/12/2020	Appearance	Colourless
Test Started Date	31/12/2020	Sample Received Date	31/12/2020
Sampled By	Party.	Test Completion Date	05/01/2021
UERL Lab ID.No.	20/12/1030	Sampling Method	--

TEST RESULTS:

DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	GPCB Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 °C	(APHA 23 rd Ed., 2017, 4500-H ⁺ B)	--	--	7.41
2.	Total Dissolved Solids	(APHA 23 rd Ed., 2017, 2540- C)	--	mg/L	1042
3.	Total Suspended Solids	(APHA 23 rd Ed., 2017, 2540- D)	<30	mg/L	22
GENERAL CHEMICAL PARAMETERS					
1.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed., 2017, 5220-B)	--	mg/L	58.2
2.	Biochemical Oxygen Demand (BOD)	IS 3025(Part4)1993, Amd. 1	<20	mg/L	17
3.	Residual Free Chlorine	(APHA 23 rd Ed., 2017, 4500-Cl-B)	0.5 (min.)	mg/L	0.93
Remarks: --					
Opinion & Interpretation (if required): --					

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

Checked By

Nikunj P. Patel
(Sr. Chemist)

Authorized By

(Nitin H. Tandel)
(Technical Manager)

TEST REPORT

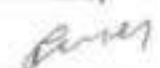
UER No.	TC775320000011093F	Report No.	URC /20/11/0666
Name & Address of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	04/12/2020
Sample Details	STP Outlet Water Sample	Customer's Ref.	--
Sample Qty.	2 Lit.	Location	--
Sampling Date	25/11/2020	Appearance	Colourless
Test Started Date	28/11/2020	Sample Received Date	28/11/2020
Sampled By	Party.	Test Completion Date	03/12/2020
UERL Lab ID.No.	20/11/0666	Sampling Method	--

TEST RESULTS:

DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	GPCB Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 ° C	(APHA 23 rd Ed.,2017,4500-H-B)	--	--	7.26
2.	Total Dissolved Solids	(APHA 23 rd Ed.,2017,2540- C),	--	mg/L	966
3.	Total Suspended Solids	(APHA 23 rd Ed.,2017,2540 -D),	<30	mg/L	18
GENERAL CHEMICAL PARAMETERS					
3.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed.,2017,5220-B),	--	mg/L	44.5
4.	Biochemical Oxygen Demand (BOD)	IS 3025(Part44)1993, Amd. 1	<20	mg/L	12
5.	Residual Free Chlorine	(APHA 23 rd Ed.,2017,4500-Cl-B)	0.5 (min.)	mg/L	0.80
Remarks: --					
Opinion & Interpretation (if required): --					

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

Checked By


Nilesh C. Patel
(Sr. Chemist)

Authorized By


(Nitin D. Tandel)
(Technical Manager)

Page 1 of 1

Note: This report is subject to terms and conditions mentioned overleaf.

UERL/CHM/T-2/05

TEST REPORT

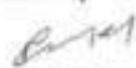
ULR No.	TC775320000010099F	Report No.	URC /20/10/0836
Name & Address of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Survey No. 161, Near Water Treatment Plant, SEZ, Mundra, Kutch, Gujarat.	Date Of Report	03/11/2020
Sample Details	STP Outlet Water Sample	Customer's Ref.	—
Sample Qty.	2 Lit.	Location	—
Sampling Date	26/10/2020	Appearance	Colourless
Test Started Date	28/10/2020	Sample Received Date	28/10/2020
Sampled By	Party.	Test Completion Date	02/11/2020
UERL Lab ID.No.	20/10/0836	Sampling Method	—

TEST RESULTS:

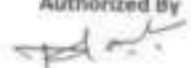
DISCIPLINE: Chemical Testing		NAME OF GROUP: Pollution & Environment			
Sr. No.	Parameters	Test Method	GPCB Limit	Unit of Measurement	Results
PHYSIO-CHEMICAL PARAMETERS					
1.	pH @ 25 ° C	(APHA 23 rd Ed.,2017,4500-H ⁺ B)	—	—	7.41
2.	Total Dissolved Solids (mg/L)	(APHA 23 rd Ed.,2017,2540- C),	—	mg/L	1088
3.	Total Suspended Solids (mg/L)	(APHA 23 rd Ed.,2017,2540- D),	<30	mg/L	24
GENERAL CHEMICAL PARAMETERS					
3.	Chemical Oxygen Demand (COD)	(APHA 23 rd Ed.,2017,5220-B),	—	mg/L	61.8
4.	Biochemical Oxygen Demand (BOD)	IS 3025(Part44)1993, Amd. 1	<20	mg/L	18
5.	Residual Free Chlorine	(APHA 23 rd Ed.,2017,4500-Cl-B)	0.5 (min.)	mg/L	0.71
Remarks:					
Opinion & Interpretation (If required):					

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

Checked By


Nitesh C. Patel
(Sr. Chemist)

Authorized By


(Nitin B. Tandel)
(Technical Manager)

TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775321000003970F			
Test Report No.:	URA/21/03/AN-050	Date Of Report:	31/03/2021
Name & Add. Of Industries	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

Details of Instrument Used for Monitoring.

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	24/07/2021

Date and Time of Monitoring : 25-03-2021 (Day Time: 6:00 am to 10:00 pm)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	55.8	62.1	58.95	<75 dB(A)
	Near Ware House	51.3	58.9	55.1	<75 dB(A)
	Near Raw Water Tank	62.4	67.1	64.75	<75 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.


Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:


Opinion & Interpretation (if required):

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

Checked By:


Nikunj D. Patel
(Chemist)
Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775321000003971F			
Test Report No.:	URA/21/03/AN-051	Date Of Report:	31/03/2021
Name & Add. Of Industries	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

Details of Instrument Used for Monitoring.

Instrument Id No.	Instrument Name	Serial Number	Cal. Date	Next Cal. Date
UERL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	24/07/2021

Date and Time of Monitoring : 25-03-2021 (Night Time: 10:00 pm to 6:00 am)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	35.0	56.3	45.65	<70 dB(A)
	Near Ware House	35.0	52.7	43.85	<70 dB(A)
	Near Raw Water Tank	35.0	63.5	49.25	<70 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.

Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:

Opinion & Interpretation (if required):

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

Checked By:

Nikunj D. Patel
(Chemist)
Page No.: 1 of 1

Authorized By:

Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775321000002561F

Test Report No.:	URA/21/02/AN-043	Date Of Report:	01/03/2021
Name & Add. Of Industries	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

Details of Instrument Used for Monitoring:

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	24/07/2021

Date and Time of Monitoring : 22-02-2021 (Day Time: 6:00 am to 10:00 pm)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
I.	Near Main Gate	57.2	64.6	60.9	<75 dB(A)
	Near Ware House	53.5	62.7	58.1	<75 dB(A)
	Near Raw Water Tank	64.5	69.1	66.8	<75 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.

Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:

Opinion & Interpretation (if required):

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

Checked By:

 Nikunj D. Patel
 (Chemist)

Page No.: 1 of 1

Authorized By:

 Jaivik S. Tandel
 (Manager - Operations)
 UERL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775321000002562F			
Test Report No.:	URA/21/02/AN-044	Date Of Report:	01/03/2021
Name & Add. Of Industries	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sex, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

Details of Instrument Used for Monitoring.

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	24/07/2021

Date and Time of Monitoring : 22-02-2021 (Night Time: 10:00 pm to 6:00 am)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	35.0	58.3	46.65	<70 dB(A)
	Near Ware House	35.0	54.9	44.95	<70 dB(A)
	Near Raw Water Tank	35.0	62.5	48.75	<70 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.

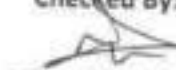
Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:

Opinion & Interpretation (if required):

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

Checked By:


 Nikunj D. Patel
 (Chemist)
 Page No.: 1 of 1

Authorized By


 Jaivik S. Tandel
 (Manager - Operations)
 UERL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT
AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775321000001460F			
Test Report No.:	URA/21/01/AN-063	Date Of Report:	02/02/2021
Name & Add. Of Industries	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

➤ **Details of Instrument Used for Monitoring:**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	24/07/2021

Date and Time of Monitoring: 27-01-2021 (Day Time: 6:00 am to 10:00 pm)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	54.2	62.3	58.25	<75 dB(A)
	Near Ware House	50.9	63.6	57.25	<75 dB(A)
	Near Raw Water Tank	61.3	67.2	64.25	<75 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.


Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:

Opinion & Interpretation (if required):


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

Checked By:


Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT
AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775321000001461F			
Test Report No.:	URA/21/01/AN-064	Date Of Report:	02/02/2021
Name & Add. Of Industries	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

➤ **Details of Instrument Used for Monitoring.**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERR/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	24/07/2021

Date and Time of Monitoring : 27-01-2021 (Night Time: 10:00 pm to 6:00 am)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	35.0	55.8	45.4	<70 dB(A)
	Near Ware House	35.0	58.1	46.55	<70 dB(A)
	Near Raw Water Tank	35.0	62.4	48.7	<70 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.

Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:

Opinion & Interpretation (if required):

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

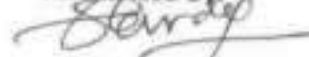
Checked By:



Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:



Jalvik S. Tandel
(Manager - Operations)
UERR/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT
AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775320000010027F			
Test Report No.:	URA/20/10/AN-061	Date Of Report:	31/10/2020
Name & Add. Of Industries	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

➤ **Details of Instrument Used for Monitoring.**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UURL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	23/07/2021

Date and Time of Monitoring : 26-10-2020 (Night Time: 10:00 pm to 6:00 am)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	35.0	56.3	45.65	<70 dB(A)
	Near Ware House	35.0	53.7	44.35	<70 dB(A)
	Near Raw Water Tank	35.0	62.8	48.9	<70 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.

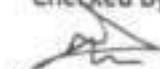
Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:

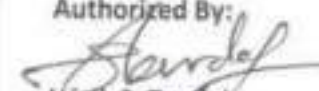
Opinion & Interpretation (if required):

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

Checked By:


Nikunj D. Patel
(Chemist)

Authorized By:


Javik S. Tandel
(Manager - Operations)

Page No.: 1 of 1

UURL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

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. Dubej-II, Bhachch, Gujarat.

TEST REPORT
AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775320000010026F			
Test Report No.:	URA/20/10/AN-060	Date Of Report:	31/10/2020
Name & Add. Of Industries	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

➤ **Details of Instrument Used for Monitoring.**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UURL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	23/07/2021

Date and Time of Monitoring : 26-10-2020 (Day Time: 6:00 am to 10:00 pm)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	56.8	62.4	59.6	<75 dB(A)
	Near Ware House	51.3	59.5	55.4	<75 dB(A)
	Near Raw Water Tank	61.5	67.2	64.35	<75 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.


Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:

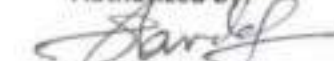
Opinion & Interpretation (if required):

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

Checked By:


Nikunj D. Patel
(Chemist)

Authorized By


Jalvik S. Tandel
(Manager - Operations)

Page No.: 1 of 1

UURL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

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. Office, Char Rasta, Vapi-396 195, Gujarat

CIN:U73100GJ2012PTC000001

TEST REPORT
AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775320000010996F			
Test Report No.:	URA/20/11/AN-042	Date Of Report:	01/12/2020
Name & Add. Of Industries	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

➤ **Details of Instrument Used for Monitoring.**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	23/07/2021

Date and Time of Monitoring : 25-11-2020 (Night Time: 10:00 pm to 6:00 am)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	35.0	58.5	46.75	<70 dB(A)
	Near Ware House	35.0	54.2	44.6	<70 dB(A)
	Near Raw Water Tank	35.0	61.7	48.35	<70 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.


Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:


Opinion & Interpretation (if required):

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

Checked By:


Nikunj D. Patel
(Chemist)

Authorized By:


Jaivik S. Tandel
(Manager - Operations)

Page No.: 1 of 1

UERL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT
AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775320000010995F			
Test Report No.:	URA/20/11/AN-041	Date Of Report:	01/12/2020
Name & Add. Of Industries:	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

➤ **Details of Instrument Used for Monitoring.**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	23/07/2021

Date and Time of Monitoring : 25-11-2020 (Day Time: 6:00 am to 10:00 pm)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	54.9	62.5	58.7	<75 dB(A)
	Near Ware House	50.5	60.2	55.35	<75 dB(A)
	Near Raw Water Tank	62.6	66.4	64.5	<75 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.


Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:

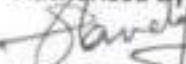
Opinion & Interpretation (if required):

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

Checked By:


Nikunj D. Patel
(Chemist)

Authorized By:


Jaivik S. Tandel
(Manager - Operations)

Page No.: 1 of 1

UERL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775321000000127F			
Test Report No.:	URA/20/12/AN-054	Date Of Report:	02/01/2021
Name & Add. Of Industries	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

Details of Instrument Used for Monitoring.

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	24/07/2021

Date and Time of Monitoring : 28-12-2020 (Day Time: 6:00 am to 10:00 pm)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	52.5	63.3	57.9	<75 dB(A)
	Near Ware House	48.9	60.8	54.85	<75 dB(A)
	Near Raw Water Tank	59.3	65.9	62.6	<75 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.

Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:

Opinion & Interpretation (if required):

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

Checked By:

Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:

Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT AMBIENT NOISE LEVEL MONITORING REPORT

ULR - TC775321000000128F			
Test Report No.:	URA/20/12/AN-055	Date Of Report:	02/01/2021
Name & Add. Of Industries	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block – F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat – 370421, INDIA		
Sampling Method	IS : 9989 : 1981		

Details of Instrument Used for Monitoring.

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/09A	Sound Level Meter	24 DTE 2008	24/07/2020	24/07/2021

Date and Time of Monitoring : 28-12-2020 (Night Time: 10:00 pm to 6:00 am)

Result

DISCIPLINE - CHEMICAL TESTING		NAME OF GROUP - ATMOSPHERIC POLLUTION			
Sr. No.	Location	Noise Level dB(A)			Permissible Limit CPCB
		Min.	Max.	Avg.	
1.	Near Main Gate	35.0	56.5	45.75	<70 dB(A)
	Near Ware House	35.0	55.2	45.1	<70 dB(A)
	Near Raw Water Tank	35.0	59.7	47.35	<70 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.

Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Remarks:

Opinion & Interpretation (if required):

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

Checked By:

Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:

Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-18/03

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775321000003957F

Test Report No.:	URA/21/03/A-054	Report Issue Date:	31/03/2021
Service Request form No.:	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.:	URA/ID/A-21/03/054	Field Data Sheet No.:	URA/FDS/A-21/03/054
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	25/03/2021	Date of Testing	27/03/2021
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A-1 (Nr. ETP)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UURL/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012,1039-DTC-2012	02/08/2020	01/08/2021
UURL/AIR/FPS/30	Fine Particulate Sampler	132-DTL-2012	02/08/2020	01/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.21
3.	Volume of Air Sampled for PM ₁₀	m ³	1742
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	92	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	35	60	UURL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	18.6	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	26.2	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	0.14	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL (MDL:5.0)	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL (MDL:0.5)	400	UURL/AIR/SOP/05
8.	Lead	µg/m ³	BDL (MDL:5.0)	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL (MDL:1.0)	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL (MDL:1.0)	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL (MDL:1.0)	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL (MDL:0.1)	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

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

Checked By:

Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:

Jalvik S. Tandel
(Manager - Operations)
UURL/AIR/F-05/05

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775321000003959F

Test Report No.:	URA/21/03/A-056	Report Issue Date:	31/03/2021
Service Request form No.:	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.:	URA/ID/A-21/03/056	Field Data Sheet No.:	URA/FDS/A-21/03/056
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	25/03/2021	Date of Testing	27/03/2021
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013, 1139-DTA-2013	02/08/2020	01/08/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2020	02/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.23
3.	Volume of Air Sampled for PM ₁₀	m ³	1771
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	81	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	29	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	15.2	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	24.8	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	0.09	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL (MDL:5.0)	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL (MDL:0.5)	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL (MDL:5.0)	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL (MDL:1.0)	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL (MDL:1.0)	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL (MDL:1.0)	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL (MDL:0.1)	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

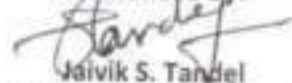
***** End of Report *****

Checked By:


 Nikunj D. Patel
 (Chemist)

Page No.: 1 of 1

Authorized By:


 Jaivik S. Tandel
 (Manager - Operations)
 UERL/AIR/F-05/05

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TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775321000003958F

Test Report No.:	URA/21/03/A-055	Report Issue Date:	31/03/2021
Service Request form No.:	URA/SRF/03/046	Service Request Date	25/03/2021
Sample ID No.:	URA/ID/A-21/03/055	Field Data Sheet No.:	URA/FDS/A-21/03/055
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	25/03/2021	Date of Testing	27/03/2021
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 3 (Nr. Main Gate / RMU)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cal. Date	Next Cal. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013,1127-DT1-2012	02/08/2020	01/08/2021
UERL/AIR/FPS/41	Fine Particulate Sampler	137-DTD-2013	03/08/2020	02/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.25
3.	Volume of Air Sampled for PM ₁₀	m ³	1800
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	86	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	32	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	19.5	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	29.7	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	0.23	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL (MDL:5.0)	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL (MDL:0.5)	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL (MDL:5.0)	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL (MDL:1.0)	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL (MDL:1.0)	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL (MDL:1.0)	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL (MDL:0.1)	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

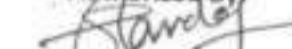
***** End of Report *****

Checked By:


Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-05/05

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TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775321000002548F

Test Report No.:	URA/21/02/A-052	Report Issue Date:	01/03/2021
Service Request form No.:	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.:	URA/ID/A-21/02/052	Field Data Sheet No.:	URA/FDS/A-21/02/052
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	22/02/2021	Date of Testing	24/02/2021
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 1 (Nr. ETP)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERT/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012, 1039-DTC-2012	02/08/2020	01/08/2021
UERT/AIR/FPS/30	Fine Particulate Sampler	132-DTL-2012	02/08/2020	01/08/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.24
3.	Volume of Air Sampled for PM ₁₀	m ³	1786
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	87	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	32	60	UERT/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	15.3	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	25.3	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	0.07	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERT/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

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

Checked By:

Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:

Jaivik S. Tandel
(Manager - Operations)
UERT/AIR/F-05/05

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775321000002549F

Test Report No.:	URA/21/02/A-053	Report Issue Date:	01/03/2021
Service Request form No.:	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.:	URA/ID/A-21/02/D53	Field Data Sheet No.:	URA/FDS/A-21/02/053
Name & Add. of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	22/02/2021	Date of Testing	24/02/2021
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 3 (Nr. Main Gate / RMU)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013,1127-DTJ-2012	02/08/2020	01/08/2021
UERL/AIR/FPS/41	Fine Particulate Sampler	137-DTD-2013	03/08/2020	02/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.21
3.	Volume of Air Sampled for PM ₁₀	m ³	1742
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	81	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	30	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	18.2	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	27.4	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	0.18	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

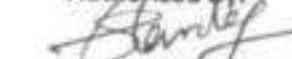
***** End of Report *****

Checked By:


 Nikunj D. Patel
 (Chemist)

Page No.: 1 of 1

Authorized By:


 Jalvik S. Tandel
 (Manager - Operations)
 UERL/AIR/F-05/05

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC77532100002550F

Test Report No.:	URA/21/02/A-054	Report Issue Date:	01/03/2021
Service Request form No.:	URA/SRF/02/041	Service Request Date	22/02/2021
Sample ID No.:	URA/ID/A-21/02/054	Field Data Sheet No.:	URA/FDS/A-21/02/054
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	22/02/2021	Date of Testing	24/02/2021
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013, 1139-DTA-2013	02/08/2020	01/08/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2020	02/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.29
3.	Volume of Air Sampled for PM ₁₀	m ³	1857
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	78	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	28	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	14.2	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	21.5	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	0.04	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

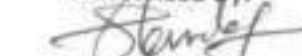
***** End of Report *****

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Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

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Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-05/05

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TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775321000001448F

Test Report No.:	URA/21/01/A-081	Report Issue Date:	02/02/2021
Service Request form No.:	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.:	URA/ID/A-21/01/081	Field Data Sheet No.:	URA/FDS/A-21/01/081
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	27/01/2021	Date of Testing	29/01/2021
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 3 (Nr. Main Gate / RMU)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERI/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013,1127-DTJ-2012	02/08/2020	01/08/2021
UERI/AIR/FPS/41	Fine Particulate Sampler	137-DTD-2013	03/08/2020	02/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.31
3.	Volume of Air Sampled for PM ₁₀	m ³	1886
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	86	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	31	60	UERI/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	16.3	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	23.8	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERI/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

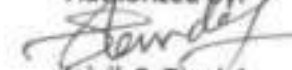
***** End of Report *****

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Page No.: 1 of 1

Authorized By:


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(Manager - Operations)
UERI/AIR/F-05/05

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TC-7753

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775321000001449F

Test Report No.:	URA/21/01/A-082	Report Issue Date:	02/02/2021
Service Request form No.:	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.:	URA/ID/A-21/01/082	Field Data Sheet No.:	URA/FDS/A-21/01/082
Name & Add. of Customer:	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	27/01/2021	Date of Testing	29/01/2021
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013,1139-DTA-2013	02/08/2020	01/08/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2020	02/08/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.25
3.	Volume of Air Sampled for PM ₁₀	m ³	1800
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

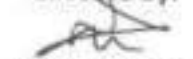
DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	74	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	26	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	13.4	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	20.1	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

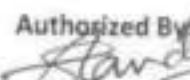
***** End of Report *****

Checked By:


Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-05/05

Note: This report is subject to Terms and Conditions mentioned overleaf.

Regd. Office : 215, Royal Arcade, Near G.I.D.C. Office, Char Rasta, Vapi-386 195, Gujarat, India.

Extended Work Office : G.I.D.C., Dahaji-II, Bharuth, Gujarat.

CIN:U73

TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775321000001447F

Test Report No.:	URA/21/01/A-080	Report Issue Date:	02/02/2021
Service Request form No.:	URA/SRF/01/061	Service Request Date	27/01/2021
Sample ID No.:	URA/ID/A-21/01/080	Field Data Sheet No.:	URA/FDS/A-21/01/080
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	27/01/2021	Date of Testing	29/01/2021
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 1 (Nr. ETP)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012, 1039-DTC-2012	02/08/2020	01/08/2021
UERL/AIR/FPS/30	Fine Particulate Sampler	132-DTL-2012	02/08/2020	01/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.28
3.	Volume of Air Sampled for PM ₁₀	m ³	1843
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	83	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	30	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	14.8	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	21.5	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

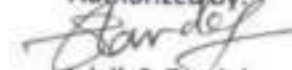
***** End of Report *****

Checked By:


Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

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Jaivik S. Tandel
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UERL/AIR/F-05/05

Note: This report is subject to Terms and Conditions mentioned overleaf.

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., Dahaj-II, Bhavnagar, Gujarat.
CIN: U73

TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775320000010015F

Test Report No.:	URA/20/10/A-068	Report Issue Date:	31/10/2020
Service Request form No.:	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.:	URA/ID/A-20/10/068	Field Data Sheet No.:	URA/FDS/A-20/10/068
Name & Add. of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	26/10/2020	Date of Testing	28/10/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 3 (Nr. Main Gate / RMU)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013,1127-DTJ-2012	02/08/2020	01/08/2021
UERL/AIR/FPS/41	Fine Particulate Sampler	137-DTD-2013	03/08/2020	02/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.26
3.	Volume of Air Sampled for PM ₁₀	m ³	1814
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	70	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	25	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	14.9	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	20.4	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

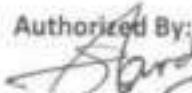
***** End of Report *****

Checked By:


Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-05/05

Note: This report is subject to Terms and Conditions mentioned overleaf.

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. Dahajil, Bhavnagar, Gujarat.

CIN:U71900GJ2012

TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775320000010016F			
Test Report No.:	URA/20/10/A-069	Report Issue Date:	31/10/2020
Service Request form No.:	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.:	URA/ID/A-20/10/069	Field Data Sheet No.:	URA/FDS/A-20/10/069
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	26/10/2020	Date of Testing	28/10/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cal. Date	Next Cal. Date
UERL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013,1139-DTA-2013	02/08/2020	01/08/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2020	02/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.22
3.	Volume of Air Sampled for PM ₁₀	m ³	1756
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	63	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	22	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	12.5	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	17.1	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:


Opinion & Interpretation (if required):

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

Checked By:


Nikunj D. Patel
 (Chemist)
 Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
 (Manager - Operations)
 UERL/AIR/F-05/05

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Extended Work Office : G.I.D.C., Sector-11, Bhavnagar, Gujarat.

CIN U73

TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775320000010014F

Test Report No.:	URA/20/10/A-067	Report Issue Date:	31/10/2020
Service Request form No.:	URA/SRF/10/047	Service Request Date	26/10/2020
Sample ID No.:	URA/ID/A-20/10/067	Field Data Sheet No.:	URA/FDS/A-20/10/067
Name & Add. of Customer:	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA.		
Dates of Sampling:	26/10/2020	Date of Testing	28/10/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 1 (Nr. ETP)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012,1039-DTC-2012	02/08/2020	01/08/2021
UERL/AIR/FPS/30	Fine Particulate Sampler	132-DTL-2012	02/08/2020	01/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.29
3.	Volume of Air Sampled for PM ₁₀	m ³	1857
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results

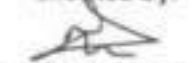
DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	75	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	26	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	14.3	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	19.8	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

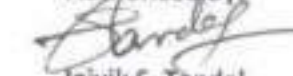
***** End of Report *****

Checked By:


Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-05/05

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Extended Work Office : G.I.D.C. Dahajli, Bharuch, Gujarat.

CIN U7

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775320000010983F			
Test Report No.:	URA/20/11/A-052	Report Issue Date:	01/12/2020
Service Request form No.:	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.:	URA/ID/A-20/11/052	Field Data Sheet No.:	URA/FDS/A-20/11/052
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	25/11/2020	Date of Testing	27/11/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 3 (Nr. Main Gate / RMU)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013, 1127-DTJ-2012	02/08/2020	01/08/2021
UERL/AIR/FPS/41	Fine Particulate Sampler	137-DTD-2013	03/08/2020	02/08/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.27
3.	Volume of Air Sampled for PM ₁₀	m ³	1828
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter, (PM ₁₀)	µg/m ³	76	100	IS - 5182, Part - 23
2.	Particulate Matter, (PM _{2.5})	µg/m ³	27	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	16.3	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	23.5	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

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

Checked By:


Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:


Jalvik S. Tandel
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UERL/AIR/F-05/05

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TEST REPORT (AMBIENT AIR MONITORING)

URL - TC77532000010984F			
Test Report No.:	URA/20/11/A-053	Report Issue Date:	01/12/2020
Service Request form No.:	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.:	URA/ID/A-20/11/053	Field Data Sheet No.:	URA/FDS/A-20/11/053
Name & Add. of Customer:	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	25/11/2020	Date of Testing	27/11/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013, 1139-DTA-2013	02/08/2020	01/08/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2020	02/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.28
3.	Volume of Air Sampled for PM ₁₀	m ³	1843
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	66	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	23	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	13.8	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	19.5	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (If required):

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

Checked By:


Nikunj D. Patel
(Chemist)
Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-05/05

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TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775320000010982F			
Test Report No.:	URA/20/11/A-051	Report Issue Date:	01/12/2020
Service Request form No.:	URA/SRF/11/040	Service Request Date	25/11/2020
Sample ID No.:	URA/ID/A-20/11/051	Field Data Sheet No.:	URA/FDS/A-20/11/051
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	25/11/2020	Date of Testing	27/11/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 1 (Nr. ETP)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012, 1039-DTC-2012	02/08/2020	01/08/2021
UERL/AIR/FPS/30	Fine Particulate Sampler	132-DTL-2012	02/08/2020	01/08/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.23
3.	Volume of Air Sampled for PM ₁₀	m ³	1771
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	82	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	28	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	15.6	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	21.4	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

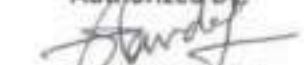
***** End of Report *****

Checked By:


Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:


Jalvik S. Tandel
(Manager - Operations)
UERL/AIR/F-05/05

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TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775321000000115F			
Test Report No.:	URA/20/12/A-061	Report Issue Date:	02/01/2021
Service Request form No.:	URA/SRF/12/D46	Service Request Date	28/12/2020
Sample ID No.:	URA/ID/A-20/12/061	Field Data Sheet No.:	URA/FDS/A-20/12/061
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	28/12/2020	Date of Testing	30/12/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 3 (Nr. Main Gate / RMU)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013, 1127-DTJ-2012	02/08/2020	01/08/2021
UERL/AIR/FPS/41	Fine Particulate Sampler	137-DTD-2013	03/08/2020	02/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.25
3.	Volume of Air Sampled for PM ₁₀	m ³	1800
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%


Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	80	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	29	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	15.9	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	24.5	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:
Opinion & Interpretation (if required):

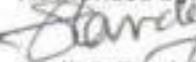
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Checked By:


Nikunj D. Patel
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Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
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UERL/AIR/F-05/05

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TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775321000000114F			
Test Report No.:	URA/20/12/A-060	Report Issue Date:	02/01/2021
Service Request form No.:	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.:	URA/ID/A-20/12/060	Field Data Sheet No.:	URA/FDS/A-20/12/060
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	28/12/2020	Date of Testing	30/12/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 1 (Nr. ETP)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012,1039-DTC-2012	02/08/2020	01/08/2021
UERL/AIR/FP5/30	Fine Particulate Sampler	132-DTL-2012	02/08/2020	01/08/2021

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.22
3.	Volume of Air Sampled for PM ₁₀	m ³	1756
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing: Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	77	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	28	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	12.3	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	23.4	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):


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

Checked By:


Nikunj D. Patel
 (Chemist)

Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
 (Manager - Operations)
 UERL/AIR/F-05/05

Note: This report is subject to Terms and Conditions mentioned overleaf.

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775321000000116F			
Test Report No.:	URA/20/12/A-062	Report Issue Date:	02/01/2021
Service Request form No.:	URA/SRF/12/046	Service Request Date	28/12/2020
Sample ID No.:	URA/ID/A-20/12/062	Field Data Sheet No.:	URA/FDS/A-20/12/062
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling:	28/12/2020	Date of Testing	30/12/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cal. Date	Next Cal. Date
UERL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013,1139-DTA-2013	02/08/2020	01/08/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2020	02/08/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.21
3.	Volume of Air Sampled for PM ₁₀	m ³	1742
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**


DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter, (PM ₁₀)	µg/m ³	69	100	IS - 5182, Part - 23
2.	Particulate Matter, (PM _{2.5})	µg/m ³	25	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	10.6	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	18.7	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Remarks:

Opinion & Interpretation (if required):

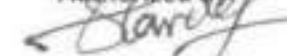
***** End of Report *****

Checked By:


Nikunj D. Patel
(Chemist)

Page No.: 1 of 1

Authorized By:


Jaivik S. Tandel
(Manager - Operations)
UERL/AIR/F-05/05

Note: This report is subject to Terms and Conditions mentioned overleaf.

Analysis Report (CETP Inlet)
M/s Dorf Ketel Chemicals India Pvt. Ltd.

Mar-21

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD	Chloride	NH3-N
				6.5-8.5	2100	800	2000	1000	1000	50
					mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
1	1-Mar-21	209620	85	8.28	988	54	216	72	868	39.5
2	2-Mar-21	209705	85	8.43	938	56	242	81	857	41.2
3	3-Mar-21	209790	85	8.42	944	52	238	79	872	42.3
4	4-Mar-21	209875	85	8.29	1121	52	252	84	846	38.7
5	5-Mar-21	209960	85	7.97	1025	48	283	94	818	36.6
6	6-Mar-21	210045	85	7.54	988	54	216	72	868	39.5
7	7-Mar-21	210130	85	8.25	938	56	242	81	857	41.2
8	8-Mar-21	210215	85	8.18	944	52	238	79	872	42.3
9	9-Mar-21	210300	85	8.31	1131	41	251	84	897	48.9
10	10-Mar-21	210385	85	8.25	1115	49	191	64	848	46.5
11	11-Mar-21	210470	85	8.45	1019	43	236	79	849	42.2
12	12-Mar-21	210555	85	8.45	1063	41	212	71	827	40.8
13	13-Mar-21	210640	85	8.31	1121	52	252	84	846	38.7
14	14-Mar-21	210725	85	8.15	1115	49	191	64	848	46.5
15	15-Mar-21	210810	85	8.26	1019	43	236	79	849	42.2
16	16-Mar-21	210895	85	8.25	1063	41	212	71	827	40.8
17	17-Mar-21	210980	85	8.45	1121	52	252	84	846	38.7
18	18-Mar-21	211065	85	8.45	1025	48	283	94	818	36.6
19	19-Mar-21	211150	85	8.31	1131	41	251	84	897	48.9
20	20-Mar-21	211235	85	8.15	1115	49	191	64	848	46.5
21	21-Mar-21	211320	85	8.28	1019	43	236	79	849	42.2
22	22-Mar-21	211405	85	8.43	1063	41	212	71	827	40.8
23	23-Mar-21	211490	85	8.42	1121	52	252	84	846	38.7
24	24-Mar-21	211575	85	8.29	1063	41	212	71	827	40.8
25	25-Mar-21	211660	85	8.15	1121	52	252	84	846	38.7
26	26-Mar-21	211745	85	8.28	1025	48	283	94	818	36.6
27	27-Mar-21	211830	85	8.43	988	54	216	72	868	39.5
28	28-Mar-21	211915	85	8.42	938	56	242	81	857	41.2
29	29-Mar-21	212000	85	8.25	1063	41	212	71	827	40.8
30	30-Mar-21	212085	85	8.45	1121	52	252	84	846	38.7
31	31-Mar-21	212170	85	8.45	1025	48	283	94	818	36.6
32	1-Apr-21	212255								
			2635							

For

MPSEZ Utilities Ltd

M/s Dorf Ketal Chemicals India Pvt. Ltd.

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD	Chloride	NH3-N
				6.5-8.5	2100	800	2000	1000	1000	50
					mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
1	01-Feb-21	207240	85	8.28	1025	48	283	94	818	36.6
2	02-Feb-21	207325	85	8.43	988	54	216	72	868	39.5
3	03-Feb-21	207410	85	8.42	938	56	242	81	857	41.2
4	04-Feb-21	207495	85	8.29	944	52	238	79	872	42.3
5	05-Feb-21	207580	85	7.97	1092	64	217	114	849	45.5
6	06-Feb-21	207665	85	7.54	1105	75	281	131	867	41.5
7	07-Feb-21	207750	85	8.25	1379	59	255	85	917	40.5
8	08-Feb-21	207835	85	8.18	1255	60	307	102	848	40.0
9	09-Feb-21	207920	85	8.31	1270	52	213	71	846	45.0
10	10-Feb-21	208005	85	8.25	1131	41	251	84	897	48.9
11	11-Feb-21	208090	85	8.45	1115	49	191	64	848	46.5
12	12-Feb-21	208175	85	8.45	1019	43	236	79	849	42.2
13	13-Feb-21	208260	85	8.31	1063	41	212	71	827	40.8
14	14-Feb-21	208345	85	8.15	1121	52	252	84	846	38.7
15	15-Feb-21	208430	85	8.28	1025	48	283	94	818	36.6
16	16-Feb-21	208515	85	8.25	1131	41	251	84	897	48.9
17	17-Feb-21	208600	85	8.45	1115	49	191	64	848	46.5
18	18-Feb-21	208685	85	8.45	1019	43	236	79	849	42.2
19	19-Feb-21	208770	85	8.31	1063	41	212	71	827	40.8
20	20-Feb-21	208855	85	8.15	1121	52	252	84	846	38.7
21	21-Feb-21	208940	85	8.28	1025	48	283	94	818	36.6
22	22-Feb-21	209025	85	8.43	988	54	216	72	868	39.5
23	23-Feb-21	209110	85	8.42	938	56	242	81	857	41.2
24	24-Feb-21	209195	85	8.29	944	52	238	79	872	42.3
25	25-Feb-21	209280	85	8.15	1121	52	252	84	846	38.7
26	26-Feb-21	209365	85	8.28	1025	48	283	94	818	36.6
27	27-Feb-21	209450	85	8.43	988	54	216	72	868	39.5
28	28-Feb-21	209535	85	8.42	938	56	242	81	857	41.2
29	01-Mar-21	209620		8.29	944	52	238	79	872	42.3
			2380							

For

MPSEZ Utilities Ltd

Self

Analysis Report (CETP Inlet)

M/s Dorf Ketal Chemicals India Pvt. Ltd.

Jan-21

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD	Chloride	NH3-N
				6.5-8.5	2100	800	2000	1000	1000	50
					mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
1	01-Jan-21	204605	85	8.28	1025	48	283	94	818	36.6
2	02-Jan-21	204690	85	8.43	988	54	216	72	868	39.5
3	03-Jan-21	204775	85	8.42	938	56	242	81	857	41.2
4	04-Jan-21	204860	85	8.29	944	52	238	79	872	42.3
5	05-Jan-21	204945	85	7.97	1092	64	217	114	849	45.5
6	06-Jan-21	205030	85	7.54	1105	75	281	131	867	41.5
7	07-Jan-21	205115	85	8.25	1379	59	255	85	917	40.5
8	08-Jan-21	205200	85	8.18	1255	60	307	102	848	40.0
9	09-Jan-21	205285	85	8.31	1270	52	213	71	846	45.0
10	10-Jan-21	205370	85	8.25	1131	41	251	84	897	48.9
11	11-Jan-21	205455	85	8.45	1115	49	191	64	848	46.5
12	12-Jan-21	205540	85	8.45	1019	43	236	79	849	42.2
13	13-Jan-21	205625	85	8.31	1063	41	212	71	827	40.8
14	14-Jan-21	205710	85	8.15	1121	52	252	84	846	38.7
15	15-Jan-21	205795	85	8.28	1025	48	283	94	818	36.6
16	16-Jan-21	205880	85	8.25	1131	41	251	84	897	48.9
17	17-Jan-21	205965	85	8.45	1115	49	191	64	848	46.5
18	18-Jan-21	206050	85	8.45	1019	43	236	79	849	42.2
19	19-Jan-21	206135	85	8.31	1063	41	212	71	827	40.8
20	20-Jan-21	206220	85	8.15	1121	52	252	84	846	38.7
21	21-Jan-21	206305	85	8.28	1025	48	283	94	818	36.6
22	22-Jan-21	206390	85	8.43	988	54	216	72	868	39.5
23	23-Jan-21	206475	85	8.42	938	56	242	81	857	41.2
24	24-Jan-21	206560	85	8.29	944	52	238	79	872	42.3
25	25-Jan-21	206645	85	8.15	1121	52	252	84	846	38.7
26	26-Jan-21	206730	85	8.28	1025	48	283	94	818	36.6
27	27-Jan-21	206815	85	8.43	988	54	216	72	868	39.5
28	28-Jan-21	206900	85	8.42	938	56	242	81	857	41.2
29	29-Jan-21	206985	85	8.29	944	52	238	79	872	42.3
30	30-Jan-21	207070	85	7.97	1092	64	217	114	849	45.5
31	31-Jan-21	207155	85	7.54	1105	75	281	131	867	41.5
32	01-Feb-21	207240								
			2635							

For

MPSEZ Utilities Ltd

Signature

Analysis Report (CETP Inlet)

M/s Dorf Ketal Chemicals India Pvt. Ltd.

Dec-20

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD	Chloride	NH3-N
				6.5-8.5	2100	800	2000	1000	1000	50
					mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
1	01-Dec-20	201970	85	8.41	1544	75	364	121	842	47.2
2	02-Dec-20	202055	85	8.34	1512	79	397	132	832	42.7
3	03-Dec-20	202140	85	8.29	1526	64	427	142	861	45.8
4	04-Dec-20	202225	85	8.30	1384	70	368	123	882	44.5
5	05-Dec-20	202310	85	8.21	1456	72	347	116	892	42.5
6	06-Dec-20	202395	85	8.35	1542	80	384	128	890	45.3
7	07-Dec-20	202480	85	8.28	1580	79	387	129	841	45.6
8	08-Dec-20	202565	85	8.43	1682	86	416	139	843	44.0
9	09-Dec-20	202650	85	8.36	1461	67	342	114	912	45.2
10	10-Dec-20	202735	85	8.28	1424	75	393	131	854	43.2
11	11-Dec-20	202820	85	8.13	1379	82	364	121	858	44.5
12	12-Dec-20	202905	85	8.41	1446	74	297	99	902	41.8
13	13-Dec-20	202990	85	8.25	1379	59	255	85	917	40.5
14	14-Dec-20	203075	85	8.18	1255	60	307	102	848	40.0
15	15-Dec-20	203160	85	8.31	1270	52	213	71	846	45.0
16	16-Dec-20	203245	85	8.25	1131	41	251	84	897	48.9
17	17-Dec-20	203330	85	8.45	1115	49	191	64	848	46.5
18	18-Dec-20	203415	85	8.45	1019	43	236	79	849	42.2
19	19-Dec-20	203500	85	8.31	1063	41	212	71	827	40.8
20	20-Dec-20	203585	85	8.15	1121	52	252	84	846	38.7
21	21-Dec-20	203670	85	8.28	1025	48	283	94	818	36.6
22	22-Dec-20	203755	85	8.43	988	54	216	72	868	39.5
23	23-Dec-20	203840	85	8.42	938	56	242	81	857	41.2
24	24-Dec-20	203925	85	8.29	944	52	238	79	872	42.3
25	25-Dec-20	204010	85	7.97	1092	64	217	72	849	45.5
26	26-Dec-20	204095	85	7.54	1105	75	281	94	867	41.5
27	27-Dec-20	204180	85	7.57	1053	64	227	76	838	43.5
28	28-Dec-20	204265	85	7.72	1184	74	250	83	905	37.2
29	29-Dec-20	204350	85	7.70	885	78	258		862	33.8
30	30-Dec-20	204435	85	7.82	783	82	182		852	34.2
31	31-Dec-20	204520	85	7.57	1092	77	215		835	38.5
32	01-Jan-21	204605								
			2635							

For

MPSEZ Utilities Ltd

Analysis Report (CETP Inlet)

M/s Dorf Ketal Chemicals India Pvt. Ltd.

Nov-20

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD	Chloride	NH3-N
				6.5-8.5	2100	800	2000	1000	1000	50
					mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
1	01-Nov-20	199420	85	7.89	1581	54	286	95	826	41.7
2	02-Nov-20	199505	85	7.54	1572	56	258	86	831	38.5
3	03-Nov-20	199590	85	7.82	1835	65	277	92	874	44.8
4	04-Nov-20	199675	85	8.24	1734	54	291	97	865	41.0
5	05-Nov-20	199760	85	8.45	1570	70	352	117	842	40.5
6	06-Nov-20	199845	85	8.38	1996	82	364	121	868	40.2
7	07-Nov-20	199930	85	8.42	1966	80	348	116	875	43.5
8	08-Nov-20	200015	85	8.14	1961	74	327	109	892	37.6
9	09-Nov-20	200100	85	8.22	1524	68	305	102	834	44.5
10	10-Nov-20	200185	85	8.31	1644	71	314	105	852	42.3
11	11-Nov-20	200270	85	8.18	1279	45	242	81	758	38.2
12	12-Nov-20	200355	85	8.42	1172	44	180	60	742	46.6
13	13-Nov-20	200440	85	8.27	1324	52	153	51	760	42.5
14	14-Nov-20	200525	85	8.48	1069	35	142	47	731	36.5
15	15-Nov-20	200610	85	8.24	1429	48	128	43	751	42.0
16	16-Nov-20	200695	85	8.13	1733	56	188	63	815	46.0
17	17-Nov-20	200780	85	8.13	1468	48	172	57	775	44.2
18	18-Nov-20	200865	85	8.46	1417	42	166	55	767	43.5
19	19-Nov-20	200950	85	8.48	1368	72	180	60	754	40.8
20	20-Nov-20	201035	85	8.31	1422	66	175	58	770	41.5
21	21-Nov-20	201120	85	8.15	1379	58	168	56	756	40.5
22	22-Nov-20	201205	85	8.10	1320	47	240	80	760	43.5
23	23-Nov-20	201290	85	7.90	1245	55	185	62	741	44.0
24	24-Nov-20	201375	85	8.33	1232	37	223	74	759	40.8
25	25-Nov-20	201460	85	8.25	1376	41	207	69	792	38.6
26	26-Nov-20	201545	85	8.14	1261	47	241	80	816	38.5
27	27-Nov-20	201630	85	8.26	1322	54	256	85	842	40.8
28	28-Nov-20	201715	85	8.13	1270	36	217		865	41.3
29	29-Nov-20	201800	85	7.99	1265	42	250		844	42.2
30	30-Nov-20	201885	85	8.22	1382	50	242		823	38.0
32	01-Dec-20	201970								
			2550							

For

MPSEZ Utilities Ltd

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Analysis Report (CETP Inlet)

M/s Dorf Ketel Chemicals India Pvt. Ltd.

Oct-20

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD	Chloride	NH3-N
1	01-Oct-20	196785	85	8.20	1891	192	425	142	836	37.5
2	02-Oct-20	196870	85	8.42	1440	166	437	146	848	41.2
3	03-Oct-20	196955	85	8.03	1285	171	412	137	821	35.6
4	04-Oct-20	197040	85	8.23	1386	140	392	131	816	37.5
5	05-Oct-20	197125	85	8.34	1514	134	423	141	828	45.2
6	06-Oct-20	197210	85	8.23	1189	115	380	127	805	44.3
7	07-Oct-20	197295	85	8.14	1327	124	396	132	815	36.7
8	08-Oct-20	197380	85	8.22	1521	93	377	126	742	46.4
9	09-Oct-20	197465	85	8.43	1310	67	342	114	802	40
10	10-Oct-20	197550	85	8.11	1530	41	202	67	767	35.7
11	11-Oct-20	197635	85	8.15	1425	38	241	80	792	33.5
12	12-Oct-20	197720	85	7.97	1219	28	277	92	758	35.8
13	13-Oct-20	197805	85	8.35	1477	37	218	73	805	25.1
14	14-Oct-20	197890	85	8.55	1404	42	249	83	834	26.7
15	15-Oct-20	197975	85	8.61	1467	45	262	87	844	22.2
16	16-Oct-20	198060	85	8.32	1664	43	224	75	849	18.4
17	17-Oct-20	198145	85	8.41	1482	32	285	95	842	15.9
18	18-Oct-20	198230	85	8.23	1392	47	282	94	868	20.5
19	19-Oct-20	198315	85	8.38	1521	28	265	88	853	17.3
20	20-Oct-20	198400	85	8.20	1582	41	272	91	813	21.5
21	21-Oct-20	198485	85	8.41	1765	33	212	71	820	20.5
22	22-Oct-20	198570	85	8.42	1626	46	276	92	832	26.5
23	23-Oct-20	198655	85	8.37	1628	52	258	86	856	28.1
24	24-Oct-20	198740	85	8.48	1810	42	268	89	842	15.8
25	25-Oct-20	198825	85	8.41	1772	41	285	95	810	18.4
26	26-Oct-20	198910	85	8.46	1727	28	250	83	881	22.3
27	27-Oct-20	198995	85	7.88	1757	54	262	87	878	25.1
28	28-Oct-20	199080	85	8.15	1677	40	276	92	871	30.3
29	29-Oct-20	199165	85	8.43	1870	37	242	81	856	30.7
30	30-Oct-20	199250	85	8.32	1755	42	284		833	35.1
31	31-Oct-20	199335	85	8.34	1841	54	315		846	37.4
32	01-Nov-20	199420								
			2635							

For

MPSEZ Utilities Ltd

9



Royal

Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bai Adalat, Gondal Road, RAJKOT - 360 002.

Ph.: +91 281 2360695 • E-mail : royalsenvironment@live.com • admin@royalconsultancy.com

Ref.No.: 904/10/2020-21

Date: 29/10/2020

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of Company: Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparell Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Test Method : As per IS Standards - 5182_2/4/6

Sr.No.	Particulars	Unit	Location No. 1	Location No. 2
01.	Location of Sampling	---	Nr. New Security Gate	Nr. Old Security Gate
02.	Date of sampling	---	24/10/2020	24/10/2020
03.	Time of sampling	Hr.	11.00	11.30
04.	Duration of sampling	Hrs.	24.00	24.00
05.	Dominant Wind Direction (From)	---	NE	NE
06.	Average Wind Speed	Km/Hr.	7.3	7.5
07.	Average flow rate during sampling	m ³ /minute	1.2	1.1
08.	Average flow rate for Gas sampling	Meter	0.2	0.2
09.	Permissible Limits of PM _{2.5}	µg/m ³	60	60
10.	Measured Concentration of PM _{2.5}	µg/m ³	37	43
11.	Permissible Limits of PM ₁₀	µg/m ³	100	100
12.	Measured Concentration of PM ₁₀	µg/m ³	77	66
13.	Permissible Limits of SO ₂	µg/m ³	80	80
14.	Measured Concentration of SO ₂	µg/m ³	13.6	12.2
15.	Permissible Limits of NO ₂	µg/m ³	80	80
16.	Measured Concentration of NO ₂	µg/m ³	21.5	24.3

Instrument Used : Ecotech make AAS - 217 BL , Gaseous Sampler AAS 109, PM 2.5 Sampler AAS 127

Calibration Done on : 15/06/2020



Jagdish
Analyst



Royal

Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s. Bal Adalat, Gondal Road, RAJKOT - 360 002

Ph. : +91 281 2360695 • E-mail : royaleenvironment@live.com • admin@royalconsultancy.com

Ref.No.: 1004/01/2020-21

Date: 30/01/2021

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of Company: Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparels Park,
(MITAP), Plot No. - 07
Survey No. -141, Mundra,
Kutch-370421

Test Method : As per IS Standards - 5182 2/4/6

Sr.No.	Particulars	Unit	Location No. 1	Location No. 2
01.	Location of Sampling	---	Nr. New Security Gate	Nr. Old Security Gate
02.	Date of sampling	---	28/01/2021	28/01/2021
03.	Time of sampling	Hr.	11.10	11.40
04.	Duration of sampling	Hrs.	24.00	24.00
05.	Dominant Wind Direction (From)	---	NW	NW
06.	Average Wind Speed	Km/Hr.	7.5	7.8
07.	Average flow rate during sampling	m ³ /minute	1.1	1.2
08.	Average flow rate for Gas sampling	Meter	0.2	0.2
09.	Permissible Limits of PM _{2.5}	µg/m ³	60	60
10.	Measured Concentration of PM _{2.5}	µg/m ³	35	40
11.	Permissible Limits of PM ₁₀	µg/m ³	100	100
12.	Measured Concentration of PM ₁₀	µg/m ³	75	64
13.	Permissible Limits of SO ₂	µg/m ³	80	80
14.	Measured Concentration of SO ₂	µg/m ³	12.5	11.6
15.	Permissible Limits of NO ₂	µg/m ³	80	80
16.	Measured Concentration of NO ₂	µg/m ³	20.6	23.5

Instrument Used : Ecotech make AAS - 217 BL , Gaseous Sampler AAS 109, PM 2.5 Sampler AAS 127

Calibration Done on. : 15/06/2020





Report No: - EE/LAB/EA/2021/03/123

Date: 23/03/2021

ANALYSIS REPORT

Name and Address Of Client	M/s. Oriental Carbon & Chemicals Ltd. Plot No. 141/P, Mundra SEZ Taluka : Mundra Dist. Kutch 370421
Sampling Done By	Earth Envirotech Team
Method of Sampling	IS 5182: Part - 5: 2014
Analysis Start on	15/03/2021
Analysis end on	19/03/2021

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	National Ambient Air Quality Standards (NAAQS)	Reference Method	Results			
				Location	Near Main Gate	Nr. CF boiler	Nr. Packaging line 4	Near ETP plant
				Date of Sampling	12.03.2021	12.03.2021	13.03.2021	13.03.2021
				Code	EE/21/Q4/OCCL/AA1	EE/21/Q4/OCCL/AA2	EE/21/Q4/OCCL/AA3	EE/21/Q4/OCCL/AA4
1.	Particulate Matter PM ₁₀	µg/m ³	100	IS 5182 Part 23 : 2017	79.42	101.43	80.65	107.44
2.	Particulate Matter PM _{2.5}	µg/m ³	60	CPCB manual Volume I	32.56	36.30	31.31	38.79
3.	Sulphur Dioxide (SO ₂)	µg/m ³	80	IS 5182 Part 2 : 2017	22.80	26.81	25.88	19.57
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	80	IS 5182 Part 6 : 2017	27.48	29.22	26.16	22.98

Checked By:




- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.



Report No: - EE/LAB/EA/2021/03/124

Date: 23/03/2021

ANALYSIS REPORT

Name and Address Of Client	M/s. Oriental Carbon & Chemicals Ltd. Plot No. 141/P, Mundra SEZ Taluka : Mundra Dist. Kutch 370421
Sampling Done By	Earth Envirotech Team
Sampling Equipment	Sound Level Meter (HTC/SL-1350)
Sampling Start on	13.03.2021
Sampling end on	13.03.2021
Method used for Sampling	IS 9876 : 1981 & 9989 : 1981
Sampling code	EE/21/Q4/OCCL/N1-N6

NOISE MONITORING RESULTS

Sr. No.	Location Name	Units	Day Time	
			Observed Value	Standard Limit
1.	Near Main gate	dB (A)	65.4	75.0
2.	Near Refiner Area	dB (A)	74.9	75.0
3.	Near ETP plant	dB (A)	74.0	75.0
4.	Near CF Boiler	dB (A)	74.2	75.0
5.	Near Packaging area Line-3 & 4	dB (A)	54.1	75.0
6.	Near Material gate	dB (A)	55.5	75.0

Checked By:




- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.



Report No: - EE/LAB/EA/2021/03/125

Date: 23/03/2021

ANALYSIS REPORT

Name and Address Of Client	M/s. Oriental Carbon & Chemicals Ltd. Plot No. 141/P, Mundra SEZ Taluka : Mundra Dist. Kutch 370421
Sampling Done By	Earth Envirotech Team
Analysis Start on	15/03/2021
Analysis end on	19/03/2021
Method Used for Sampling	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Method used for Gaseous Analysis	CO, CO ₂ , and O ₂ analyzed by Ace Multi gas Analyzer
Method used for SO ₂ analysis	IS 11255 : Part 2
Method Used for NO _x analysis	IS 11255 : Part 7
Method used for SPM analysis	IS 11255 : Part 1

STACK MONITORING ANALYSIS RESULTS

Stack Attached To	Refiner U1	Refiner U2	CF Boiler	D.G set 2
Fuel Used	LDO	LDO	FO	HSD
Stack Height (m)	10	10	40	22
Stack Diameter(mm)	300	300	1000	600
Sampling Date	12.03.2021	12.03.2021	13.03.2021	13.03.2021
Sample Code	EE/21/Q4/ OCCL/ST1	EE/21/Q4/ OCCL/ST2	EE/21/Q4/ OCCL/ST3	EE/21/Q4/ OCCL/ST4
SPM in Mg/NM ³ GPCB Limit - 150 mg/NM ³	75.74	80.15	101.03	79.75
SO ₂ in ppm GPCB Limit - 100 ppm	16.64	20.81	26.86	22.86
NO _x in ppm GPCB Limit - 50 ppm	11.89	13.01	20.19	14.05

Checked By: 


- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.



Report No: - EE/LAB/EA/2021/03/126

Date: 23/03/2021

ANALYSIS REPORT

Name and Address Of Client	M/s. Oriental Carbon & Chemicals Ltd. Plot No. 141/P, Mundra SEZ Taluka : Mundra Dist. Kutch 370421
Sampling Done By	Earth Envirotech Team
Method of Sampling	IS 3025 Part 1
Date of Sampling	12/03/2021
Date of Analysis	13/03/2021 - 22/03/2021
Mode of Collection	Grab

WASTE WATER ANALYSIS RESULTS (ETP)

Sr. No.	Parameters	Unit	Reference Method	GPCB limit for treated Effluent	Result		
					ETP Inlet	ETP Outlet	Aeration
	Sampling Location	--	--	--	EE/21/Q4/OCCL/WW1	EE/21/Q4/OCCL/WW2	EE/21/Q4/OCCL/WW3
	Sample Code	--	--	--			
1.	pH	--	IS 3025 (P-11)	6.5-8.5	6.58	6.65	6.52
2.	Temperature	°C	APHA 2550	40	26.9	27.1	26.9
3.	Total Suspended Solids	mg/l	APHA 2540 D	100	51.2	26.2	36.4
4.	Oil & Grease	mg/l	IS 3025 (P-39)	10	1.33	0.8	1.0
5.	Phenolic Compound	mg/l	IS 3025 (P-42)	2.0	BDL	BDL	BDL
6.	Ammonical Nitrogen	mg/l	IS 3025 (P-34)	50	5.84	2.93	3.3
7.	BOD (3 days at 27°C)	mg/l	IS 3025 (P-44)	30	33.75	9.30	12.8
8.	COD	mg/l	APHA 5220 B	100	142.7	47.57	87.21
9.	Chlorides	mg/l	IS 3025 (P-32)	600	420.7	297	395.4
10.	Total Dissolved Solids	mg/l	IS 3025 (P-16)	2100	1314	1104	1208
11.	SAR	--	IS 11624	26	10.95	8.9	9.63
12.	Total Chromium	mg/l	IS 3025 (P-52)	0.2	BDL	BDL	BDL
13.	Hexavalent Chromium	mg/l	IS 3025 (P-52)	0.1	BDL	BDL	BDL
14.	Copper	mg/l	APHA 3500 Cu B	1.0	BDL	BDL	BDL
15.	Total Iron (as Fe)	mg/l	IS 3025 (P-53)	1.0	BDL	BDL	BDL

BDL – Below Detectable Limit

 Checked By: 

 Authorized Signatory
GUJARAT

- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.



Report No: - EE/LAB/EA/2021/03/127

Date: 23/03/2021

ANALYSIS REPORT

Name and Address Of Client	M/s Oriental Carbon & Chemicals Ltd Plot No. 141/P, Mundra SEZ Taluka : Mundra Dist. Kutch 370421
Sampling Done By	Earth Envirotech Team
Method of Sampling	IS 3025 Part 1
Date of Sampling	12/03/2021
Date of Analysis	13/03/2021 – 22/03/2021
Mode of Collection	Grab

WASTE WATER ANALYSIS RESULTS (STP)

Sr. No.	Parameters	Unit	Reference Method	Result	
				STP inlet	STP outlet
	Sampling Location	--	--	EE/Q4/21/OCCL/WW4	EE/Q4/21/OCCL/WW5
	Sample Code	--	--		
1.	pH	---	IS 3025 (P-11)	6.38	6.78
2.	Temperature	°C	APHA 2550	27.1	27.1
3.	Total Suspended Solids	mg/l	APHA 2540 D	64.8	53.2
4.	Oil & Grease	mg/l	IS 3025 (P-39)	5.6	2.0
5.	Ammonical Nitrogen	mg/l	IS 3025 (P-34)	12.16	4.9
6.	Biochemical Oxygen Demand (3 days at 27°C)	mg/l	IS 3025 (P-44)	22.91	14.5
7.	Chemical Oxygen Demand	mg/l	APHA 5220 B Open reflux method	95.14	43.6
8.	Chlorides	mg/l	IS 3025 (P-32)	303.3	286.2
9.	Total Dissolved Solids	mg/l	IS 3025 (P-16)	842	706

Checked By: 


- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.





Report No: - EE/LAB/EA/2021/03/128

Date: 23/03/2021

ANALYSIS REPORT

Name and Address Of Client	M/s. Oriental Carbon & Chemicals Ltd. Plot No. 141/P, Mundra SEZ Taluka : Mundra Dist. Kutch 370421
Sampling Done By	Earth Envirotech Team
Method of Sampling	IS 3025 Part 1
Date of Sampling	12/03/2021
Date of Analysis	13/03/2021 - 22/03/2021
Mode of Collection	Grab

WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Reference Method	GPCB limit for treated effluent	Result				
	Sampling Location	--	--	--	ETP Inlet	ETP Outlet	Aeration	STP inlet	STP outlet
	Sample Code	--	--	--	EE/21/Q4/OCCL/WW1	EE/21/Q4/OCCL/WW2	EE/21/Q4/OCCL/WW3	EE/Q4/21/OCCL/WW4	EE/Q4/21/OCCL/WW5
1.	Colour	Units	APHA 2120	100	35	20	32	38	34
2.	Sulphate as SO ₄	mg/l	IS 3025 (P-24)	1000	147.3	120.71	129.4	132.91	117.28

Checked By:




- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.



Report No: - EE/LAB/EA/2021/03/129

Date: 23/03/2021

ANALYSIS REPORT

Name and Address Of Client	M/s. Oriental Carbon & Chemicals Ltd. Plot No. 141/P, Mundra SEZ Taluka : Mundra Dist. Kutch 370421
Sampling Done By	Earth Envirotech Team
Method of Sampling	EPA SW 846
Date of Sampling	12/03/2021
Date of Analysis	13/03/2021 - 17/03/2021
Sampling Location and Volume	ETP sludge
Sample Code	EE/21/Q4/OCCL/HW1

HAZARDOUS WASTE ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
1.	pH	—	7.4	EPA 9040
2.	Moisture Content	%	33.20	APHA 2540 D
3.	Loss on ignition	%	69	APHA 2540 E
4.	Volatile Solids	%	31	APHA 2540 E

Checked By:




- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.

Report No: - EE/LAB/EMR/2020/11/035

Date: 21/11/2020

ANALYSIS REPORT

Name and Address Of Client	M/s. Terram Geosynthetics Pvt. Ltd. Plot No.: 5, Block-B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.
Sampling Done By :	Earth Envirotech Team
Method of Sampling	IS 5182: Part - 5: 2014
Analysis Start on	12/11/2020
Analysis end on	18/11/2020

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	National Ambient Air Quality Standards (NAAQS)	Reference Method	Results
				Location of Sampling	Near Security Gate
				Date of Sampling	11/11/2020
				Date of Sample Receipt	11/11/2020
				Code	EE/1120/TGPL/AA1
1.	Particulate Matter PM ₁₀	µg/m ³	100	IS 5182 Part 23 : 2017	81.2
2.	Particulate Matter PM _{2.5}	µg/m ³	60	CPCB manual Volume I	34.9
3.	Sulphur Dioxide (SO ₂)	µg/m ³	80	IS 5182 Part 2 : 2017	22.6
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	80	IS 5182 Part 6 : 2017	25.7


Checked By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.

Report No: - EE/LAB/EMR/2020/11/034

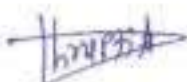
Date: 21/11/2020

ANALYSIS REPORT

Name and Address Of Client	M/s. Terram Geosynthetics Pvt. Ltd, Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.
Sampling Done By :	Earth Envirotech Team
Date of Sampling	11/11/2020
Sample Receipt in lab	11/11/2020
Sample ID	EE/1120/TGPL/ST1
Method Used for Sampling	Sampling : Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Location	Boiler
Sampling equipment	Yash stack monitoring kit
Date of Analysis	12/11/2020 to 21/11/2020

STACK MONITORING ANALYSIS RESULTS

Sr. no.	Parameter	Unit	Result	Limit as per GPCB	Method used
1.	Particulate Matter (PM)	mg/Nm ³	91.2	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	28.6	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (Nox)	ppm	27.2	50	IS 11255 : Part 7



Checked By:



Authorized Signatory:

- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports cannot be used as evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.

Report No: - EE/LAB/EMR/2020/11/037

Date: 21/11/2020

ANALYSIS REPORT

Name and Address Of Client	M/s. Terram Geosynthetics Pvt. Ltd. Plot No.: 5, Block – 8, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.
Sampling Done By :	Earth Envirotech Team
Date of Sampling	11/11/2020
Sample Receipt in lab	11/11/2020
Sample ID	EE/1120/TGPL/ST2
Method Used for Sampling	Sampling : Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Location	D. G. Set
Sampling equipment	Yash stack monitoring kit
Date of Analysis	12/11/2020 to 21/11/2020

STACK MONITORING ANALYSIS RESULTS

Sr.no	Parameter	Unit	Result	Limit as per GPCB	Method used
1.	Particulate Matter (PM)	mg/Nm ³	77.8	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	27.91	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (NO _x)	ppm	21.8	50	IS 11255 : Part 7


Checked By:


Authorized Signatory:

- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports cannot be used as evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.

Report No: - EE/LAB/EMR/2020/11/038

Date: 21/11/2020

ANALYSIS REPORT

Name and Address Of Client	M/s. Terram Geosynthetics Pvt. Ltd. Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.
Sampling Done By :	Earth Envirotech Team
Date of Sampling	11/11/2020
Sample Receipt in lab	11/11/2020
Sample ID	EE/1120/TGPL/ST3
Method Used for Sampling	Sampling : Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Location	Drying Oven
Sampling equipment	Yash stack monitoring kit
Date of Analysis	12/11/2020 to 21/11/2020

STACK MONITORING ANALYSIS RESULTS

Sr.no	Parameter	Unit	Result	Limit as per GPCB	Method used
1.	Particulate Matter (PM)	mg/Nm ³	73.4	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	15.8	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (Nox)	ppm	11.3	50	IS 11255 : Part 2


Checked By:


Authorized Signatory:

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports cannot be used as evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.

Report No: - EE/LAB/EMR/2020/11/039

Date: 21/11/2020

ANALYSIS REPORT

Name and Address Of Client	M/s. Terram Geosynthetics Pvt. Ltd. Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.
Sampling Done By :	Earth Envirotech Team
Sampling Equipment	Sound Level Meter (HTC/SL-1350)
Sampling Start on	11/11/2020
Sampling end on	11/11/2020
Method used for Sampling	IS 9876 : 1981 & 9989 : 1981
Sampling code	EE/1120/TGPL/N1-N3

NOISE MONITORING RESULTS

Sr. No.	Location Name	Units	Day Time			Night Time		
			Observed Value	Observed (Time)	Standard Limit	Observed Value	Observed (Time)	Standard Limit
1.	Converting area	dB (A)	72.6	11:25 am	75.0	65.4	10:45 pm	70.0
2.	Near Capstan Machine	dB (A)	71.4	11:30 am	75.0	66.7	10:50 pm	70.0
3.	Near Winder Area	dB (A)	73.5	11:35 am	75.0	68.2	10:55 pm	70.0
4.	Extruder Floor	dB (A)	72.8	11:20 am	75.0	69.4	10:40 pm	70.0
5.	Brattice	dB (A)	74.5	11:50 am	75.0	68.1	11:10 pm	70.0
6.	Utility Area	dB (A)	70.1	11:40 am	75.0	67.5	11:20 pm	70.0



Checked By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.

Report No: - EE/LAB/EMR/2020/11/040

Date: 21/11/2020

Name and Address Of Client	M/s. Terram Geosynthetics Pvt. Ltd. Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.
Sampling Done By :	Earth Envirotech Team
Sampling Equipment	Lux Meter (LX-101 A)
Sampling Start on	11/11/2020
Sampling end on	11/11/2020
Method used for Sampling	Lutron - LX-101 Inst. Manual
Sampling code	EE/I120/TCPL/L1

LUX MONITORING RESULTS

Sr. No.	Location Name	In Lux (Day Time)	In Lux (Night Time)	Illumination Lux (As per Standard IS-3646 Part-II)
1.	Near Capstan Machine	421	238	200



Checked By :


 Authorized Signatory:

- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.

Report No: - EE/LAB/EMR/2020/11/041

Date: 21/11/2020

ANALYSIS REPORT

Name and Address Of Client	M/s. Terram Geosynthetics Pvt. Ltd. Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.
Sampling Done By :	Earth Envirotech Team
Method of Sampling	IS 3025 Part 1
Date of Sampling	11/11/2020
Date of Sample receipt	12/11/2020
Date of Analysis	12/11/2020 - 21/11/2020
Type of Sample	Waste Water

WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Reference Method	Result
	Sampling Location	—	—	ETP outlet
	Sample Code	—	—	EE/1120/TGPL/WW1
1.	pH at 25°C	—	IS 3025 (P-11)	7.2
2.	Temperature	°C	APHA 2550 B	28
3.	Total Dissolved Solids	mg/l	IS 3025 (P-16)	1332
4.	Total Suspended Solids	mg/l	IS 3025 (P-17)	30
5.	Chemical Oxygen Demand	mg/l	IS 3025 (P-58)	63.82
6.	Biochemical Oxygen Demand (5 days at 20°C)	mg/l	IS 3025 (P-44)	13.09
7.	Oil & Grease	mg/l	IS 3025 (P-39)	1.2
8.	Ammonical Nitrogen	mg/l	IS 3025 (P-34)	5.15
9.	Residual Chlorine	mg/l	IS 3025 (P-26)	Nil
10.	Percent Sodium	%	IS 3025 (P-45)	6.1

BDL – Below Detectable Limit.



Checked By:



Authorized Signatory:

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.

FORM NO.37

(Prescribed under rule 12-B)

Register containing particulars of monitoring of working environment required under section 7-A (a) (e)

1. Name of the Department/Plant: **M/s. Terram Geosynthetics Pvt. Ltd.**
2. Raw materials, by products and finished products involving in the process : Total Dust
3. Particular of sampling

Date of Sampling: 11/11/2020

ISSUE DATE	21/11/2020
REF. NO	EE/TGPL/2020/042

Sr. No.	Location/ Operation Mentioned	Identified Contaminant	Sampling instrument used	Air borne Contamination			TWA concentration (As given in second schedule)	Reference method	No of workers Exposed at the location being monitored	Remarks	Sign	Name of person taking sample
				Number of Sample	Range	Average	Mg/m ³					
1	Near boiler area	Total Dust	RDS	01	5-6	5.5	10	Gravimetric	08	—		Mr. Sagar Bhandari
2	Near recycling area			01	5-6	5.4	10	Gravimetric	06	—		

For, Earth Envirotech



Authorized Signatory,

Report No: - EE/ENV/2021/01/047

Date: 15/01/2021

ANALYSIS REPORT

(For the month of January - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/AA1
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch	Location	Near Security Gate
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	09/01/2021
Analysis Starts on	09/01/2021	Sampling Method	IS 5182: Part - 5: 2014
Analysis Completion On	13/01/2021	Sample Received Date	09/01/2021

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS)	Reference Method
			Near Security Gate		
1.	Particulate Matter PM ₁₀	µg/m ³	75.48	100	IS 5182 Part 23 : 2017
2.	Particulate Matter PM _{2.5}	µg/m ³	32.52	60	CPCB manual Volume I
3.	Sulphur Dioxide (SO ₂)	µg/m ³	21.65	80	IS 5182 Part 2 : 2017
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	25.23	80	IS 5182 Part 6 : 2017



Checked By:



- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.



Report No: - EE/ENV/2021/01/048

Date: 15/01/2021

ANALYSIS REPORT

(For the month of January - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/ST1
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	Boiler
		Sampling Instrument	Stack Monitoring Kit
Sampling Done By	Earth Envirotech Team	Date of Sampling	09/01/2021
Analysis Starts on	09/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/BO/2013-14
Analysis Completion On	13/01/2021	Sample Received Date	09/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Limit as per GPCB Norms	Reference Method
			Boiler		
1.	Particulate Matter (PM)	mg/Nm ³	93.5	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	27.6	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (NO _x)	ppm	26.4	50	IS 11255 : Part 7


Checked By:



- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.



Report No: - EE/ENV/2021/01/049

Date: 15/01/2021

ANALYSIS REPORT

(For the month of January - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/ST2
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	D.G.Set
		Sampling Instrument	Stack Monitoring Kit
Sampling Done By	Earth Envirotech Team	Date of Sampling	09/01/2021
Analysis Starts on	09/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	13/01/2021	Sample Received Date	09/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Limit as per GPCB Norms	Reference Method
			D.G.Set		
1.	Particulate Matter (PM)	mg/Nm ³	79.5	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	25.9	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (NO _x)	ppm	19.21	50	IS 11255 : Part 7


Checked By:



- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.



Report No: - EE/ENV/2021/01/050

Date: 15/01/2021

ANALYSIS REPORT

(For the month of January - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/ST3
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch,	Location	Drying Oven
		Sampling Instrument	Stack Monitoring Kit
Sampling Done By	Earth Envirotech Team	Date of Sampling	09/01/2021
Analysis Starts on	09/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	13/01/2021	Sample Received Date	09/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Limit as per GPCB Norms	Reference Method
			Drying Oven		
1.	Particulate Matter (PM)	mg/Nm ³	84.3	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	28.2	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (NO _x)	ppm	22.7	50	IS 11255 : Part 7



Checked By:



- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.



Report No: - EE/ENV/2021/01/051

Date: 15/01/2021

ANALYSIS REPORT

(For the month of January - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/N1-N5
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch,	Location	As per table
		Quantity	NA
		Date of Measurement	09/01/2021
Measurement Done By	Earth Envirotech Team	Sampling Instrument	Sound Level Meter (HTC/SL-1350)
Measurement Completion Date	09/01/2021	Sampling Method	IS 9876 : 1981 & 9989 : 1981

NOISE MONITORING RESULTS

Sr. No.	Location Name	Units	Day Time	Night Time
			Spot Noise Level dB (A) Maximum	Spot Noise Level dB (B) Maximum
Standard Limit		dB	75	70
1.	Converting area	dB	67.9	65.2
2.	Near Capstan Machine	dB	72.4	68.4
3.	Near Winder Area	dB	71.6	66.4
4.	Extruder Floor	dB	74.1	67.9
5.	Brattice	dB	70.5	69.1
6.	Utility Area	dB	74.3	68.7


Checked By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No: - EE/ENV/2021/01/052

Date: 15/01/2021

ANALYSIS REPORT

(For the month of January - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/L1
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch,	Location	As per table
		Quantity	NA
		Date of Measurement	09/01/2021
Measurement Done By	Earth Envirotech Team	Sampling Instrument	Lux Meter (LX-101 A)
Measurement Completion Date	09/01/2021	Sampling Method	Lutron - LX-101 Inst. Manual

LUX MONITORING RESULTS

Sr. No.	Location Name	In Lux (Day Time)	In Lux (Night Time)	Illumination Lux (As per Standard IS-3646 Part-II)
1.	Near Capstan Machine	320	270	200


Checked By:



- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one 15 days from the date of sampling.



Report No: - EE/ENV/2021/01/053

Date: 15/01/2021

ANALYSIS REPORT

(For the month of January - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/WW1
Address	Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch,	Location	ETP outlet
		Quantity	2 L
Sampling Done By	Earth Envirotech Team	Date of Sampling	09/01/2021
Analysis Starts on	09/01/2021	Sampling Method	APHA 1060
Analysis Completion On	15/01/2021	Sample Received Date	09/01/2021

WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
1.	pH	—	7.4	IS 3025 (P-11)
2.	Temperature	°C	24	APHA 2550 B
3.	Colour	Units	17	IS 3025 (P-4)
4.	Total Dissolved Solids	mg/l	1621	IS 3025 (P-16)
5.	Total Suspended Solids	mg/l	20.6	IS 3025 (P-17)
6.	Oil & Grease	mg/l	2.4	IS 3025 (P-39)
7.	Ammonical Nitrogen	mg/l	7.84	IS 3025 (P-34)
8.	Chemical Oxygen Demand	mg/l	51.38	IS 3025 (P-58)
9.	Biochemical Oxygen Demand (5 days at 20°C)	mg/l	8.4	APHA 5210
10.	Residual Chlorine	mg/l	Nil	IS 3025 (P-26)
11.	Percent Sodium	%	6.5	IS 3025 (P-45)

Amini
Checked By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2021/01/094

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January - 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/AA1
Address	Survey No. 169/p,	Location	Near Security Gate
	Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	IS 5182: Part - 5: 2014
Analysis Completion On	09/01/2021	Sample Received Date	06/01/2021

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS)	Reference Method
1.	Particulate Matter PM ₁₀	µg/m ³	79.45	100	IS 5182 Part 23 : 2017
2.	Particulate Matter PM _{2.5}	µg/m ³	32.21	60	CPCB manual Volume I
3.	Sulphur Dioxide (SO ₂)	µg/m ³	21.79	80	IS 5182 Part 2 : 2017
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	24.03	80	IS 5182 Part 6 : 2017

Checked By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No. : EE/ENV/2021/01/095

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	3IL/ST1
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L2-C-BS-11
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L2-C-BS-11	
1.	Oxygen (O ₂)	%	14.2	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	3.1	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	0	EPA method 10
4.	Stack Temperature (ST)	°C	152	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	24.15	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	5.2	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	6.4	IS 11255 (P-7)

Checked By:



- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No: - EE/EN/2021/011/096

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST2
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L2-C-B5-21
		Nature of Sample	Stack Monitoring Kir
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LAYS/EG/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L2-C-B5-21	
1.	Oxygen (O ₂)	%	14.1	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	4.5	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	0	EPA method 10
4.	Stack Temperature (ST)	°C	119	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	21.8	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	6.4	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	5.7	IS 11255 (P-7)

Checked By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports cannot be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No. - EE/ENV/2021/01/097

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/STB
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L2-C-BS-31
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L2-C-BS-31	
1.	Oxygen (O ₂)	%	13.9	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	4.1	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	0	EPA method 10
4.	Stack Temperature (ST)	°C	137	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	29.7	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	7.2	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	6.4	IS 11255 (P-7)

Checked By:



- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No. : E/ENV/2021/ 01 /038

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/S14
Address	Survey No. 167/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L2-C-B5-41
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L2-C-B5-41	
1.	Oxygen (O ₂)	%	14.8	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	6.4	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	2	EPA method 10
4.	Stack Temperature (ST)	°C	141	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	25.4	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	6.9	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	5.1	IS 11255 (P-7)

Checked By:



- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No. : EE/ENV/2021/01/099

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST5
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L2-C-B5
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L2-C-B5	
1.	Oxygen (O ₂)	%	13.7	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	5.8	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	1	EPA method 10
4.	Stack Temperature (ST)	°C	149	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	26.87	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	7.1	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	6.3	IS 11255 (P-7)

Checked By:

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No. - EE/EN/2021/D1/100

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST6
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L1-SD-B5-11
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LAIS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L1-SD-B5-11	
1.	Oxygen (O ₂)	%	14.2	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	6.7	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	3	EPA method 10
4.	Stack Temperature (ST)	°C	137	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	27.41	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	7.5	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	6.1	IS 11255 (P-7)

Checked By:

Authorized Signatory:

- Analysis is subject to the condition, in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No: - EE/EN/2021/01/101

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST7
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L1-SD-B5-21
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L1-SD-B5-21	
1.	Oxygen (O ₂)	%	14.2	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	5.4	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	11	EPA method 10
4.	Stack Temperature (ST)	°C	189	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	29.87	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	8.2	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	6.9	IS 11255 (P-7)

A. J.
Checked By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No.: EE/ENV/2021/01/102

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST8
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L1-SD-B5-31
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L1-SD-B5-31	
1.	Oxygen (O ₂)	%	13.9	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	6.12	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	9	EPA method 10
4.	Stack Temperature (ST)	°C	245	EPA method 3A
5.	Suspended Particulate matter	Mg/Nm ³	30.54	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	8.4	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	7.1	IS 11255 (P-7)

Checked By: 



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained 15 Days from the date of sampling.

Report No.: EE/ENV/2021/01/103

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST9
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L1-SD-B5-41
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L1-SD-B5-41	
1.	Oxygen (O ₂)	%	14.2	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	6.87	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	2	EPA method 10
4.	Stack Temperature (ST)	°C	289	EPA method 3A
5.	Suspended Particulate matter	mg/NM ³	30.45	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	8.5	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	7.2	IS 11255 (P-7)

Checked By:

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including Judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2021/01/104

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Bhironia Industries Ltd.	Sample Code	BIL/ST10
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L1-SD-BS
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L1-SD-BS	
1.	Oxygen (O ₂)	%	13.9	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	6.91	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	1	EPA method 10
4.	Stack Temperature (ST)	°C	268	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	30.41	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	7.2	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	6.7	IS 11255 (P-7)

Checked By:

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judicial purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No.: EE/ENV/2021/01/105

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST11
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L3-RB-BS-11
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LAIS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L3-RB-BS-11	
1.	Oxygen (O ₂)	%	14.23	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	7.12	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	89	EPA method 10
4.	Stack Temperature (ST)	°C	170	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	27.41	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	7.2	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	5.1	IS 11255 (P-7)

Checked By:

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2021/01/106

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST12
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L3-RB-BS-21
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L3-RB-BS-21	
1.	Oxygen (O ₂)	%	13.9	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	7.1	EPA method 3A
3.	Carbon Monoxide(CO)	ppm	283	EPA method 10
4.	Stack Temperature (ST)	°C	192	EPA method 3A
5.	Suspended Particulate matter	Mg/Nm ³	32.54	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	9.1	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	6.8	IS 11255 (P-7)

Checked By:



- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.



Report No. : EE/ENV/2021/01/107

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST13
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L3-RT-BS-11
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring IATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L3-RT-BS-11	
1.	Oxygen (O ₂)	%	13.41	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	6.21	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	0	EPA method 10
4.	Stack Temperature (ST)	°C	145	EPA method 3A
5.	Suspended Particulate matter	Mg/Nm ³	29.64	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	6.97	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	7.54	IS 11255 (P-7)

Checked By:

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judicial purpose without our prior permission.
- Sample will be retained 15 Days from the date of sampling.

Report No: - EE/ENV/2021/01/108

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd,	Sample Code	BIL/ST14
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L3-RT-BS-21
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L3-RT-BS-21	
1.	Oxygen (O ₂)	%	13.9	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	7.54	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	0	EPA method 10
4.	Stack Temperature (ST)	°C	167	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	30.74	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	8.2	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	6.9	IS 11255 (P-7)

Checked By:



- Analyses subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judicial purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No. : EE/ENV/2021/01/109

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST15
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L3-RT-BS-31
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L3-RT-BS-31	
1.	Oxygen (O ₂)	%	14.1	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	7.6	EPA method 3A
3.	Carbon Monoxide(CO)	ppm	0	EPA method 10
4.	Stack Temperature (ST)	°C	157	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	30.12	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	8.5	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	7.4	IS 11255 (P-7)

Checked By:

Authorized Signatory

- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2021/01/110

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/ST16
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	D.G set
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			D.G set	
1.	Oxygen (O ₂)	%	15.2	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	7.12	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	188	EPA method 10
4.	Stack Temperature (ST)	°C	71	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	90.47	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	15.48	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	9.12	IS 11255 (P-7)

Checked By:



- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained 10-15 Days from the date of sampling.



Report No.: EE/ENV/2021/01/111

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BII./ST17
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	Diesel Engine Pump
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LAIS/BO/2013-14
Analysis Completion On	09/01/2021	Sample Received Date	05/01/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			Diesel Engine Pump	
1.	Oxygen (O ₂)	%	14.8	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	7.45	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	268	EPA method 10
4.	Stack Temperature (ST)	°C	251	EPA method 3A
5.	Suspended Particulate matter	Mg/NM _s	71.65	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	11.94	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	10.3	IS 11255 (P-2)

Checked By:

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judicial purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - E/ENV/2021/01/12

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/N1-N4
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	As per table
		Quantity	NA
		Date of Measurement	05/01/2021
Sampling Done By	Earth Envirotech Team	Sampling Instrument	Sound Level Meter (HTC/SL-1350)
Measurement Completion Date	05/01/2021	Sampling Method	IS 9876 : 1981 & 9989 : 1981

NOISE MONITORING RESULTS

Sr. No.	Location Name	Units	Day Time	
			Observed Value	Standard Limit
1.	Near Admin Office	dB (A)	59.4	75.0
2.	Near Cream Area	dB (A)	69.7	75.0
3.	Near Cream Preparation Room	dB (A)	70.1	75.0
4.	Near Biscuit Outline Sugar Grinder	dB (A)	72.4	75.0
5.	Near D.G.Set Area	dB (A)	71.5	75.0

Checked By:

Authorized Signatory

- Analysis is subject to the condition in which the Sample is received at our Laboratory,
- Reports cannot be used as an evidence anywhere including judicialy purpase without our prior permission.
- Sample will be retained 31 one month from the date of sampling.

Report No. - EE/EN/2021/01/14

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/WW1
Address	Survey No. 169/p,	Location	ETP Outlet
	Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Quantity	5 L
Sampling Done By	Earth Envirotech team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	IS 3025 (P-1)
Analysis Completion On	11/01/2021	Sample Received Date	06/01/2021

WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	GPCB Limit.
1.	pH	—	7.2	6.5 – 8.5
2.	Temperature	°C	26	45°C
3.	Colour	Units	16	100
4.	Suspended Solids	mg/l	29.7	100
5.	Oil & Grease	mg/l	2.5	10
6.	Phenolic Compound	mg/l	871	01
7.	% Sodium	%	12.2	60
8.	Biochemical Oxygen Demand (5 days at 20°C)	mg/l	12.4	30
9.	Chemical Oxygen Demand	mg/l	66.67	100
10.	Chlorides	mg/l	319	600
11.	Sulphate as SO ₄	mg/l	37.4	1000
12.	Total Dissolved Solids	mg/l	680	2100

Checked By:

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judicial purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No: - EE/ENW/2021/01/114

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/DW1
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	Drinking Water
		Quantity	2 L
Sampling Done By	Earth Envirotech Team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	IS 3025 (P-1)
Analysis Completion On	11/01/2021	Sample Received Date	06/01/2021

DRINKING WATER ANALYSIS RESULTS

Sr. No.	Parameter	Unit	Result	Desirable Limit IS-10500-2012 Max. limit
1.	pH	--	6.96	6.5-8.5
2.	Odor	--	Odorless	Unobjectionable
3.	Color	Pt. Co.	Colorless	05
4.	Taste	-	Agreeable	Agreeable
5.	Turbidity	NTU	Nil	05
6.	TDS	Mg/l	384	500
7.	Total Hardness (as CaCO ₃)	Mg/l	51.43	300
8.	Chloride	Mg/l	147.2	250
9.	Iron	Mg/l	BDL	0.3
10.	Residual Free Chlorine	Mg/l	BDL	0.2
11.	Calcium (as Ca)	Mg/l	24.51	75
12.	Magnesium	Mg/l	6.54	30
13.	Copper	Mg/l	BDL	0.08
14.	Manganese	Mg/l	BDL	0.12
15.	Sulphate	Mg/l	59.7	200
16.	Fluoride	Mg/l	BDL	0.87
17.	Zinc	Mg/l	BDL	03
18.	Anionic Detergents	Mg/l	BDL	0.1



Report No: - EE/ENV/2021/01/114

Date: 30/01/2021

Sr. No.	Parameter	Unit	Result	Desirable Limit
19	Mineral Oil	Mg/l	BDL	0.01
20	Alkalinity	Mg/l	43.5	200
21	Aluminum	Mg/l	BDL	0.02
22	Boron	Mg/l	BDL	0.84
23	Barium	Mg/l	BDL	0.7
24	Silver	Mg/l	BDL	0.1
25	Selenium	Mg/l	BDL	0.01
26	Molybdenum	Mg/l	BDL	0.07
27	Sulphide	Mg/l	BDL	0.05
28	Ammonia	Mg/l	BDL	0.5
29	Chloramine	Mg/l	BDL	4.0
30	Phenolic Compound	Mg/l	BDL	0.001
31	Nitrate	Mg/l	BDL	46
32	Bacteriological Examination			
	(i) E.Coli Test	Per 100 ml	Absent	Absent

Note: ND: - Not Detected, BDL - Below Detectable Limit.


Checked By:


- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No. : EE/ENV/2021/01/116

Date: 30/01/2021

ANALYSIS REPORT

(For the Month of January- 2021)

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	BIL/WW2
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	STP Outlet
		Quantity	5 L
Sampling Done By	Earth Envirotech team	Date of Sampling	05/01/2021
Analysis Starts on	06/01/2021	Sampling Method	IS 3025 (P-1)
Analysis Completion On	11/01/2021	Sample Received Date	06/01/2021

WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	GPCB Limit
1.	pH	—	6.3	6.5 – 9.0
2.	Temperature	°C	26.1	45°C
3.	Colour	Units	18	100
4.	Suspended Solids	mg/l	31.5	50
5.	Oil & Grease	mg/l	4	10
6.	Ammonical Nitrogen	mg/l	8.95	100
7.	Biochemical Oxygen Demand (5 days at 20°C)	mg/l	10.8	20
8.	Chemical Oxygen Demand	mg/l	62.5	100
9.	Chlorides	Mg/l	219.51	600
10.	Total Dissolved Solids	mg/l	690	2100

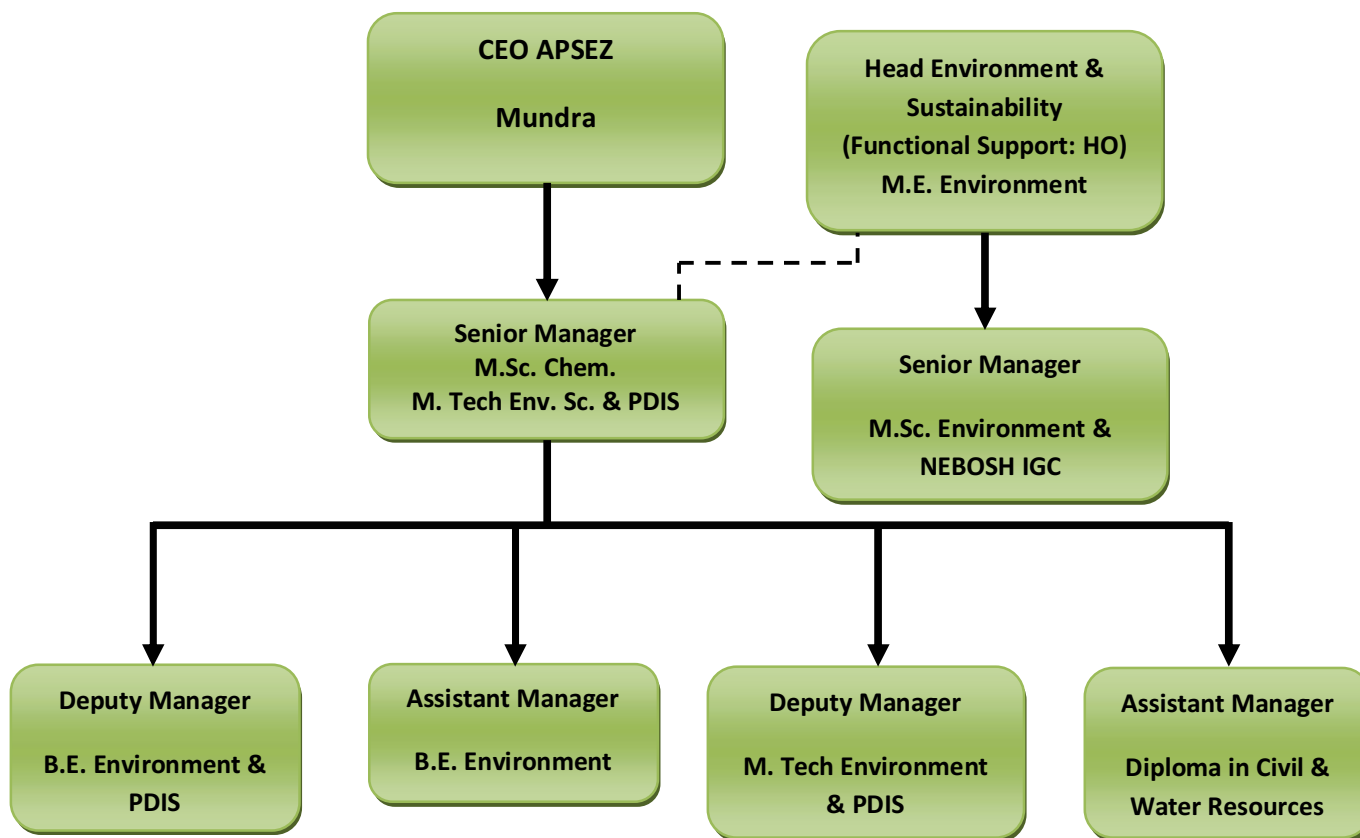

Checked By:

Authorized Signatory:

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Annexure – 9

Organogram of Environment Management Cell, APSEZ, Mundra



Annexure – 10

Cost of Environmental Protection Measures

Sr. No.	Activity	Cost incurred (INR in Lacs)			Budgeted Cost (INR in Lacs)
		20 18 – 19	20 19 – 20	2020 – 21	2020 – 21
1.	Environmental Study / Audit and Consultancy	6.7	0.33	6.2	51.0
2.	Legal & Statutory Expenses	4.42	0.84	10.58	11.0
3.	Environmental Monitoring Services	20.36	21.74	19.17	30.0
4.	Hazardous / Non Hazardous Waste Management & Disposal	95.72	108.43	83.55	119.8
5.	Environment Days Celebration and Advertisement / Business development	0.28	1.5	5.3	10.0
6.	Treatment and Disposal of Bio-Medical Waste	1.21	1.62	2.09	1.68
7.	Mangrove Plantation, Monitoring & Conservation	47.0	Nil	32.59	32.59
8.	Other Horticulture Expenses	579.32	734.18	689	733
9.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	144.29	110.18	148.49	160.08
10.	Expenditure of Environment Dept. (Apart from above head)	109.28	105.13	89.11	107.44
Total		1008.58	1083.95	1086.08	1256.59

Annexure – 11

**BMW AUTHORIZATION FORM-III(Rule 10)**

Gujarat Pollution Control Board
Paryavaran Bhavan, Sector-10/A,
Gandhinagar - 382010
Tele :23222756

Distromed Kutchh Services Pvt. Ltd. (373266)**Under the Rule-10 of the Biomedical waste (Management and Handling) Rules, 2016 framed under the EPACT'86**Authorization for operating a facility for **Generation,Segregation,Storage** of biomedical wastes.**BMW AUTH NO :BMW-333816, VALID UPTO : 01/06/2022****PCB Id : 21749****Application Inward No : 35914 , Date: 05/06/2017****BMW Id : 373266****CCA No: BAWH-87262 (01/06/2022)****File No : KUTCHH-INV-CF-361,**

No of Beds : 4,442, Investment(in lakh) : 70.00, Act : B,A,W,H
No of H.W : 3, Water Consumption(klpd) : 6.00, Scale : S

In exercise of power conferred by this Board and after scrutiny of above referred application, Superintendent /
 Incharge of **Distromed Kutchh Services Pvt. Ltd. at Survey No- 42/1/1,Kodki road, Ratia. , Ratia Tal :**

Bhuj Dist : Kutch West is here by granted an Authorisation to operate Health Care facility for
Generation,Segregation,Storage of biomedical wastes on the premises of

M/S. Self is a CBWTF Operator * * * * * situated at**-, Dist : -** Under**CBWTF Reg. No : NA, Valid Upto :**

M/S. Self is a CBWTF Operator * * * * *, **-, Dist : -** is hereby authorized for handling biomedical waste
 as per the capacity given below:

- (i) Number of beds of HCF : **4,442**
- (ii) Number of healthcare facilities covered by CBWTF : **308**
- (iii) Installed Treatment and Disposal capacity : **3,000.00 KG/DAY**
- (iv) Area or Distance Covered by CBWTF : **150.00**
- (v) Qty of Biomedical waste handled, treated or disposed : **550.00**

1.The Authorisation is granted for **4,442** nos. of beds with generation of

Type of Waste Category (Kgs/Month)	YELLOW	WHITE (Translucent)	RED	BLUE
Qty permitted for Handling	18,000.00	1,500.00	3,500.00	6,000.00

category of biomedical wastes. **(Unit - Kgs/Month)**2.This BMW Authorisation shall be in force **for a period of (5 year, Valid Upto 01/06/2022)**This CCA Authorisation shall be in force **for a period of 5 year[up to 01/06/2022]**

3.This Authorisation is subject to the conditions stated in the Annexure-I attached here with and to such other conditions as
 may be specified in the Rules for the time being in force under the Environment (Protection) Act 1986.

**BMW AUTHORIZATION FORM-III(Rule 10)**

Gujarat Pollution Control Board
Paryavaran Bhavan, Sector-10/A,
Gandhinagar - 382010
Tele :23222756

Distromed Kutchh Services Pvt. Ltd. (373266)

Under the Rule-10 of the Biomedical waste (Management and Handling) Rules, 2016 framed under the EPACT'86

4. The authorization shall comply with the provisions of the Environment (Protection) Act, 1986 and the rules made there under.
5. The authorization or its renewal shall be produced for inspection at the request of an officer authorised by the prescribed authority.
6. The person authorised shall not rent, lend, sell, transfer or otherwise transport the biomedical waste without obtaining prior permission of the prescribed authority.
7. Any unauthorised changes in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
8. It is the duty of the authorised person to take prior permission of the prescribed authority to close down the facility and such other terms and conditions may be stipulated by the prescribed authority.



e-Signed On 20/07/2017 15:52:09
(Organic Authentication on AADHAR from UIDAI Server)
TPAV # CVUG6MJS3X

For & On behalf of
Gujarat Pollution Control Board

K.C.Mistry, Unit Head

Remark:
Specific Condition :

Encl.: Annexure-I

Issued to , Mrs. Vinod L. kachhadia, Distromed Kutchh Services Pvt. Ltd., Survey No- 42/1/1, Kodki road, Ratia. , Ratia Tal :Bhuj Dist :Kutch West (BMW Id: 373266)

Copy to Regional Office - Kutch West/ H.O

With a request to carry out periodically monitoring of above said hospital/clinic and submit the visit report to this Office.



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

NO: GPCB/ID-17221/CCA/JNG-24(19)

RPAD

In exercise of the power conferred under section-25 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 and other Wastes (Management and Trans boundary movement) Rules, 2016 framed under the Environmental (Protection) Act-1986.

And whereas Board has received consolidated consent application No.139359 dated: 02/07/2018 for the Consolidated Consent and Authorization (CC & A) of this Board under the provisions/rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:

(Under the provisions /rules of the aforesaid environmental acts)

To,
M/S. AMBUJA CEMENTS LTD,
SURVEY NO: 315 to 320, 351 to 352, 395 to 410,
P.O: AMBUJANAGAR-362715,
TAL: KODINAR,
DIST: GIR SOMNATH.

1. Consent Order No. : AWH-97567 date of issue: 05/12/2018

1.1 The consents shall be valid up to 18/09/2023 for use of outlet for the discharge of trade effluent & emission due to operation of industrial plant for manufacture of the following items/products:

Sr.No	Product	Capacity
1	Cement	1.5 Million TPA
2	Receiving, Common Storage, Handling & Processing facility for co-processing of Hazardous & Non-Hazardous Waste to be used at: 1. Ambuja Cement Unit (ID 17221) and 2. Gajambuja Unit (ID 17221)	1,50,000 TPA

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2. **CONDITIONS UNDER THE WATER ACT:**

2.1 The water consumption and waste water generation shall be as under.

	Water Consumption	Waste water generation
Industrial	250 KL/Day	Nil
Domestic	1550 KL/Day	1400 KL/Day

2.2 The quantity of sewage from the factory and from township shall not exceed 1400 KL/day.

2.3 Sewage shall be treated at Sewage Treatment Plant to conform to the following standards.

SR No	Parameters	Permissible Limit
1	pH	6.5-9.0
2	BOD (mg/l)	30
3	Total Suspended Solids (mg/l)	Less than 100
4	Fecal Coliform (FC) (MPN/100 ml)	Less than 1000

2.4 Treated water from Sewage Treatment Plant shall be utilized for following purpose.

- Plant cooling for Ambuja & Gajambuja plant
- Dust suppression on haul roads
- Horticulture and green belt development
- On land for irrigation
- Fire fighting purpose

3. **CONDITIONS UNDER THE AIR ACT:**

3.1 The following shall be used as fuel.

Sr No.	Fuel	Quantity
1	Coal/lignite/Pet coke or in combination with Alternate fuel (Non hazardous waste i.e. bio fuel/biomass/agro waste/RDF & SCF from MSW/plastic waste/type chips etc)	55 Ton/hr (Inclusive of Maximum 10 Ton/hr alternate fuel)

3.2 In any case, quantity of fuel shall not exceed 55 tons/Hr.

3.3 The quantity of imported pet coke shall as follows.

Source of petcoke	Quantity
Imported Petcoke (However, the overall Consumption of Coal/Petcoke i.e. imported Petcoke including indigenous Petcoke/Indigenous Coal/Imported Coal will not exceed 15500 MT/Month/165000 MT/Annum)	15500 MT/Month (186000 MT/Annum)

3.4 You shall have to comply all the conditions of Office Memorandum for Guidelines for Regulation and Monitoring of Imported Petcoke in India issued vide Letter dated 10th Sept 2018 by MoEFCC.

3.5 Imported Petcoke shall be used as feedstock and in any petcoke used by unit the sulphur content shall not be more than 7% in Petcoke.



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- 3.6 HSD shall be used as a secondary fuel start-up of kiln.
- 3.7 Any other non hazardous & high calorific value material shall be used as alternative fuel of co-processing in cement kiln.
- 3.8 The applicant shall install & operate air pollution control system in order to achieve norms prescribed below
- 3.9 The flue gas emission through stack shall conform to the following standards:

Stack No.	Stack attached to	Stack height in Meter	Air Pollution Control system	Parameter	Permissible Limit
1	Raw Mill Kiln Exit	95	Glass Bag House & Selective Non - Catalytic Reduction (SNCR) System For NOx Reduction	Particulate Matter SO2 NOx HCL HF TOC Hg and its compounds Cd+Pb and Their compounds Sb+As+Pb+Co+Cr+V+Cu+Mn+Ni+V And their compounds Dioxins and Furans	30 mg/Nm ³ 100 mg/Nm ³ 800 mg/Nm ³ 10 mg/Nm ³ 1 mg/Nm ³ 10 mg/Nm ³ 0.05 mg/Nm ³ 0.05 mg/Nm ³ 0.5 mg/Nm ³ 0.1 ng TEC/Nm ³
2	Clinker Cooler	35	ESP	Particulate Matter	30 mg/Nm ³
3	Coal Mill	63	Bag Filter		
4	Cement Mill-I	34	Bag Filter		
5	Cement Mill-II	34	Bag Filter		

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6	Packing Plant-I	30	Bag Filter
7	Packing Plant-II	30	Bag Filter
8	Crusher	20	Bag Filter

Note:

- A) The monitored values of SO₂, NO_x, HCl, HF, TOC, Metals and Dioxins and Furans at main kiln stack shall be corrected to 10% Oxygen, on dry basis and the Norms for SO₂, NO_x, HCl, HF, TOC, Metals and Dioxins and Furans shall be applicable to main kiln stack and the norms for Particulate Matter (PM) shall be applicable to all the stacks in the plant.
- B) PM, SO₂, NO_x shall be monitored continuously. HCl, HF, TC, Metals and Dioxins and Furans shall be monitored once in a year.
- C) Scrubber meant for scrubbing emission shall not be used as quencher and plants having separate stack for gaseous emission for the scrubbing unit, the height of this stack shall be at least equal to the main stack.

3.10 There shall be no process gas emission

3.11 The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder.

PARAMETERS	PERMISSIBLE LIMIT	
	Annual	24 Hrs Average
Particulate Matter-10 (PM ₁₀)	60 Microgram/M ³	100 Microgram/M ³
Particulate Matter-2.5 (PM _{2.5})	40 Microgram/M ³	60 Microgram/M ³
SO ₂	50 Microgram/M ³	80 Microgram/M ³
NO _x	40 Microgram/M ³	80 Microgram/M ³

3.12 The applicant shall install & operate air pollution control equipment Very efficiently and continuously so that the gaseous emission always conforms to the standards specified in Condition no.3.3 & 3.5 above.

3.13 The consent to operate the industrial plant shall lapse if at any time the parameters of the gaseous emission are not Within the tolerance limits specified in the condition no.3.3 & 3.5 above.

3.14 The applicant shall provide percholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

3.15 The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and 70 Db (A) during night time. Daytime is reckoned in between 6a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.



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4. GENERAL CONDITIONS: -

- 4.1 Any change in personnel, equipment or working conditions as mentioned in the consent form/order should immediately be intimated to this Board.
- 4.2 Applicant shall also comply with the general conditions given in annexure-I
- 4.3 Whenever due to accident or other unforeseen act or event, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, Concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.
- 4.4 In order to enable the board to perform its functions of ascertaining the standards of effluent laid down by it for the discharge of the effluent under the condition no 2.3 of this order are complied with by the company while causing discharge of effluent, the applicant shall have to submit every month the analysis report of the samples of effluent got collected and analyzed by one of the laboratories recognized by the state Board.
- 4.5 The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of
- 4.6 The applicant shall also comply with the General Conditions as per Annexure - I enclosed.
- 4.7 The Board reserves the right to review and/or revoke the consent and/or make variations in the conditions, which the Board deems fit in accordance with Section 27 of the Act.
- 4.8 In case of change of ownership/management the name and address of the new owners/partners/directors/proprietor should immediately be intimated to the Board.
5. **HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016 Form -2(See Rule 6(2))**
- 5.1 Form # 1 grant of authorization for occupier or operator handling hazardous waste.
- 5.2 M/s. AMBUJA CEMENTS LTD is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at SURVEY NO: 315 to 320, 351 to 352, 395 to 410, P.O: AMBUJANAGAR - 362715, TAL: KODINAR, DIST: GIR SOMNATH.

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Sr. No	Type of waste	Quantity In MT/Annum	Schedules	Facility
1.	Tarry residue and still bottoms from distillation	150000	1.2	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
2.	Oil sludge and Emulsion	150000	4.1	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
3	Spent catalyst	150000	4.2	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
4	Organic residue from process	150000	4.4	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
5	Spent clay containing oil	150000	4.5	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
6	Used/Spent oil	93.50	5.1	Collection, Storage, Transportation, Disposal By Sale To Registered Recycler
7	Waste or residue containing oil	150000	5.2	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
8	Cathode residue including pot lining waste	150000	11.2	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
9	Phosphate sludge	150000	12.5	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
10	Plating metal sludge	150000	12.8	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
11	Sludge from acid recovery unit	150000	13.2	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln



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12	Distillation residue generating from production and for industrial use of solvents	150000	20.3	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
13	Process waste, residue and sludge	150000	21.1	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
14	Process residues	150000	22.2	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
15	Waste or residues (not made with vegetable or animal materials)	150000	23.1	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
16	Process waste sludge/residue containing acid, toxic metal, organic compounds (i.e. Chemical gypsum)	237250	26.1	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
17	Dust from air filtration system	150000	26.2	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
18	Spent solvent	150000	26.4	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
19	Spent catalyst	150000	26.5	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln

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20	Process residue and wastes	150000	28.1	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
21	Spent catalyst	150000	28.2	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln (As per List attached in Annexure 1)
22	Spent carbon	150000	28.3	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln (As per List attached in Annexure 2)
23	Off specification products	150000	28.4	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
24	Date expired products	150000	28.5	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
25	Spent solvent	150000	28.6	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
26	Process waste or residues	150000	29.1	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
27	Sludge containing residual pesticides	150000	29.2	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
28	Empty barrels/containers/liners contaminated with hazardous chemicals/waste (Only From Paint Industry Sector)	150000	33.1	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
29	Chemicals-containing residue arising from decontamination	150000	34.1	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln
30	Exhaust air or gas cleaning residue	150000	35.1	Collections, Reception, Recovery, Storage, Transportation By Co-Processing In Cement Kiln



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- 5.7 The industry should take necessary steps for prevention of any spillages / Leaching etc. in respect of Hazardous waste from the premises.
- 5.8 Cement plant shall have to explore the possibilities for transportation of Hazardous waste for the co-processing purpose through dedicated tankers with GPS enabled system in line with Hazardous Waste Rules -2016
- 5.9 The industry shall use Hazardous Waste tracking (HWT) system of XGN for online real time data for preparing online manifest system for regular updating for retrieval and maintain record thereof and to furnish details to the concerned GPCB, Regional Office & Head Office, Gandhinagar at regular interval.
- 5.10 The industry should maintain good housekeeping & maintain proper records of Hazardous Waste mentioned in Authorization.
- 5.11 The industry should submit the point wise compliance report on half yearly basis and monthly report in prescribed format annexed here with as (Annexure-A) to the Hazardous Waste Cell at Head Office Gandhinagar.
- 5.12 The industry should obtain prior regular permission of GPCB for co-processing of Hazardous wastes in cement kiln (if applicable) .
- 5.13 The industry should take all precautionary measure to prevent odour, nuisance and spillage during the storage and handling of Hazardous Waste.
- 5.14 The industry should obtain prior permission of trial run for co-processing of wastes for which regular permission is not issued to any cement plant.
- 5.15 The industry should follow the guideline of GPCB for labeling transportation, storage and disposal of hazardous wastes in a environmental sound manner.
- 5.16 The authorization is granted to operate a facility for collection, storage, transportation and ultimate disposal of Hazardous wastes as above.
- 5.17 The authorization shall be in force for a period up to 18/03/2023.
- 5.18 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.
- 5.19 It shall be the responsibility / duty of the applicant to take adequate steps while handling hazardous wastes to contain contaminants and prevent accident and their consequences on human and environment and prevent person working on the site with information, training and equipment and necessary to ensure their safety.
- 5.20 The applicant shall be liable for all damage caused to the environment or their party due to improper handling of Hazardous Wastes or Disposal of hazardous wastes.
- 5.21 The applicant shall be liable to pay financial penalties as levied for any violation of the provisions under Hazardous and other wastes (management and transboundary movement) rules, 2016 by the State Pollution Control Board with the prior approval of the Central Pollution Control Board.

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5.22 The applicant shall ensure that the Hazardous wastes are packaged and labeled, based on the composition in a manner suitable for safe handling, storage and transport. The labeling and packaging shall be easily visible and to be able to with stand physical conditions and climatic factors as per guidelines issued by the Central Pollution Control Board from time to time. The transport of hazardous wastes shall be in accordance with the provisions of the rules made by Central Government under the Motor Vehicles Act, 1988 & other guidelines issued from time to time and the transporter shall comply with the provisions of Hazardous and other wastes (management and transboundary movement) rules, 2016.

5.23 In case of transportation of Hazardous Wastes through a state other than the state of origin or destination the occupier shall intimate the concerned State Pollution Control board before, he hands over the Hazardous Waste to the transporter (if applicable).

e. TERMS AND CONDITIONS OF AUTHORISATION

- a) The applicant shall comply with the provisions of the Environment (Protection) Act - 1986 and the rules made there under.
- b) The authorization shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board. The persons authorized shall not rent, lend, sell, and transfer of otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
- c) Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a breach of this authorization.
- d) It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
- e) An application for the renewal of an authorization shall be made as laid down in rule 5 (6) (ii).
- f) Industry shall have to manage waste oil, discarded containers etc as per Amended Rules-2003 and shall apply Authorization/submitt details for all applicable waste as per Amended Rules-2003 with 15 days.
- g) Industry shall submit annual report within 15 days and sub equinty by 30th June every year.

7. General Conditions:

- 7.1 The waste generator shall be totally responsible for (i.e. collection, storage, encapsulation, incineration, treatment, transportation and ultimate disposal) of the wastes generated.
- 7.2 Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form - 4 by 31st January of every year.
- 7.3 In case of any accident, details of the same shall be submitted in Form - 5 to Gujarat Pollution Control Board.
- 7.4 As per "Public Liability Insurance Act - 91" company shall get insurance Policy, if applicable.



GUJARAT POLLUTION CONTROL BOARD

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Sector-10-A, Gandhinagar 382 010

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In exercise of the power conferred under section-25 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(b) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016 & as amended from time to time framed under the Environment (Protection) Act-1986.

And whereas Board has received consolidated consent application Inward J.D.NO. 144910 dated 05/10/2018 for the amendment in Consolidated Consent and Authorization (CC & A) of this Board and under the provisions/rules of the aforesaid acts. Consents & Authorization are hereby granted as under

CONSENTS AND AUTHORIZATION:

(Under the provisions /rules of the aforesaid environmental acts)

To,

M/s Saurashtra Enviro Projects Pvt Ltd,

Plot no./Survey no. 386/1, 409/1, 414/1, 415 & 417

Vill: Juna Katarliya/Lakudiya,

Tal: Bhachau,

DIST: KUTCH-370 150

1. Consent Order No: AWH - 97731, Date of Issue 13/12/2018.

The consents shall be valid up to 05/11/2023 for use of outlet for the discharge of trade effluent and emission due to operation of industrial plant for following activities at Plot no./Survey no. 386/1, 409/1, 414/1, 415 & 417, Vill: Juna Katarliya/Lakudiya, Tal: Bhachau, Dist: Kutch, East- 370150.

SR. NO.	PRODUCTS	Capacity	Survey No
1	Secured Landfill Site	8,45,000 MT (Cell no.1 - 1,25,000MT, Cell no.2 - 2,75,000 MT, Cell no.3 - 4,50,000 MT) Closed & Capped	386/1, 409/1, 414/1, 415 & 417 Vill: Juna Katarliya/Lakudiya, Tal: Bhachau, Dist: Kutch, East- 370150.
2.	Incineration Facility	7.50 Million Kcal/Hour	

2. SPECIFIC CONDITION

- SEPL shall send generated leachate to M/s ACPCL for further treatment; unit shall maintain & submit monthly record.
- SEPL shall comply the submitted notarized undertaking dated 31/03/2018.
- In case of issue related to groundwater contamination or any other damage to environment in future, there shall be a joint responsibility and liability of both Saurashtra Enviro Projects Pvt. Ltd., and Ankleshwar Cleaner Process Technology Centre Pvt. Ltd., for conducting assessment study and remediation as per CPCB guidelines.
- Saurashtra Enviro Projects Pvt. Ltd shall bound to comply all the condition of ICYTE for the facilities as per business transfer agreement.
- Saurashtra Enviro Projects Pvt. Ltd will maintain their independent Escrow Accounts as per the guidelines.
- The Board shall not take any responsibility for legal/Civil dispute between Saurashtra Enviro Projects Pvt. Ltd and Ankleshwar Cleaner Process Technology Centre Pvt. Ltd.
- As Saurashtra Enviro Projects Pvt. Ltd. and Ankleshwar Cleaner Process Technology Centre Pvt. Ltd. have continuous premises, they shall provide fencing and demarcation of boundaries and shall have different identity.
- As all cells are closed of Saurashtra Enviro Projects Pvt. Ltd, No new waste shall be collected for TSD disposal.

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GUJARAT POLLUTION CONTROL BOARD

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Sector-10-A, Gandhinagar 382 010

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BY RPAD

No: GPCB/HAZ-GEN-680(1)/ID: 65572/

Date:

Amendment to Consolidated Consent Order No.AWH-97750 issued dated 14/12/2018

To,

M/s. Detox India Private Limited,

(Old Name: M/s. Ankleshwar Cleaner Process Technology Centre Pvt Ltd.)

Plot No: 383, 384, 386 P-2, 401, 409/2, 410, 411,

412/1, 412/2, 414 P-2, 416, 418, 178, 179,

Vill: Juna Katoriya, Lakadiya- 370150,

Tal: Bhachau & Dist: Kutch

SUB: - Consolidated Consent and Authorization (CC&A) under various Environment Acts / Rules.

REF: - (1) CCA Order No. GPCB/HAZ-GEN-680/ID-65572/480066 dated: 28/12/2018.

(2) Your letter dated: 02/01/2019 regarding change of name of the industry.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution) Act-1981 and Authorization under rule 6(2) of the Hazardous and other waste (Management and Transboundary Movement) Rules'2016, framed under the EP Act-1986 and without reducing your responsibility under the said acts / Rules in any way, this Board is empowered to amend consent order in connection with above reference the CCA order No.AWH-97750 issued under the provisions of the various Environment Acts/ Rules, which stands amended as under.

The consents shall be valid up to dated: 04/10/2023 for operation of common hazardous waste TSDU, Forced Evaporation and pre-processing facility for disposal of hazardous waste received from member units at Plot No: 383, 384, 386 P-2, 401, 409/2, 410, 411, 412/1, 412/2, 414 P-2, 416, 418, 178, 179 of Vill: Juna Katoriya, Lakadiya- 370150, Tal: Bhachau & Dist: Kutch.

1. The Board has issued CCA-Fresh valid up to dated: 04/10/2023 vide letter no GPCB/ HAZ-GEN-680/ID-65572/480066 dated: 28/12/2018. M/s. Ankleshwar Cleaner Process Technology Centre Pvt Ltd stands transferred to M/s. Detox India Private Limited, with condition that M/s. Detox India Private Limited, shall bound to comply with all the conditions subject to which it was granted to this industry originally.
2. The other condition of the CC&A order no: AWH-97750 issued vide letter No: GPCB/ HAZ-GEN-680/ID-65572/480066 dated: 28/12/2018 shall remain unchanged.
3. You are directed to comply with these conditions judiciously.

For and on behalf of GPCB

D.M. Thaker
9/11/19

(D.M. Thaker)

Environmental Engineer

Unit head, Haz Waste Cell

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And whereas Board has received consolidated consent application Inward I.D.NO. 144207 dated 05/10/2018 for the amendment in Consolidated Consent and Authorization (CC & A) of this Board and under the provisions/rules of the aforesaid acts, Consents & Authorization are hereby granted as under

CONSENTS AND AUTHORISATION:

(Under the provisions/rules of the aforesaid environmental acts)

To,

M/s Ankleshwar Cleaner Process Technology Centre Pvt Ltd,

Plot no/Survey no. 383,384,386P2,401,409/2,410,411,412/1,412/2,414 P2,416,418,178 & 179

Vill: Juna Katariya/Lakadiya,

Tal: Bhachau,

Dist: Kutch, East-370 150

1. Consent Order No: AWH – 97750, Date of Issue 14/12/2018.

The consents shall be valid up to 04/10/2023 for use of outlet for the discharge of trade effluent and emission due to operation of industrial plant for following activities at Plot no/Survey no. 383,384,386P2,401,409/2,410,411,412/1,412/2,414P2,416,418,178&179, Vill:Juna Katariya/Lakadiya, Tal: Bhachau, Dist: Kutch,East-370150.

Sr. No	Facility	Capacity	Survey No.
1.	Secured Landfill Site	Cell No.4: 3,55,000MT(In operation)	Plot no/Survey no. 383,384,386P2,401,409/2,410,411,412/1,412/2,414P2,416,418,178 & 179 Vill:Juna Katariya/Lakadiya, Tal: Bhachau, Dist: Kutch,East-370 150
2.	Forced Evaporation System	500KL/Day	
3.	Coal Crusher	10MT	
4.	Pre-Processing facility	120MT/Day	
5.	Ammonical Nitrogen stabilization plant	300KL/Day	
6.	VOC Stripper	150KL/Day	

2. SPECIFIC CONDITION

- 2.1 ACPTCL shall comply the submitted notarized undertaking dated 31/03/2018
- 2.2 In case of issue related to groundwater contamination or any other damage to environment in future, there shall be a joint responsibility and liability of both Saurashtra Enviro Projects Pvt. Ltd., and Ankleshwar Cleaner Process Technology Centre Pvt Ltd., for conducting assessment study and remediation as per CPCB guidelines.
- 2.3 In all circumstances, VOCs and high ammonical nitrogen containing stream shall be evaporated in spray dried.
- 2.4 Unit shall strictly adhere and comply with guidelines issued by the Central Pollution Control Board for Odour control.

Page 1 of 7

Clean Gujarat Green Gujarat

ISO-9001-2008 & ISO-14001 – 2004 Certified Organisation



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

By R.P.A.D.

In exercise of the power conferred under section-25 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, framed under the Environmental (Protection) Act-1986. The board has granted the consent order no. PC/CCA-KUTCH-519/GPCB ID 11946/141682 Date 26/03/2013.

And whereas Board has received application inward No. **130423** dated 06/12/2017 for the **Renewal Consolidated Consent and Authorization (CC&A)** of this Board under the provisions / rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:

(Under the provisions /rules of the aforesaid environmental acts)

To,
✓ Sabnam Enterprise,
Plot No. 87,
GIDC Anjar,
Dist : Kutch 370 110

1. Consent Order No. AWH-91299 Date of Issue: 16/02/2018
2. The consent shall be valid up to 05/12/2022 for manufacture of the following products.

SR. NO.	PRODUCT	QUANTITY
1.	Lead Ingots from used Lead Acid batteries	75 MT/MONTH

SUBJECT TO THE FOLLOWING SPECIFIC CONDITIONS:

- 2.1 You shall not carry out any activity which may attract the provision of EIA notification-2006.
- 2.2 You shall submit blood lead reports of workers within one-month time period.
- 2.3 Ground water shall not be used for any industrial purpose.

3. CONDITIONS UNDER THE WATER ACT 1974:

- 3.1 The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall be NIL.
- 3.2 The quantity of Sewage effluent from the factory shall not exceed 0.250 KL/Day.
- 3.3 Domestic effluent shall be disposed off through septic tank / soak pit system.
- 3.4 The quality of industrial waste water shall conform to the following standards.

PARAMETER	PERMISSIBLE LIMIT
pH	6.5 to 8.5
Temperature	40°C

Handwritten signature

Clean Gujarat Green Gujarat
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Colour (Pt. Co. scale units)	100 units
Total suspended Solids	100 mg/L
Oil & Grease	10 mg/L
Ammoniacal Nitrogen	50 mg/L
BOD (5 Days at 20 °C)	30 mg/L
COD	150 mg/L
Chlorides	600 mg/L
Sulphates	1000 mg/L
Total Dissolved Solids	250 mg/L
Percent Solids	60
Phenol (un-ionized)	0.1 mg/L
Lead	0.1 mg/L
Copper	0.2 mg/L
Total Chromium	0.2 mg/L
Hexavalent Chromium	0.1 mg/L

7. The treated effluent conforming to the above standards shall be reused in activities on the premises shall not be waste water discharge.
8. Domestic effluent shall be disposed off through septic tank.

4. CONDITIONS UNDER AIR ACT 1981.

- 4.1 The following shall be used as fuel in the furnace as following rates:

Sr. no.	Name of Fuel	Quantity
1	Charcoal	4.7 kg/hr

- 4.2 The applicant shall install & operate air pollution control system in order to achieve the gas emission norms as prescribed below:

Sr no	Stack attached to	Stack height in Meters	Air Pollution Control System	Parameter	Permissible limit
1	Furnace Number 1	15	Bag Filter and multi cyclone separator followed by water scrubber	PM SO ₂ NO _x	150 µg/M ³ 10 ppm 50 ppm

- 4.3 There shall be no unmet gas emission from the manufacturing and other ancillary activities.
- 4.4 The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder as per National Ambient Air Quality Standards issued by Ministry of Environment and Forest dated 16 November 2009:

Sr No	Pollutant	Time Weighted Average	Concentration in Ambient air in µg/M ³
1	Sulphur Dioxide (SO ₂)	Annual 24 Hours	50 60
2	Nitrogen Dioxide (NO ₂)	Annual 24 Hours	40 50
3	Particulate Matter (Size less than 10 µm OR PM ₁₀)	Annual 24 Hours	70 100
4	Particulate Matter (Size less than 2.5 µm OR PM _{2.5})	Annual 24 Hours	40 60

Amkhye

4.5 The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted / displayed to facilitate identification.

4.6 The concentration of Noise in ambient air within the premises of industrial unit shall not exceed following levels

Between 6 A.M. to 10 P.M. 75 dB (A)

Between 10 P.M. to 6 A.M. 70 dB (A)

5. Authorization under Hazardous and Other Waste [Management & Transboundary Movement] Rules, 2016 & amended.

6. Authorization Number: AWH- 90274 and shall valid up to 26/11/2022.

6.1 Sabnam Enterprise is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at Plot No 87, GIDC Anjar, Dist. Kutch 370 110

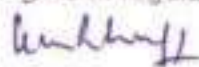
Sr. No.	Waste	Quantity per Annum	Category	Facility
1	Used lead Acid batteries	150 T/ Month	Schedule-IV (No 17)	Reception, Storage, Transportation & Reuse for recovery of Lead Ingots
2	Lead bearing residue	10 MT	I-9.1	Collection, storage, transportation and disposal at TSDF.
3	Discarded drums/ liners contaminated with hazardous chemicals waste and container	10 MT	I-33.3	Collection, Storage, decontamination, transportation and Disposal OR Collection, Storage, Transportation and selling to authorized decontamination facility

6.2 The authorization is granted to operate a facility for reception, collection, storage and transportation and ultimate disposal of Hazardous wastes by selling out to authorized decontamination facility, TSDF.

6.3 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986

6.4 **GENERAL CONDITIONS OF AUTHORIZATION:**

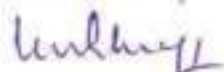
1. The authorized person shall comply with the provisions of the Environment (Protection) Act 1986, and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.



6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"
7. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
12. An application for the renewal of an authorization shall be made as laid down under these Rules.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

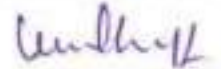
7. GENERAL CONDITION:

- 7.1 Unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within premises, the unit shall tie up with local agencies like gram panchayat, school, social forestry office etc. for the plantation at suitable open land in nearby locality and submit an action plan of plantation for next three years to GPCB.
- 7.2 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 10 meters width is developed.
- 7.3 In case of change of ownership/management the name and address of the new owners/partners/directors/proprietor should immediately be intimated to the Board.
- 7.4 The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gaseous emission or sewage waste from the proposed industrial plant. The applicant is required to make applications to this Board for this purpose in the prescribed forms under the provisions of the Water (Prevention and Control of Pollution) Act-1974, the Air (Prevention and Control of Pollution) Act-1981 and the Environment (Protection) Act-1986.
- 7.5 The overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering control like acoustic insulation hoods, silencers, enclosures etc on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under the Environment (Protection) Act, 1986 & Rules.
- 7.6 Applicant is required to comply with the manufacturing, Storage and Import of Hazardous Chemicals Rules-1989 framed under the Environment (Protection) Act-1986.
- 7.7 If it is established by any competent authority that the damage is caused due to their industrial activities to any person or his property in that case they are obliged to pay the compensation as determined by the competent authority.



- 7.8 Applicant shall have to comply with all the guidelines / Directive issued / being issued by MoEF&CC / CPCB / DoEF from time to time.
- 7.9 Applicant shall not use/withdraw ground water either during construction and /or operation phase.
- 7.10 Environmental cell shall be setup and shall be responsible for the total Environmental management.
- 7.11 Monitoring in respect to Air, Water, Noise level shall be carried out and results shall be submitted to GPCB on quarterly basis.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD



(P. J. Vachhani)

Senior Environment Engineer

NO: PC/ CCA- KUTCH- 513 /GPCB ID – 11946/ 447285

Date: 12/31/18

ISSUED TO:
Sabnam Enterprise,
Plot No. 87,
GIDC Anjar,
Dist : Kutch 370 110



Regional Office – Kutch (East)
Gujarat Pollution Control Board
Room No. 215-216-217, 2nd Floor,
Kandla Port Trust Administrative Building,
Gandhidham – 370201, Kutch.
Email:- ro-gpcb-kute@gujarat.gov.in

In exercise of the power conferred under section-25 of the Waster (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution) Act-1981 and Authorization under rule 6(2) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 framed under the E (P) Act-1986.

And whereas Board has received consolidated application no: 176383, dated 28/06/2020 for the fresh consolidated consent and authorization (CC & A) of this Board under the provision / rules of the aforesaid acts-rules. Consent & Authorization is hereby granted as under.

CONSOLIDATED CONSENT AND AUTHORISATION:

(Under the provision / rules of the aforesaid environmental acts)

To,
Aviation Corporation (PCB ID –63724),
PLOT NO: S. No. 67/2/P1,
Shikarpur- 370150
TAL: Bhachau, DIST: Kutch.

1. Consent Order No: AWH -43501; Date of Issue: 21/10/2020.

2. The consent shall be valid up to 27/06/2025 for the use of outlet for the discharge of trade effluent and emission due to operation of industrial plant for manufacture of following items/products at an above-mentioned address.

Sr No	Product	Quantity
1	Used Oil/ Waste Oil Reprocessing	300 MT/Month (Used Oil- 150 MT/Month & Waste Oil- 150 MT/Month)
2	Sodium Silicate	1500 MT/Month

Specific Condition
<div>1. No ground water shall be withdrawn without prior approval from competent authority.</div> <div>2. You shall not carry out any activity which may attract the applicability of EIA notification-2006 and its amendments.</div> <div>3. Management of Solid Waste generated from industrial activities shall be as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).</div> <div>4. As per provision of Rule-18 of Solid Waste Management Rules-2016 all industrial units using fuel and located within 100 km from the refused derived fuel (ROF) plant shall made an arrangement to replace at least five percent of their fuel requirement by refused derived fuel so produced.</div> <div>5. Industry shall manage Solid Waste generated from industrial activities as per Solid Waste Management Rules- 2016 (Solid Waste as defined in Rule- 3(46)).</div> <div>6. Industry shall comply with Plastic Waste Management Rules- 2018 & amended therefore. (if applicable)</div> <div>7. You shall have to comply with Coal Handling guideline.</div>



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8. You shall have to comply with Fly Ash Notification- 1999 and its amendments.																																						
3	Condition under the Water Act																																					
3.1	Source of Water: Tankers																																					
3.2	The quantity of industrial water consumption shall not exceed 07 KL/Day.																																					
3.3	The quantity of Domestic water consumption shall not exceed 02 KL/Day.																																					
3.4	The quantity of industrial waste water generated from manufacturing process & other ancillary operation shall not exceed 2.2 KL/Day.																																					
3.5	The quantity the Domestic waste water (sewage) shall not exceed 1.2 KL/Day.																																					
3.6	Industrial effluent from process plant, washing etc. shall be collected separately & treated into ETP adequately so that treated industrial effluent shall comply with following norms:																																					
	<table><tr><th>PARAMETER</th><th>PERMISSIBLE LIMIT</th></tr><tr><td>pH</td><td>6.5 to 8.5</td></tr><tr><td>Temperature</td><td>40°C</td></tr><tr><td>Color</td><td>100 Units</td></tr><tr><td>Suspended Solids</td><td>100 mg/l</td></tr><tr><td>Oil & Grease</td><td>10 mg/l</td></tr><tr><td>Phenolic Compound</td><td>01 mg/l</td></tr><tr><td>Amonical Nitrogen</td><td>50 mg/l</td></tr><tr><td>BOD (03 days At 27° C)</td><td>30 mg/l</td></tr><tr><td>COD</td><td>100 mg/l</td></tr><tr><td>Chloride</td><td>600 mg/l</td></tr><tr><td>Sulphates</td><td>1000 mg/l</td></tr><tr><td>Total Dissolved Solids</td><td>2100 mg/l</td></tr><tr><td>Sulphides</td><td>02 mg/l</td></tr><tr><td>Percent Sodium</td><td>60%</td></tr><tr><td>Sodium Adsorption Ratio</td><td>26</td></tr></table>						PARAMETER	PERMISSIBLE LIMIT	pH	6.5 to 8.5	Temperature	40°C	Color	100 Units	Suspended Solids	100 mg/l	Oil & Grease	10 mg/l	Phenolic Compound	01 mg/l	Amonical Nitrogen	50 mg/l	BOD (03 days At 27° C)	30 mg/l	COD	100 mg/l	Chloride	600 mg/l	Sulphates	1000 mg/l	Total Dissolved Solids	2100 mg/l	Sulphides	02 mg/l	Percent Sodium	60%	Sodium Adsorption Ratio	26
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	Treated effluent confirming to the above standards shall be reuse in within plant only.																																					
3.7	Industry shall provide fixed pipeline with flow meter for reuse of treated effluent to achieve Zero Liquid Discharge.																																					
3.5	Sewage shall be disposed of through septic tank / soak pit system.																																					
4	Conditions under the Air Act																																					
4.1	The following shall be used as fuel.																																					
	<table><tr><td>Sr No</td><td>Fuel</td><td>Quantity</td></tr><tr><td>1</td><td>HSD</td><td>20 Lit/Hr.</td></tr><tr><td>2</td><td>LDO</td><td>290 Lit/Day</td></tr><tr><td>3</td><td>Fire Wood</td><td>08 MT/Day</td></tr><tr><td>4</td><td>Coal</td><td>05 MT/Day</td></tr></table>						Sr No	Fuel	Quantity	1	HSD	20 Lit/Hr.	2	LDO	290 Lit/Day	3	Fire Wood	08 MT/Day	4	Coal	05 MT/Day																	
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4.2	The flue gas emission through stack shall confirm to the following standards.																																					
	<table><tr><td>Stack No</td><td>Stack attached to</td><td>Stack height in meter</td><td>APCM</td><td>Parameter</td><td>Permissible Limit</td></tr><tr><td>1</td><td>Boiler (01 TPD)</td><td>12</td><td>Water Scrubber</td><td>PM</td><td>150 mg/Nm3</td></tr></table>						Stack No	Stack attached to	Stack height in meter	APCM	Parameter	Permissible Limit	1	Boiler (01 TPD)	12	Water Scrubber	PM	150 mg/Nm3																				
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	2	Vessel (12 TPD)	11	with Cyclone Separator	SO2 NOx	100 PPM 50 PPM
	3	Furnace	30	Alkali Scrubber		
	4	DG Set (80 kVA) Stand by	11	--		
4.3	There shall be no process gas emission from manufacturing activities and other ancillary operations.					
4.4	The concentration of the following 11 parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder as per National Ambient Air Quality Standards issued by MoEF & CC dated 16th November-2009.					
	Sr. No.	Pollutant	Time Weighted Average		Concentration in Ambient air in microgram/cum	
	1	Sulphur Dioxide (SO ₂)	Annual 24 Hours		50 80	
	2	Nitrogen Dioxide (NO ₂)	Annual 24 Hours		40 80	
	3	Particulate Matter (PM ₁₀)	Annual 24 Hours		60 100	
	4	Particulate Matter (PM _{2.5})	Annual 24 Hours		40 60	
4.5	The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.					
4.6	The industry shall make adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(a) during day time and 70 dB(A) during night time. Daytime is reckoned in between 6 AM to 10 PM and nighttime is reckoned between 10 PM to 6 AM.					
4.7	<u>DG Sets Conditions:</u> The D.G. Set shall have acoustic enclosure and shall comply with the standards specified at Sr. no. 95 of Schedule-I of the rule-3 of E.P. Rules -1986 and Noise pollution level as per the Air Act-1981. <u>D.G. Sets standards:</u> The flue gas emission through stack attached to D.G. Sets shall conform to the following standards. a) The minimum height of stack to be provided with each of the generator set shall be $H=h+0.2(KVA)^{1/2}$, where H=Total stack height in meter, h=height of the building in meters where or by the side of which the generator set is installed. b) Noise from DG set shall be controlled by providing an acoustic enclosure or by treating the room acoustically, at the user's end c) The acoustic enclosure or acoustic treatment of the room shall be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on the higher side (if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/ acoustic treatment. Such circumstances the performance may be checked for noise reduction up to actual ambient noise level,					



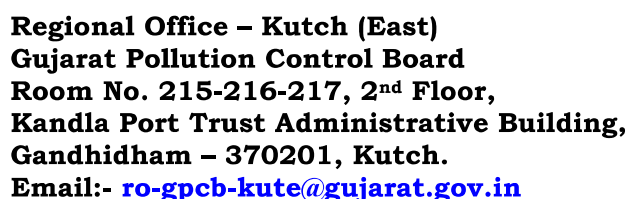
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	preferably, in the night time). The measurement for insertion loss may be done at different points at 0.5 m from the acoustic enclosure/room, and the averaged. d) The D.G. Set shall be provided with proper exhaust muffler with insertion loss of minimum 25 dB (A). e) All efforts shall be made to bring down the noise level due to the D.G. Set, outside the premises, within the ambient noise requirements by proper siting and control measures. f) Installation of a D.G. Sets must be strictly in compliance with the recommendations of the D.G. Set manufacturer. g) A proper routine and preventive maintenance procedure for the D G. Set should be set and followed in consultation with the DG Set manufacture which would help prevent noise levels of the DG Set from deteriorating with use.																														
5	Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 & amended.																														
5.1	Authorization Number: AWH -43501 Date of Issue: 21/10/2020 and shall valid up to 27/06/2025.																														
5.2	M/s. Aviation Corporation (PCB ID –63724), is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated PLOT NO: S. No. 67/2/P1, Shikarpur– 370150, TAL: Bhachau, DIST: Kutch. <table><tr><th>Sr. No</th><th>Waste</th><th>Quantity</th><th>Schedule-I</th><th>Facility</th></tr><tr><td>1</td><td>Used or spent Oil</td><td>1800 MT/yr.</td><td>5.1</td><td>Receipt, Collection, Storage, Transportation & reused in process.</td></tr><tr><td>2</td><td>Oily waste</td><td>1800 MT/yr.</td><td>5.2</td><td>Receipt, Collection, Storage, Transportation & reused in process.</td></tr><tr><td>2</td><td>Sludge from Wet Scrubber</td><td>05.0 MT/yr.</td><td>37.1</td><td>Collection, Storage, Transportation & Disposed to TSDF site.</td></tr><tr><td>3</td><td>Sludge and filter contaminated with Oil</td><td>20.0 MT/yr.</td><td>3.3</td><td>Collection, Storage, Transportation & Disposed to TSDF site.</td></tr><tr><td>4</td><td>Empty barrels/ containers/ liners contaminated with hazardous chemicals / wastes</td><td>04.00 M/yr.</td><td>33.1</td><td>Collection, Storage, Transportation & disposed by selling it to registered recycler.</td></tr></table>	Sr. No	Waste	Quantity	Schedule-I	Facility	1	Used or spent Oil	1800 MT/yr.	5.1	Receipt, Collection, Storage, Transportation & reused in process.	2	Oily waste	1800 MT/yr.	5.2	Receipt, Collection, Storage, Transportation & reused in process.	2	Sludge from Wet Scrubber	05.0 MT/yr.	37.1	Collection, Storage, Transportation & Disposed to TSDF site.	3	Sludge and filter contaminated with Oil	20.0 MT/yr.	3.3	Collection, Storage, Transportation & Disposed to TSDF site.	4	Empty barrels/ containers/ liners contaminated with hazardous chemicals / wastes	04.00 M/yr.	33.1	Collection, Storage, Transportation & disposed by selling it to registered recycler.
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5.3	The authorization is granted to operate a facility for collection, storage within factory premises, transportation and ultimate disposal of Hazardous waste by selling it to registered recyclers.																														
5.4	Unit shall apply for authorization for other types of hazardous waste referring to the amended Rules.																														
5.5	The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.																														
5.6	Terms and conditions of authorization:-																														
1.	The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.																														



Regional Office – Kutch (East)
Gujarat Pollution Control Board
Room No. 215-216-217, 2nd Floor,
Kandla Port Trust Administrative Building,
Gandhidham – 370201, Kutch.
Email:- ro-gpcb-kute@gujarat.gov.in

2.	The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
3.	The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.
4.	Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5.	The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6.	The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on “Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty”.
7.	It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
8.	The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
9.	The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10.	The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
11.	The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
12.	An application for the renewal of an authorization shall be made as laid down under these Rules.
13.	Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14.	Annual return shall be filed by June 30th for the period ensuring 31st March of the year.
5.7	General Conditions
1	Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
2	Applicant shall also comply with the general conditions given in annexure I.
3	The waste generator shall be totally responsible for (I.E. Collection, storage, transportation and ultimate disposal) of the wastes generated.
4	Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form - 4 by 31st January of every year.
5	In case of any accident, details of the same shall be submitted in Form - 5 to Gujarat Pollution Control Board.
6	As per “Public liability Insurance Act - 91” company shall get Insurance policy, if applicable.
7	Empty drums and containers of toxic and hazards material shall be treated as per guideline published for management & handling of discarded containers”. Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
8	In no case any kind of hazardous waste shall be imported without prior approval of appropriate authority.
9	In case of transport of hazardous waste to a facility for (I.E. Treatment, Storage and disposal) existing in a state other than the state where hazardous waste are generated, the occupier shall obtain “No Objection certificate” from the state pollution Control Board, the Committee of the



**For and behalf of
Gujarat Pollution Control Board**

Regional Officer, Kutch(East)



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232155

Website : www.gpcb.gov.in

By-R.P.A.O.

In exercise of the power conferred under section-25 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 Sub 8(2) of the Hazardous & other Waste (Management and Transboundary Movement, Rules 2016 framed under the Environmental Protection Act-1986.

And whereas board has received consolidated consent application letter No 120321 dated 17/04/2017 for the Consolidated Consent and Authorization (CC & A) of this Board under the provisions of rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENT

(Under the provisions of rules of the aforesaid environmental acts)

To,

M/S. ARJMA PETROCHEM (ID-13588).

PLDT NO. 50.

GIDC, VARTOL

VARTOL-364001.

TAL-DIST-SHIVNAGAR.

1. Consent Order No. AWR-87122 date of issue, 13-07/2017.

2. The consents shall be valid up to 31/03/2022 for use of outlet for the discharge of effluent & emission due to operation of industrial plant for manufacture of the following items/products:

Sr. No.	Product	Capacity
1	Re- Refined used oil	125KL/Month

3. CONDITIONS UNDER WATER ACT 1974:-

3.1 The quantity of the industrial discharge shall not exceed 1.5 KL/day. Generated waste water will be evaporated in evaporation tank after primary treatment hence there shall be 'Zero Discharge' from the industry. The records regarding the generation of trade effluent, evaporation data etc shall be maintained in the form of a log-book & made available to the monitoring staff.

3.2 The quantity of the domestic waste water (sewage) shall not exceed 0.8 KL/day.

3.3 Sewage shall be disposed of through Septic tank/soak pit system.

4. CONDITIONS UNDER AIR ACT 1981:-

4.1 The following shall be used as fuel in the Furnaces respectively.

Sr. No.	Fuel	Quantity
1	Wood	3.0 Kg./Hrs

4.2 The applicant shall install & operate pollution control system in order to achieve norms prescribed below.

4.3 The flue gas emission through stack shall conform to the following standards:

Sr.No.	Common attached to	Stack height in Meter	Air Pollution Control System	Parameter	Permissible Limit
	Furnace(3No's)	33	Cyclone separator	Particulate Matter SO ₂ NO _x	50 mg/Nm ³ 100 ppm 50 ppm

4.4 There shall be no process emission from the manufacturing process as well as other auxiliary process.

4.5 Stack monitoring facilities like port hole, platform/ladder etc., shall be provided with stack/vent chimney in order to facilitate sampling of gases being emitted in to the atmosphere.

4.6 The concentration of the following substances in the ambient air within the premises of this industry and at a distance of 10 meters from the source (other than the stack/vent with height of more than 9 meter from the ground level) shall not exceed the following levels.

(Signature)

Page 1 of 4

- 4.7 Ambient air quality within the premises of the industry shall conform to the following standards:-

PARAMETER	PERMISSIBLE LIMIT	PERMISSIBLE LIMIT
	Annual	24 hrs. Average
Particulate matter (TSPM) ¹	60 Microgram /NM ³	100 Microgram /NM ³
Particulate matter (SPM) ²	40 Microgram /NM ³	60 Microgram /NM ³
SO ₂	50 Microgram /NM ³	80 Microgram /NM ³
Nox	40 Microgram /NM ³	80 Microgram /NM ³

- 4.8 All measures for the control of environmental pollution shall be provided before commencing production.

5. GENERAL CONDITIONS:-

- 5.1 Any change in operational conditions or working conditions as mentioned in the Conditions for closure should immediately be intimated to this Board.
- 5.2 Applicant shall also comply with the general conditions given in annexure I.
- 5.3 Industry shall have to display on-site data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the Plant, including wastewater and air emissions and also of hazardous waste generated within the factory premises.
- 5.4 Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Hon. Supreme order in w.p. no. 557 of 1995 dated 14th October 2003.
6. Authorization under Hazardous and Other Waste (Management and Transboundary Movement) Rules-2016 FORM 2 (See para 5.2)

FORM FOR GRANT OR RENEWAL OF AUTHORISATION BY STATE POLLUTION CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS USER AND OPERATORS OF DISPOSAL FACILITIES

- 6.1 Number of authorization: AWH-87122; Date of issue: 13/07/2017

M/s. AROMA PETROCHEM (ID-13688) is hereby granted an authorization to operate a facility for following hazardous wastes on the premises situated at PLOT NO. 60, G-DC, VARTEL, VARTEL-364001, Tal-Dist-Bhavnagar.

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorized mode of disposal or recycling or utilization or co-processing, etc.	Quantity (Ton/Annum)
1.	1/4.4	Collection, storage, transportation, disposal at TSDF site.	300 MT/Yr
2.	1/35.3	Collection, storage, transportation, disposal at TSDF site.	0.1 MT/Yr
3.	Sch-IV	Reception, Collection, storage, transportation, & Re-refining	1500 MT/Yr
4.	1/35.3	Collection, storage, transportation, disposal at TSDF site.	95 MT/Yr
5.	1/33.1	Collection, storage, transportation, decontamination	4.8 MT/Yr
6.	1/36.2	Collection, storage, disposal or incineration	0.2 MT/Yr

- 6.2 The authorization is granted to operate a facility for collection, storage within factory premises, transportation and Recycle

- 6.3 The authorization shall be valid up to 31/03/2022.

(Signature)



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

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Website : www.gpcb.gov.in

6.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act 1986.

7. TERMS AND CONDITIONS OF AUTHORISATION:

- The applicant shall comply with the provisions of the Environment (Protection) Act - 1986 and the rules made there under.
- The authorization shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.

B. General Conditions:

A. Conditions under Hazardous and other Wastes (M&TM) Rules-2016

- The Authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
- The Authorization or its renewal shall be produced for inspection at the request of an officer Authorized by the State Pollution Control Board.
- The person Authorized shall not haul, land, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through the authorization.
- Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of the authorization.
- The person authorized shall implement Emergency Response Procedure (ERP) for which the authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
- The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penally".
- It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
- The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
- The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- The hazardous and other waste which gets generated during recycling or reuse or recovery or post-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
- The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
- An application for the renewal of an authorization shall be made as laid down under these Rules.
- Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- Annual return shall be filed by June 30 for the period ensuing 31st March of the year.

B. Specific Conditions

- The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.
- Handing over of the hazardous and other wastes to the authorized actual user shall be only after making the entry into the passbook of the actual user.
- In case of renewal of authorization, a self-certified compliance report in respect of effluent emission standards and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.

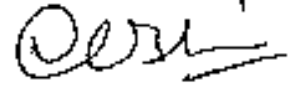
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4. The occupier of the facility shall comply Standard operating procedure/ guidelines published by MoEF&CC or CPCB or GPCB from time to time.
5. Environmental safety provisions of Environment Management Rules-2016.
6. The handling of Hazardous waste shall be carried out as per the waste management hierarchy.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD,



(Chirag Bhimani)
Unit head

No. PCBCA/SIV-41610/10/86

Date.

Issued to:
✓ M/S. AROMA PETROCHEM (ID-13686).
PLOT NO. 80,
GIDC, VARTOL,
VARTOL-364001,
TAL-DIST-BHARUCHA

Outward No: 421013, 21/08/2017

Signature Not Verified

Digitally signed by BHIMANI
CHIRAG
Date: 2017.09.29 14:31:09 IST
Reason: Secure Document
Location: India

Page 4 of 4



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

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Website : www.gpcb.gov.in

By R.F.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorisation under Hazardous Waste (Management and Transboundary Movement) Rules'2016 framed under the Environmental (Protection) Act-1986.

And whereas Board has received consolidated consent application letter dated 02/11/2017 for the Consolidated Consent and Authorization (CC & A) of this Board under the provisions / rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:

(under the provisions /rules of the aforesaid environmental acts)

To;

JAWRAWALA PETROLEUM

PLOT NO. 200/33,

B/H KASHIRAM TEXTILE, NAROL,

AHMEDABAD-382405

1. Consent Order No.: AWH-90572 Date of Issue: 20/01/2018
2. The consents shall be valid up to 12/02/2024 for use of outlet for the discharge of trade effluent & emission due to operation of industrial plant for manufacture of the following items/products:

Sr. No	Name (Qty:MT/Month)	Existing Quantity	Proposed Quantity	Total Quantity
1	Re-Cycled Waste Oil	600KL/Month	-	600 KL/Month
2.	Re- refined used oil	400KL/Month	-	400KL/Month
3.	De Contamination,De toxification and Recycle/Reconditioning of Empty barrels (MS & Plastics)	20,000 No/Month	180,000 No/Month	2,00,000 No/Month
4.	Plastic Scrap Granules	100 MT/Month	1900 MT/Month	2000MT/Month
5.	MS Cut Barries & Sheets	-	3,000 MT/Month	3,000MT/Month

Specific Condition

- 1) CCA Order no: AWH-61464 dated: 01/04/2014 shall considered as cancelled.
 - 2) Unit shall comply with CPCB guideline for Environment Sound Technology for waste oil/used oil Recycling and also SOP for decontamination of discarded containers/Barrels/drums.
 - 3) Unit shall explore the possibility of co-processing for incinerable Haz. Waste in cement industry & shall Submit the progress report for the same.
 - 4) Unit shall obtain necessary permission under the Plastic Waste Management Rules-2016.
3. **CONDITIONS UNDER THE WATER ACT:**
- 3.1 The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall not exceed 29,600 lits/day. Out of which 2000 lit/day treated effluent (Condensate) shall be reuse and 18,000 lit/day treated effluent shall be evaporated in electricity operated evaporator & 11,600 Lit/day treated effluent shall be incinerated. Thus there shall be No discharge of any industrial effluent within or outside unit.
 - 3.2 The quantity of Sewage effluent from the industry shall not exceed 2000 L lit/day.

1

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- 3.3 Domestic effluent shall be discharged off through septic tank/soak pit system.
- 3.4 The directives issued by the Board from time in view of direction issued by the Honorable High Court Of Gujarat in the matter of S.C.A. 770/95 and any other shall have to be complies with.
4. **CONDITIONS UNDER THE AIR ACT:**
- 4.1 Following shall be used as fuel in Wood & LDO.

Sr.No.	Fuel	Existing Quantity	Proposed Quantity	Total Quantity
1	Wood (04 No) (Furnace)	400 Kg/day	-	400 Kg/day
2	LDO	35L/hour	20L/hr	55 L/hour

- 4.2 The applicant shall install & operate air pollution control system in order to achieve norms prescribed below
- 4.2.1 The flue gas emission through stack attached to boiler/furnace/heater shall conform to the following standards:

Stack No.	Stack attached to	Stack height in meter	Air Pollution Control System	Parameter	Permissible Limit
1.	Furnace(Existing)-3No	30 (Common Stack)	Scrubber & quencher	Particulate Matter SO ₂ NO _x	150 mg/Nm ³ 100 ppm 50 ppm
2.	Heating furnace (Proposed new)-1No Attached to single effect evaporator				
3.	Thermic fluid Heater	11			
4.	DG set (125 KVA)				

- 4.2.2 The Process gas emission through stack attached to boiler/furnace/heater shall conform to the following standards:

Stack No.	Stack attached to	Stack height in meter	Air Pollution Control System	Parameter	Permissible Limit
1.	Cative incinerator for hazardous waste (cap-500 kg/hr)	11	Alkali scrubber	Particulate Matter SO ₂ NO _x HCL cl ₂ HF CO TOC	150 mg/Nm ³ 100 ppm 50 ppm 50 mg/Nm ³ 09 mg/Nm ³ 04 mg/Nm ³ 100 mg/Nm ³ 20 mg/Nm ³



GUJARAT POLLUTION CONTROL BOARD

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- 4.2.3 Ambient air quality within and outside the premises of the unit shall conform National Ambient Air Quality standards notified by MOEF vide notification dated 16/11/2009 and mainly to the following standards:-

Sr. No.	Pollutant	Time Weighted Average	Concentration in Ambient air
1.	Sulphur Dioxide (SO ₂), µg/m ³	Annual 24 Hours	50 80
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual 24 Hours	40 80
3.	Particulate Matter (Size less than 10 µm) OR PM ₁₀ µg/m ³	Annual 24 Hours	60 100
4.	Particulate Matter (Size less than 2.5 µm) OR PM _{2.5} µg/m ³	Annual 24 Hours	40 60

- 4.3 The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

- 4.4 The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6 a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

- 4.5 The applicant shall provide proper ventilation and exhaust facilities so as to maintain healthy working atmosphere within the factory premises.

5. GENERAL CONDITIONS:-

- 5.1 Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.

Form for grant of authorisation for occupier or operator handling hazardous waste

6. AUTHORISATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES

Form-2 (See rule 6 (2))

- 6.1 Number of authorisation: AWH-90572 Date of Issue: 20/01/2018

- 6.1.1 Jawrawala Petroleum, is hereby granted an authorisation to operate facility for following hazardous wastes on the premises situated at PLOT NO.200/33-, B/H KASHIRAM TEXTILE, NAROL, AHMEDABAD-382405

Sr. No.	Waste	Quantity	Process Category	Facility and Final Disposal
1	ETP Waste	1.8 MT/y	35.3	Collection, Storage, Transportation, Disposal at TSDF-NECL Vadodara
2	Discarded Containers	2,00,000 nos./Month	33.1	Reception, Storage, Decontamination & Transportation

3	Used Oil	400KL/Month (4800 KLA)	5.1	Reception, Storage, reprocessing in your unit.
4	Spent Clay	120 MT/yr	4.5	Disposal by Captive incinerator/send to cement ind for co-processing
5	Filer& Filtered Material	0.84MT/yr	36.1	Disposal by Captive incinerator/send to cement ind for co-processing
6	Incineration ash	150 MT/yr	37.2	Collection, Storage, Transportation, Disposal at TSDF -NECL Vadodara
7	Olly Sludge	768 KL/yr	4.1	Disposal by Captive incinerator/send to cement ind for co-processing
8	Waste oil	600KL/Month (7200 KLA)	5.2	Reception, Storage, reprocessing in your unit.

6.1.2 The authorisation is granted to operate a facility for collection, storage, within the factory premises and as per 6.1.1

6.1.3 The authorisation shall be valid up to 12/02/2024.

6.1.4 The authorisation is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

6.1.5 TERMS AND CONDITIONS OF AUTHORISATION

- The applicant shall comply with the provisions of the Environment (Protection) Act - 1986 and the rules made there under.
- The authorisation shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
- The persons authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
- Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorisation order by the persons authorized shall constitute a breach of this authorisation.
- It is the duty of the authorised person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
- An application for the renewal of an authorisation shall be made as laid down in rule (6) (ii).
- Industry shall have to manage waste oil, discarded containers etc as per Hazardous and Other Wastes (Management & T.M.) Rule-2016.
- Industry shall submit annual report by 30th June every year.

For and on behalf of
Gujarat Pollution Control Board


A. Tal
Sr. Environmental Engineer

NO: GPCB/ABD/NL/CCA-98 A (3)/ID-11849/
JAWRAWALA PETROLEUM
PLOT NO. 200/33-
B/H KASHIRAM TEXTILE, NAROL,
AHMEDABAD-382405.



DETOX GROUP

Saurashtra Enviro Projects Pvt. Ltd.

Integrated Common Hazardous Waste Management Facility

Certificate

Certificate No : 1200000023

To Whomsoever it may concern

This is to certify that

ADANI PORTS & SPECIAL ECONOMIC ZONE LTD.

PLOT NO.168/P,
AT: NAVINLAL ISLAND,
TAL:MUNDRA,

KUTCH

is a valid member of

SAURASHTRA ENVIRO PROJECTS PVT. LTD.

for Integrated Common Hazardous Waste Management Facility.

This membership is valid for a period of

5 Years

Date of issue : 06.02.2019

Date of expiration : 05.02.2024

Place of issue : Surat

For, Saurashtra Enviro Projects Pvt. Ltd.

Director

SUBJECT TO SURAT JURISDICTION

Corporate Office : Detox House, Opp. Gujarat Samachar Press, Udhna Darwaja, Ring Road, Surat - 395 002. (Guj.)
p. +91 261 2351248, 2346181 f. +91 261 2354068
e. info@sepplindia.com w. www.detoxgroup.in
CIN :- U51100GJ2006PTC047689

Purchaser's Name APSEZ, Mundra
 Address Mundra
 Value Rs. 3.00
 In Words Three hundred
 License No. Gujarat/AUTHIAV/01/2006/3717

AXIS BANK LTD.
 ADANI PORT, MUNDRA-370421
 GUJ/SOS/AUTHIAV/01/2006

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 MAY 30 2020
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 INDIA STAMP DUTY GUJARAT

Service Agreement

This Service Agreement (hereinafter referred to as the "Agreement"), is made and entered into at Ahmedabad on this 20th May, 2020

By and between

Adani Ports And Special Economic Zone Limited, a Company incorporated under the Companies Act, 1956 having CIN No. L63090GJ1998PLC0034182 and its Registered Office at Adani House, Mithakhali Six Roads, Navrangpura, Ahmedabad and Corporate office at Adani Corporate House Shantigram S C Highway P.O. Ahmedabad-382421, and its port office situated at Adani Port, Navami Island Mundra -370421 District Kutch, Gujarat (hereinafter referred to as the "APSEZL or the First Party" or "the Generator", which expression shall, unless repugnant to the context of meaning thereof, be deemed to mean and include its successors in business and assigns) represented herein by its duly constituted attorney Mr. Avinash Rai (CEO- APSEZ Mundra & Tuna Ports) who is authorized to do so by position he holds at/of the First Part.

And

Ambuja Cements Limited, a Company incorporated under the Indian Companies Act, 1956, having CIN No. L26942GJ1981PLC004717 and its Registered Office at P.O. Ambuja Nagar, Taluka - Kodinar, Amreli, District - Gir Somnath, Gujarat - 362715 having its division/ unit/ section as "Cemicycle" that provides specialized services for thermal destruction or recovery of hazardous non Hazardous waste material in cement kilns (hereinafter referred to as the "Second Party/ACL," which expression shall, unless repugnant to the context, mean and include its successors and assigns) represented herein by its duly constituted attorney Mr. S Ramanna (MCH- West & South) who is authorized to do so by position he holds at/of the Other Part.

APSEZL and ACL shall be collectively addressed / referred to as "the Parties" and individually as "Party" herein after in this Agreement.

WHEREAS, First Party, is in the business of Port and SEZ Operations and its Plants are situated at Mundra, Kutch, Gujarat (hereinafter referred to as the First Party's "Manufacturing Units") and is in search of disposal of (i) Contaminated Culture waste (Cat. 33.2), (ii) Pig Waste (Cat. 3.1) and (iii) FIP Sludge (Cat. 35.3) and (iv) Sorted MSW- Non Hazardous (which are generated at First Party's Manufacturing Units during its production process (hereinafter referred to as the "Waste Material"), which is categorized as Hazardous Waste as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.



S. K. Rai

S. Ramanna



First party also generates non-recyclable sorted municipal solid waste i.e. dry plastic waste (hereinafter referred to as the "Waste Material"), which is categorized as Non-Hazardous Waste.

AND WHEREAS, Second Party is in the business of manufacture and sale of different types and grades of cement and has the capability to dispose the waste materials in an environment friendly manner in the cement kiln process having high temperature and long residence time (hereinafter referred to as "Co-Processing") while simultaneously producing cement of desired quality.

AND WHEREAS, Geocycle is a business unit of ACL that provides specialized services for thermal destruction or recovery of hazardous/non hazardous waste material in cement kilns.

AND WHEREAS First Party has approached Second Party for evaluating the feasibility of safe disposal of the Waste Material which is generated at its Segregation Plant, in an environment-friendly manner and based on the evaluation report, the Second Party has offered to Co-Process the Waste Material generated by First Party's Segregation Plant in the Cement Kiln at its Ambuja Cements Limited, at P.O. Ambuja Nagar, Taluka - Kodinar, Amreli, District - Gir Sumnath, Gujarat - 362715 (hereinafter referred to as the "Cement Plant").

AND WHEREAS, First Party and Second Party have agreed that Second Party shall provide the services of Co- Processing the Waste Material in the Cement Kiln at its Ambuja Cement Plant (hereinafter referred to as the "Services"), subject to First Party and Second Party obtaining all statutory clearances, consents, no objection certificate, writings and confirmations as may be applicable from various authorities and Government Agencies for the said purpose.

NOW, THEREFORE, for and in consideration of the foregoing premises and of the mutual covenant herein after stipulated, the Parties hereto, one with the other, do hereby agree as follows:

1.0 Execution of Services

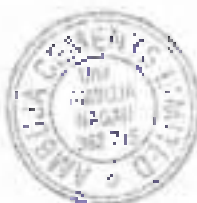
1.1 Scope

The Second Party shall during the Term of the Agreement (as set out in Clause 7 herein below), provide the Services i.e. Co-Processing of all the consignments of Waste Material of the First Party, delivered to the Cement Plant of the Second Party, which conform to the specification set out in Annexure A attached to the Agreement and which does not contain any of the items listed in the banned item list as set out in Annexure B attached to the Agreement.

1.2 Packaging and Labeling

Prior to shipment of any consignment of Waste Material to Second Party's Plant for the provision of the Services, the First Party shall comply with the following conditions:

- 1.2.1 Arrange to pack the Waste Material in Double layered/High Density Poly Ethylene (HDPE) bags locked properly with plastic locks/properly sealed packed cartons/Bulk/Loose/Baled form (Baling should not be done through metallic wires) - (Change as per requirement) to avoid any leakages, overall weight of the packing should not be more than 300 X 300 X 300 MM.
- 1.2.2 Label every authorized vehicle (closed container type for transporting Haz Waste) loaded with Waste Material in the format set out in Annexure C attached to the Agreement specifying name of waste, quantity of waste, particle size of waste, size of packaging, Type of waste ("Hazardous/Other Waste") in bold letters both in English and Local Language and with other relevant identification as stipulated under applicable laws.
- 1.2.3 Provide the copies of Health & Safety Data Sheet (in the format as set out in Annexure G) with each consignment of Waste Material.



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1.3 Quantity and Schedule of Delivery

- 1.3.1 First Party shall supply the agreed quantities of Waste Material as set out in Annexure D, generated at its plant, free of all costs and with zero invoice value, to the Second Party's Cement Plant.
- 1.3.2 First Party shall deliver all the consignment of Waste Material from its plant to the Second Party's Cement Plant by road transportation at its own cost and risk as per the delivery schedule set out in Annexure D attached to the Agreement. Either Party may after mutual agreement with other Party, revise the delivery schedule anytime during the term of the Agreement after giving seven (7) days advance intimation in writing to the other Party, prior to dispatch of any fresh consignment of Waste Material as per the delivery schedule as set out in Annexure D attached to the Agreement. All consignment of Waste Material shall be delivered to the storage area(s) at the Second Party's Cement Plant.
- 1.3.3 First Party shall guide the transporter on the measures to be taken in case of emergency during transportation and ensure the compliance of 'Guidelines on Transportation' as set out in Annexure E attached to the agreement during Transportation of Waste Material from First Party's Manufacturing facility to Second Party's Cement Plant.
- 1.3.4 Both the Parties declare and confirm that they shall comply with relevant portion of the Protocols for Receipt of Waste Material as set out in Annexure T attached to the Agreement.
- 1.3.5 The risks and liability associated with the Waste Material shall lie with the First Party till the Waste Material provided by the First Party is accepted by the Second Party at its Cement Plant, as per clause 1.3.8 & 1.3.9 herein.
- 1.3.6 Second Party shall provide an orientation to the designated transporters, employees, agents and the representatives of the First Party on the applicable statutory provisions and regulations as also Security, Health and Safety Rules including the Health and Safety Policy (set out in Annexure K), as applicable at the Second Party's Cement Plant, prior to commencement of dispatch of any consignment of Waste Material by First Party to the Cement Plant. Provided the First Party shall be responsible for ensuring compliance of all applicable statutory provisions and regulations as also Security, Health and Safety Rules including the Health and Safety Policy (set out in Annexure K), as applicable at the Second Party's Cement Plant, by such transporters, their employees and agents and the representatives of the First Party involved in the unloading, transportation and handling of the Waste Material.
- 1.3.7 First Party shall at its own cost, arrange to get every consignment of Waste Material weighed at an authorized weighbridge and issue the weighbridge challan to the approved transporter while dispatching the consignment of Waste Material to the Cement Plant of the Second Party. The quantity of Waste Material in any consignment delivered by the First Party to the Second Party's Cement Plant shall be determined by the electronic weighbridge installed at the Cement Plant. All Waste Material related reports including inventory list shall be prepared as per the Second Party's electronic weighbridge records maintained at the Cement Plant, which shall be the conclusive documentary proof evidencing the actual quantity of Waste Material received by the Second Party in any consignment dispatched from the First Party's Depot. In the event of any dispute relating to the actual quantities of Waste Material dispatched by the First Party and received by the Second Party, the Parties hereto shall resolve the same in good faith through discussion on the appropriate actions required to be taken for verification and correction of any discrepancy.
- 1.3.8 Second Party shall arrange for unloading, storage and handling of the Waste Material delivered by First Party to the storage area(s) at its Cement Plant in accordance with the Risk Assessment and Crisis Management Plan to be prepared before the delivery of the Waste Material to the storage area (s) of Cement Plant by the Second Party in consultation with the



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First Party on the basis of Health & Safety Data Sheet, provided by First Party as set out in Annexure G attached to the Agreement. The costs, risks, liability related to unloading, bundling and storage of Waste Material in the Cement Plant during the acceptance process shall be with the First Party. However the cost of unloading, handling and storage during acceptance process has been built into the Service Charges and the First Party need not pay the same separately.

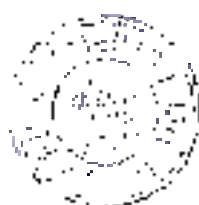
- 1.3.9 The stores department of the Second Party shall issue acceptance receipt to the First Party within eight (8) days from the date of delivery of Waste Material consignments by the First Party at the Cement Plant of Second Party. If the Second Party delays issuance of such acceptance receipt beyond eight (8) days from the date of delivery of consignments of Waste Material by the First Party, it shall be deemed that Second Party has accepted the consignment of Waste Material along with its risk and liability on and from the end of the eighth (8) day. The Waste Material acceptance receipt issued by stores in charge at the Second Party's Cement Plant shall be the conclusive documentary proof evidencing the acceptance of any consignment of Waste Material by the Second Party for the provision of the Services.

1.4 Non-Conforming Waste Material

- 1.4.1 First Party declares and confirms that all the consignment of the Waste Material delivered at the storage area(s) of the Cement Plant of the Second Party pursuant to the Agreement shall
- 1.4.1.1 Conform to the specifications as set out in Annexure A attached to the Agreement
 - 1.4.1.2 Be packed and labeled as per the clause 1.2 hereof
 - 1.4.1.3 Not contain any of the items listed in the banned item list as set out in Annexure B attached to the Agreement.
- 1.4.2 In case, Second Party is in receipt of any consignment that contains banned items or materials other than agreed between the parties as mentioned in Annexure A and/or the requirement under clause 1.2.2 (Packaging & labeling), then Second Party shall be entitled to refuse the acceptance of such consignment and shall intimate the same to First Party within 24 hrs of the receipt of consignment at Second Party's Plant and First Party shall arrange to transport that consignment at its own cost, expense and risk within 48 hrs from the time of intimation from Second Party on the refusal of acceptance of such consignment. If First Party fails to evacuate such rejected consignment of non-conforming Waste Material as stated above within 1 week, it shall be liable and pay to Second Party liquidated damages at the rate of Rs. 500/- per ton for each day of delay (take approval for removal from RSH for 1 plant/NSH for Pan India) in its evacuation from Second Party's Plant. On delay in evacuation of more than 10 days, without prejudice to its rights under Law Second Party shall have the right to further terminate this Agreement.
- 1.4.3 In case if the Waste Material is not conforming to the specifications, as mentioned in Annexure A and/or the requirement under clause 1.2.2 (Packaging & labeling), both the parties shall discuss in order to arrive at a solution with respect to Co-processing that consignment, provided the additional costs towards the same shall be borne by First Party.

1.5 General Responsibilities

- 1.5.1 First Party shall provide all relevant information relating to safe handling and storage practices of the Waste Material, provide reasonable assistance such as supervision required for safe handling and storage of the Waste Material and the inspection and confirmation of the suitability of the storage arrangement made by Second Party to store the Waste Material.
- 1.5.2 First Party shall be solely responsible for ensuring that all precautionary measures are complied with, to avoid any fire, explosion or accident during the loading, transportation and



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delivery of the Waste Material from the First Party's distribution centre to the storage area(s) of Cement Plant of Second Party for the provision of the Services.

- 1.5.3 First Party shall be responsible for the compliance of all statutory regulations and guidelines as applicable to its employees, agents or representatives engaged in loading, storage and handling of Waste Material at the First Party's plant and for onward dispatch to the Cement Plant of the Second Party.
- 1.5.4 Second Party shall be responsible for the compliance of all statutory regulations and guidelines as applicable to its employees, agents or representatives engaged in unloading, storage, handling and Co-processing of Waste Material at its Cement Plant.
- 1.5.5 Second Party shall be responsible to arrange for all tools, tackles, equipment and laboratory facilities necessary to provide the Services.
- 1.5.6 First Party shall be responsible to depute its representatives and senior executives to attend the meetings and answer any queries raised by Second Party relating to the Waste Material.
- 1.5.7 Second Party shall permit the First Party's designated persons to inspect the Co-Processing of the Waste Material at the Cement Plant, provided that First Party shall give a prior intimation in writing of such inspection to the Second Party.
- 1.5.8 First Party shall have in force and effect and shall maintain at its own cost such policy & policies of insurance as applicable, with a reputable authorized insurer which gives First Party adequate insurance cover in respect of any liability that may arise/ damage that may be caused to person/ property of First Party, Second Party & its contractors and any Third Party.
- 1.5.9 Second Party shall have in force and effect and shall maintain at its own cost such policy or policies of insurance as applicable, with a reputable authorized insurer which gives Second Party adequate insurance cover in respect of any liability that may arise or damage that may be caused to person or property of Second Party, First Party and third party.
- 1.5.10 In the event the Second Party is required to comply with statutory regulations and guidelines framed by the concerned authorities or Government Agency relating to emission monitoring for demonstrating the performance of Co-processing of the Waste Material pursuant to the Agreement, the same shall be complied with by the Second Party in consultation with the First Party. Provided, the reasonable costs for the same shall be borne by the First Party.

2.0 CERTIFICATE OF CO - PROCESSING

Second Party shall at the beginning of each month during the term of this agreement, issue to First Party Certificate of Co-Processing for the Waste Material received for Co-Processing during previous month in the format set out in Annexure I attached to the Agreement.

3.0 SERVICE CHARGES AND PAYMENT TERMS

In consideration of the Second Party providing the Services, the First Party shall pay to the Second Party co processing charges in the following manner:

- 3.1 First Party shall pay to Second Party, Service Charges towards Co-processing at Rs. 5000/- (Rs Five Thousand Only/-) per Ton of Cotton Waste & Rs. 5000/- (Rs Five Thousand Only/-) per Ton of Pig Waste Rs. 5000/- (Rs Five Thousand Only/-) per Ton of EIP Sludge and Rs 10/MT for Sorted MSW- Non-hazardous all are exclusive of any transportation cost.
- 3.2 Second Party shall issue an invoice on monthly basis with relevant supporting documents on First Party against Co-Processing services rendered to First Party on the basis of quantity received during previous month.



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- 3.3 The charges stated in clause 3.1 above shall be exclusive of all applicable taxes and duties. Applicable tax at the rate of 18 % (OR as per the latest Govt. norms) of the total service charge will be charged.
- 3.4 First Party shall make advance payment towards the proforma invoice as against dispatch planning. The Second Party will issue actual invoice on monthly basis based on material received in a particular month. In case of delay in any differential outstanding payments (with reference to advance payment made) beyond 10 days an interest at the rate of 18 % per annum shall be chargeable on the delayed payment.
- 3.5 If there is any dispute about any invoice amount, First Party shall be entitled to dispute the invoice amount within 5 days after receipt of invoice. If First Party does not raise any dispute, it is presumed that the same is acceptable and First Party shall be liable to make any differential payment (with respect to advance payment made) in respect of same within a period of 10 days from date of issue of invoice by Second Party.
- 3.6 All payout for co-processing charges, additional service charges, transportation charges, if any, and interest on overdue payments shall be made either by electronic fund transfer or by Crossed Cheque drawn in favor of "Ambuja Cements Limited" payable at Mumbai.

4. TAXES AND DUTIES

The Parties agree that all taxes, levies, imposts, deductions, charges, duties or withholdings which are assessed, levied, imposed or collected by any Government Central or State or authority and any taxes or levies arising in connection with the Agreement (other than income tax payable by Second Party) shall be included in the debit note issued by Second Party for co-processing charges and other charges, if any and shall be payable by First Party in addition to the co-processing charges and other charges, if any. The First Party agrees to provide the relevant certificate in respect of the income tax deduction at source on the amounts to be paid towards co-processing charges to the Second Party.

Without prejudice to generality of foregoing, First Party shall be responsible for the payment of the stamp duty applicable to the Agreement. Notwithstanding the foregoing, the Parties agree that they shall use their best efforts to obtain exemptions from the payment of any taxes from the concerned Government agency or authority as may be available under applicable laws.

5. STATUTORY COMPLIANCE

- 5.1 First Party shall be responsible for the following regulatory compliances under applicable laws:
- obtain statutory registrations, clearances, license no objection certificate, writings and confirmations from the concerned authorities and Government agencies, file returns, if required, relating to the loading, transportation and delivery of the Waste Material to the Cement Plant of the Second Party.
 - Pay all applicable taxes, cesses, duties or other levies on (i) the supply of Waste Material to Second Party and (ii) transportation of Waste Material from First Party's Manufacturing Plant to the Second Party's Cement Plant.
- 5.2 Second Party shall be responsible for the following regulatory compliances under applicable laws:
- obtain statutory registrations, clearances, license, no objection certificate, writings and confirmations, if required, from concerned authorities and Government Agencies for the provision of the Services to the First Party. File returns with the concerned authorities or Government agencies, if required, relating to the provision of the Services.
 - Pay all applicable taxes, cesses, duties or other levies on the Services.

Representations and Warranties of APSEZL

APSEZL covenants, represents and warrants to ACL that:



- I. it is in good standing and that it has full authority and all rights necessary to enter into this Agreement and to perform its obligations hereunder according to the terms thereof;
- II. this Agreement is a legal, valid, binding and enforceable in accordance with the terms hereof;
- III. by entering into this Agreement, it is not in breach or future shall not be in breach of any contractual obligation against any third party;
- IV. the person signing this Agreement, on its behalf, has been duly authorized by the APSEZL to execute this Agreement;
- V. it represents that it shall not dispatch any item listed in banned item list as set out in Annexure B to this Agreement.

6. CONFIDENTIALITY OF INFORMATION

- 6.1 All information given by one Party to the other, pursuant to this Agreement in tangible form, which is specifically marked as confidential as well as all intangible information which is specifically conveyed as confidential in writing within 7 days of disclosure of such information, shall be deemed to be "Confidential Information" for the purpose of this Agreement.
- 6.2 The Parties agree that the Confidential Information which has been or will be disclosed by or on behalf of the other Party will be received by the recipient Party in confidence and will be used only for performance under and in accordance with this Agreement.
- 6.3 Each Party acknowledges and agrees that all Confidential Information constitutes valuable, special and unique assets of the business of disclosing Party. Accordingly, the Parties agree that, in the event of any breach of this clause, in addition to any other remedies at law or in equity, the Parties shall be entitled to equitable relief, including injunctive relief and specific performance.
- 6.4 The confidentiality obligations of the Parties shall not apply to the following exceptions:
 - (a) any information which, either Party can demonstrate to the reasonable satisfaction of the disclosing Party, as already available in the public domain;
 - (b) any information which, either Party can demonstrate to the reasonable satisfaction of the disclosing Party, that such information is already available with them from a third party without any corresponding confidentiality obligations;
 - (c) any information which, either Party can demonstrate to the reasonable satisfaction of the disclosing Party, that such information has been originally developed by them without using the Confidential Information;
 - (d) any disclosure which may reasonably be required for the compliance of statutory obligations or for the purposes of legal proceedings.
- 6.5 Any publicity in connection with the Agreement by either Party shall be subject to the prior consent of the other Party.
- 6.6 Upon termination of this Agreement, each Party shall return to the other Party all confidential information (without retaining copies thereof) provided for the purposes of this Agreement.

7. TERM

- 7.1 That this Agreement shall be effective from its Effective Date i.e. date of signing and shall remain valid and binding on the Parties up to 31.12.22 inclusive of the both dates unless earlier terminated pursuant to terms herein below.
- 7.2 Thereafter, both the parties, at its option, may extend the validity of the contract for a further period of months/year on same term and conditions or on the term and conditions as may be mutually agreed between the Parties.



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8. TERMINATION OF AGREEMENT

8.1 Each Party may terminate this Agreement in the following events:-

- a) In case of breach of the terms and conditions of the Agreement by either of the Parties, the other Party, may give a written notice of Thirty (30) days to such defaulting Party, demanding it to remedy such breach. If the defaulting Party fails to remedy the breach within the notice period then the other Party shall have the right to terminate this Agreement with immediate effect.
- b) If either Party goes into liquidation or is ordered to be wound up by any court of law, the other Party shall have the right to terminate this agreement with immediate effect.
- c) Any Party herein may terminate this Agreement in case of Business exigencies, which shall be confirmed in a written document, executed by parties.

Upon termination of the Agreement, each Party shall endeavor to deliver to the other Party all documents and materials belonging to the other Party that may be in each Party's possession or under each Party's control. Provided the Second Party shall have the right to withhold all documents and materials belonging to First Party in the custody of Second Party, until such time all of Second Party's dues and/or invoices towards the co-processing charges, additional services charges, transportation charges, costs, if any, and interest on overdue payment incurred up to the date of termination have been settled by the First Party against the production of such invoices evidencing proof for such dues by Second Party.

8.2 Even otherwise either Party shall be entitled to terminate this Agreement by giving 60 days prior written notice to the other party without specifying any reasons for the same.

9. EFFECT OF TERMINATION

9.1 The rights, duties and responsibilities of each Party shall continue to be in full force and effect during the period of notice till the date of termination including the obligation of Second Party to complete the unfinished portion of the Services and the obligation of First Party to settle/pay all dues and/or invoices for the Services completed by the Second Party till the date of termination and/or expenses incurred till the date of termination by the Second Party;

9.2 Neither Party shall be liable to the other pursuant to such termination for compensation, reimbursement or damages on account of the loss of prospective business or profits or on account of expenditures, investments, lease or commitments or for any reason whatsoever arising out of such termination as set forth in clause 8 above, which is consequential in nature.

10. DISPUTE RESOLUTION:

10.1 Parties shall first use their best efforts to settle amicably any dispute arising out of or in connection with this Agreement. Party raising the dispute shall address to the other Party a notice requesting a negotiation of the dispute within ten (10) days of notification. The dispute shall then be referred for resolution between authorized representatives of Parties to be nominated by them who shall attempt to resolve such dispute by negotiation, and document any settlement that may be agreed, within a further period of thirty (30) days.

10.2 If authorised representative are unable to resolve the dispute within thirty (30) days through negotiation, all disputes, controversies and conflicts ("Disputes") arising out of this Agreement or in connection with this Agreement shall be referred for arbitration in terms of the Arbitration and Conciliation Act, 1996 ("Act") or any amendments thereof.



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10.3 The place of arbitration shall be at Ahmedabad and the language used in the arbitral proceedings shall be English. Arbitration shall be conducted by a mutually agreed and appointed sole arbitrator. The arbitral award shall be in writing and subject to the provisions of the Act, shall be final and binding on each Party and shall be enforceable in any court of competent jurisdiction.

10.4 Pending the submission to arbitration and thereafter, till the Arbitrator or the Arbitral Tribunal renders the award or decision, the Parties shall, except in the event of termination of this Agreement or in the event of any interim order/award is granted under the afore-stated Act, continue to perform their obligations under this Agreement.

11. GOVERNING LAW AND JURISDICTION

This Agreement shall be governed exclusively by the laws of India. Court of Ahmedabad shall have exclusive jurisdiction to the extent permitted under the applicable provision of law.

12. AMENDMENT

Any amendment and / or variation to the Agreement shall be mutually agreed by the Parties in writing and executed by or on behalf of each of the Parties hereto.

11. SEVERABILITY

If at any time during the term of the Agreement, all or any of the clauses of the Agreement is or becomes illegal, invalid or unenforceable in any respect or declared null and void or illegal under the applicable laws, the same shall not affect or impair the legality, validity or enforceability of any other provisions of the Agreement.

12. FORCE MAJEURE.

Force Majeure means any unforeseen event or circumstance that is beyond the reasonable control of either Party, which event cannot by exercise of reasonable diligence be prevented or caused to be prevented, and which adversely affects such Party's performance of its duties and obligations or enjoyment of its rights under this Agreement. Neither Party shall be considered in default in the performance of its obligation under the Agreement, if such performance is prevented or delayed on account of war, civil commotion, strike, epidemics, pandemics, accidents, fires, unprecedented floods, earth quake or because of promulgation of any law or regulations by the Government, unforeseen breakdowns, operational and maintenance stoppages at the First Party Manufacturing Plant or the Second Party's Cement Plant or on account of any other Acts of God. At the time of occurrence of a force majeure condition, the affected Party shall give a notice in writing with documentary proof within Fifteen (15) days from the date of occurrence of the force majeure condition indicating the cause of force majeure condition and the period for which the force majeure condition was likely to subsist. The Parties shall resume to the performance of their respective obligations after the force Majeure condition comes to an end and this agreement shall suitably be extended proportionate to the period of such Force Majeure condition. In the event the affected Party is prevented from fulfilling its obligation under the Agreement owing to the force majeure condition continuing for more than Thirty (30) days, both Parties shall consult each other regarding the continuation of the Agreement including early termination as set forth in clause 8 above. Parties shall not be entitled to any kind of damages in case of termination due to such Force Majeure situation.



13. SUSPENSION

Second Party may suspend Services upon prior written notice to First Party, if First Party fails to:

- (a) make timely payment against invoices raised for co-processing charges beyond Sixty (60) days from the normal date of invoice,
- (b) evacuate the rejected consignment of non conforming Waste Material from the Second Party's Cement Plant within the Ten (10) days period as stated in clause 1.4 above or
- (c) deliver Waste Material as per the Delivery schedule set out in Annexure D.

Notwithstanding whatever is contained herein, in case if Parties could not resolve the issue regarding to non evacuation (as afore mentioned in Clause 13), by mutual consultation within 2 days then, Second party shall have option to terminate this agreement forthwith, Such termination shall be without prejudice to any other rights under Law, available to Second Party.

14. INDEMNITY

First Party shall indemnify, defend and hold harmless Second Party and its directors, employees and agents from and against any and all claims, demands, fines, losses, damages, costs, penalties, expenses, actions, suits or proceedings, injuries, monetary liability on account of injury to/ death of any person, costs of response to any governmental inquiry, liability for loss of or damage to property or for loss or damage arising from attachments, liens or claims of materials, men or laborers, and cost of response to Governmental enquiries, reasonable attorney and consulting fees and costs relating to any of the foregoing ("Claims"), arising from First Party's performance of the Agreement or resulting from First Party's acts or omissions or from First Party's tender of Waste Material or from First Party's breach of the Agreement. The foregoing indemnification shall not apply to the extent such Claims are the result of Second Party's gross negligence, willful default, acts or omissions or statutory non compliance or from Second Party's breach of the Agreement.

Second Party shall indemnify, defend and hold harmless First Party and its directors, employees and agents from and against any and all claims, demands, fines, losses, damages, costs, penalties, expenses, actions, suits or proceedings, injuries, monetary liability on account of injury to/ death of any person, costs of response to any governmental inquiry, liability for loss of or damage to property or for loss or damage arising from attachments, liens or claims of materials, men or laborers, and cost of response to Governmental enquiries, reasonable attorney and consulting fees and costs relating to any of the foregoing ("Claims"), arising from Second Party's performance of the Agreement or resulting from Second Party's acts or omissions or from Second Party's breach of the Agreement. The foregoing indemnification shall not apply to the extent such Claims are the result of First Party's gross negligence, willful default, acts or omissions or statutory non compliance or from First Party's breach of the Agreement.

15. NON WAIVER

Any delay or omission on the part of each Party in exercising any rights provided under applicable laws or under the Agreement shall not impair such rights or operate as a waiver thereof. The partial exercise of any right provided under applicable laws or under the Agreement shall not preclude any other or further exercise thereof or the exercise of any other rights under the Agreement.



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16. VALIDITY

If at any time during the term of the Agreement, all or any of clause(s) of the Agreement is or becomes illegal, invalid or unenforceable in any respect under the applicable laws, the same shall not affect or impair the legality, validity or enforceability of any other provisions of the Agreement.

17. ASSIGNMENT

Neither Party shall have the right to assign or transfer its rights and obligations under the Agreement to any third party or person without the prior written consent of the other Party.

18. SURVIVAL

Upon termination or expiry of the Agreement Clauses 3 (Service Charges and Payment Terms), Clauses 4 (Taxes and Duties), Clauses 5 (Statutory Compliances), 6 (Confidentiality of Information), 9 (Effects of Termination), 14 (Indemnity) and 20 (Jurisdiction) will survive such termination or expiry and continue to bind the Parties.

19. NOTICE

Unless otherwise provided in the Agreement, any notice, report or other communications given or made under or in connection with the matters contemplated by or arising from the Agreement, shall be deemed to have been duly given or made if sent by personal delivery or registered post or speed post or by facsimile transmission or upon receipted delivery at the address of the relevant Party at the addresses mentioned above.

20. ANTI BRIBERY & CORRUPTION DIRECTIVES (ABCD)

APSEZL is aware that ACL has instituted a whistleblower policy to promote the highest standards of professionalism, honesty, integrity and ethical behavior within the organization. APSEZL declares that it has not paid or agreed to pay any favor either in cash or kind to any of the officials of ACL, either directly or indirectly to secure this Agreement and further undertakes to promptly inform ACL if any such demand is made in future by any officials either directly or indirectly. APSEZL is also aware that if it is found indulged in any of fraudulent, unfair or unethical practices, APSEZL shall be liable for such action as per the prevailing law including termination of this Agreement by concurrent notice. Please see Annexure – I in this regard.

21. RELATIONSHIP OF PARTIES

Nothing contained in the Agreement shall be construed as the engagement of Second Party as an agent or partner of First Party. The relationship between the Parties shall be principal to principal, it being clearly understood that it is a "contract for services" and not a "contract of services" and does not create and shall not be deemed to create any partnership, joint venture or a principal agent relationship between the Second Party and First Party. Further First Party shall not be entitled to by act, word, deed or otherwise make any statement on behalf of Second Party or in any manner bind Second Party or hold out or represent that Second Party is representing or acting as agent or partner of the First Party.

22. NON EXCLUSIVE ENGAGEMENT

First Party hereby grants to Second Party a non-exclusive right, on the terms and conditions contained herein, to provide the Services. Nothing herein contained shall prevent or prohibit First Party from engaging other Parties for the provision of the Services. It is clearly understood between the Parties hereto that Second Party shall also on their part be at liberty to



be engaged by other manufacturers who generate waste material in the process of manufacturing finished products for the provision of the Services.

23. HEADINGS

The paragraph headings contained in the Agreement are for the convenience of the Parties and shall not affect the meaning and interpretation of the Agreement.

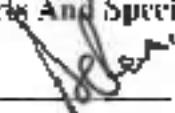
24. ENTIRE AGREEMENT

The Agreement along with its annexure embodies the entire understanding between the Parties hereto and supersedes all previous correspondence, agreements and understanding, if any. This agreement shall be executed simultaneously in Two (2) counterpart originals, but shall, nevertheless together constitute one and the same instrument.

IN WITNESS WHEREOF this Agreement is executed in two counterparts on the day and year first above written. Each Party hereto shall preserve one counterpart of the Agreement.

SIGNED AND DELIVERED for and on behalf of

Adani Ports And Special Economic Zone Limited, by the hand of its authorized signatory,



Sh. Avinash Rai (CEO)



in the presence of:

1. 

Signature of Witness 1,

Chiranjit Rajput
(Name of Witness 1)

2. 

Signature of Witness 2,

Dhanesh Tank
(Name of Witness 2)

SIGNED AND DELIVERED for and on behalf of

Ambuja Cements Limited, by the hand of its authorized signatory,





S. RAMARAO

in the presence of:

1. _____
Signature of Witness 1,

(Name of Witness 1)

2. _____
Signature of Witness 2,

(Name of Witness 2)



ANNEXURE A

Results of analysis of samples sent by First Party to R&D of Second Party

1. Waste Material Specifications: Waste Materials (as received)

Components	Contaminated Cotton Waste	Pig Waste	ETP Sludge	Sorted MSW
% Moisture	6.4	15.86	6.65	7.22
NCV (Kcal/Kg) (GLOB)	4810	5522	2568	4133
% S	0.68	0.25	2.79	0.012
% Cl	0.87	0.21	0.39	0.65

Note:

- Waste should be properly sealed and packed in bags as mentioned under Clause 1.2 (Packaging and labeling herent).
- Waste should be consistent in terms of quality and similar to the samples sent for testing to our lab.
- The above specified values other than moisture content can vary within the +/- 10 % range.



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ANNEXURE B
List of Banned Items

Waste Material dispatched by First Party's Manufacturing Plant to the Second Party's Cement Plant shall not contain following items that are in the banned item list of Second Party for Co-processing.

- Radioactive waste
- Asbestos-containing waste
- Explosives and ammunition / weapons
- Anatomical medical waste
- Electronic fraction of electrical and electronic waste (e-waste)
- Whole batteries as a targeted material stream
- Waste of unknown or unpredictable composition, including unsorted municipal waste

ANNEXURE C

Format for labeling of the Hazardous and other Waste bags/individual containers

FORM B
[See rules 17 (1) and 18 (2)]

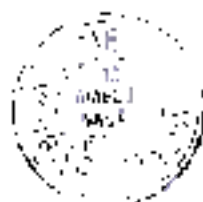
LABELLING OF CONTAINERS OF HAZARDOUS AND OTHER WASTE

Handle with care

Waste category and characteristics as per Part C of Schedule II and III of these rules	Incompatible wastes and substances
Total quantity	Date of storage
Physical State of the waste (Solid/Semi-solid/Liquid)	
Sender's name and address	Receiver's name and address
Phone	Phone
E-mail	E-mail
Tel. and Fax No.	Tel. and Fax No.
Contact person	Contact person
In case of emergency please Contact	

Note:

1. Background colour of label - fluorescent yellow.
2. The word, 'HAZARDOUS WASTES' and 'HANDLE WITH CARE' to be prominent and written in red, in Hindi, English and in vernacular language.
3. The word 'DANGER WASTES' to be written prominently in orange, in Hindi, English and in vernacular language.
4. Label should be of non-washable material and weather proof.



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Quantity & Delivery Schedule

Contaminated Cotton Waste : 150 MTPA
 Pig Waste : 15 MTPA
 ETP Sludge : 10 MTPA
 Sorted MSW : 450 MTPA

In case of any change or modification required in the agreed monthly delivery schedule of a particular month by either party, the same shall be brought to the notice of other party at least seven days in advance or as mutually agreed.



ANNEXURE E

Guidelines for Transportation of Hazardous Waste**

First Party shall ensure the following during Transportation of the Waste material:

1. Transport Vehicle used for transporting the Waste Material should have valid authorization for transportation.
2. Transporter /driver shall be licensed for collection and transportation of the Waste Material
3. Properly sealed and labeled containers/bags of the Waste Material should only be loaded into the Transport vehicle and there should not be any indications of potential hazards (e.g. elevated temperature, barrel expansion, smoke, spillage, leaks);
4. Transport vehicle should be clean, fit for use and all safety equipment should be operational and easily accessible.
5. Transport vehicle used for transportation of waste material shall be marked with an emergency information panel and should be easily identifiable (number plate)
6. Only the compatible waste materials should be transported together
7. Transporter / driver shall carry 4/5 (Four/Five as the case may be) copies of manifest and shall be guided on the proper movement of the manifest documents.
8. Transporter/driver should be provided with relevant information in Form 11 (Transport Emergency (TREM) Card) of Hazardous and other Wastes (Handling and Transboundary Movement) Rules 2016, regarding the Hazardous nature of the waste and measures to be taken in case of any emergency
9. Logistics should be clearly defined for minimizing OH & safety risks
10. All relevant legal requirements for transportation should be fulfilled
11. Suitable specific emergency response procedures / crisis management plan and equipment should be in place and driver and cleaner should be trained accordingly.

*** Please note that the above mentioned Guidelines for Transportation of Waste Material does not relieve First Party from the applicable statutory provisions and regulations relating to Transportation of Hazardous Waste such as Motor Vehicles Rules, 1989 and CPCB guidelines for Transportation of hazardous waste.*



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ANNEXURE F

Protocol for Receipt of Waste Material (Hazardous waste)

The following procedures shall be followed when receiving Waste Material at the Cement Plant of Second Party:

- Transporter will report to the Second Party's security gate for delivery of the Waste Material at storage area(s) of Second Party's designated Cement Plant.
 - Second Party's security officer shall inform the concerned officer of the designated Cement Plant.
 - Second Party's Cement Plant officer will undertake following activities:-
- (a) Receive all relevant documents from the First Party's Transporter including:
- (i) Delivery document
 - (ii) Certificate from the First Party specifying conformance to the waste specifications.
 - (iii) Invoice indicating zero payment by second party
 - (iv) Health & Safety Data Sheet of each of the material
 - (v) Manifest Form (7-copies as the case may be) and other necessary documents as per the statutory requirements.
 - (vi) Any other document mutually agreed between the parties.
- (b) Second Party shall arrange and record the weight of the Transport vehicle on the weight bridge installed at the plant before and after unloading of the Waste Material at the designated storage area.
- (c) Second Party shall make necessary arrangements for unloading of the Waste Material at the designated storage area(s) and shall arrange to store the consignment of Waste Material the designated storage area, as per the date on which the consignment is delivered to the cement plant and shall also record the no. of bags, date of delivery, consignment no., truck no. etc. in the inventory sheet as set out in Annexure H attached to the Agreement.
- (d) Second Party shall arrange to conduct inspection and sampling of the Waste Material as required and report to the First Party whether the Waste Material is conforming to specifications list in Annexure A and Annexure B with in eight (8) days of receipt of Waste Material.
- (e) In case Waste Material is not properly sealed/ packed as set out in clause 1.2 (Packaging/labeling), Second Party shall inform the same to First Party and both the parties shall discuss and arrive at solution for safe handling and disposal of waste material.
- (f) Second Party shall keep the storage area locked with appropriate surveillance by the security.
- (g) To attend any emergency situation, the Second Party shall maintain a copy of the risk assessment and crisis management plan with its security officer and also with its concerned officer.
- (h) Second Party shall ensure the proper movement of the manifest form at each stage as set out in Hazardous and Other Wastes (Management & Transboundary Movement) Rules 2016.
- (i) Second Party shall submit returns to the Authorities in the Form 4 as set out in Hazardous and Other Wastes (Management & Transboundary Movement) Rules 2016 and the format for the same is attached with this Agreement as Annexure J.



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ANNEXURE C
(Health & Safety Data Sheet)
Contaminated Cotton Waste

Geocycle		Customer / Waste Qualification Form		HEALTH & SAFETY	
NOTE: It is recommended to fill all sections of this document. Some items may not be applicable to all wastes. If not applicable, indicate this appropriately.					
Designation: Contaminated Cotton & Plugs		Industry of origin: S&P & Ports (Terminal)		Safety data sheet:	
Availability: <input checked="" type="checkbox"/> Not available					
Physical Characteristics					
Probability of being a Health hazard exceeding the Occupational Exposure Limits for a specific Route of Entry					
Probability of exceeding OEL	High		Medium		Low
	Extremely immediately dangerous		Unlikely, but possible		Considerable, but very unlikely
By eye contact	Low	Not Applicable	Not Applicable	Not Applicable	Not Applicable
By skin contact	Low	Not Applicable	Not Applicable	Not Applicable	Not Applicable
By inhalation	Low	Not Applicable	Not Applicable	Not Applicable	Not Applicable
By ingestion	Low	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Probability of hazardous reactions					
with air	Formation of Toxic vapor	Ignition could occur	Explosion could occur	Polymerization could occur	
At 25°C/77°F	Low	Low	Low	Not Applicable	
At 100°C/212°F	Low	Low	Low	Not Applicable	
At 200°C/392°F	Low	Low	Low	Not Applicable	
At 300°C/572°F	Low	Low	Low	Not Applicable	
At 400°C/752°F	Low	Low	Low	Not Applicable	
Other	Not Applicable	Not Applicable	Not Applicable	Not Applicable	
Remarks: The material is cotton clothes contaminated with oil. It is general waste and harmful to eyes, skin and if inhaled. The material is mild alkaline in nature.					
First Aid Measures					
Appropriate measures	If inhaled: Move to fresh air. If not breathing, give artificial respiration.				
Inappropriate measures	Do not use mouth-to-mouth respiration.				
Available media	See relevant safety data sheet for COSH, PPE, and DGP info.				
Specific first aid instructions	None.				
Spill/Leakage Response					
Containment measures	Clean up with absorbent material.				
Preventive measures	Clean up spillage in bags with absorbent.				
Other preventive measures	See relevant safety data sheet for COSH, PPE, and DGP info.				
Control measures	See relevant safety data sheet for COSH, PPE, and DGP info.				
Control	<input checked="" type="checkbox"/> Under 24 hrs	<input checked="" type="checkbox"/> Eye Protection	<input checked="" type="checkbox"/> Safety glasses	<input checked="" type="checkbox"/> Respiratory	<input checked="" type="checkbox"/> Other
Exposure	<input checked="" type="checkbox"/> 100% gloves	<input checked="" type="checkbox"/> Hand	<input checked="" type="checkbox"/> Foot	<input checked="" type="checkbox"/> Other	<input checked="" type="checkbox"/> Other
First Aid					
Appropriate measures	Wash with plenty of water for 15 minutes. If ingestion persist consult physician immediately. Remove contaminated clothing, wash it with soap and running water. If skin contact consult the physician immediately. If the person has a fresh wound, if respiratory discomfort persist consult physician immediately. If ingested consult the physician immediately.				
Inappropriate measures	Do not use mouth-to-mouth respiration.				
To the best of my knowledge, I certify that the waste / RPD delivered to Lafarge Holcim / Geocycle conforms to the above description, and that all information represented by herewith in this profile is accurate and complete.					
Date: 10/01/2020					
Name: _____		Position: _____		Signature: _____	



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Pig Waste












geocycle		WASTE PROFILE		HEALTH & SAFETY	
Waste Name		Pig Waste		Industry of origin	
				Porto & SEZ	
Material safety data sheet					
Available		<input type="checkbox"/> Not available <input type="checkbox"/>			
Hazard identification					
Flammable	<input type="checkbox"/>	Irritant	<input type="checkbox"/>	By eye contact	<input type="checkbox"/>
Corrosive	<input type="checkbox"/>	Harmful	<input type="checkbox"/>	By skin contact	<input type="checkbox"/>
Reactive	<input type="checkbox"/>	Toxic	<input type="checkbox"/>	By inhalation	<input type="checkbox"/>
Respirable	<input type="checkbox"/>	Carcinogen	<input type="checkbox"/>	By ingestion	<input type="checkbox"/>
Comments:					
Personal protection					
Acid resistant clothes		<input type="checkbox"/>	Safety gloves	<input type="checkbox"/>	Safety helmet <input type="checkbox"/>
Full protection mask		<input type="checkbox"/>	Aspirator	<input type="checkbox"/>	Safety Goggles <input type="checkbox"/>
Comments					
Use all mandatory PPE's					
First aid					
In case of eye contact	wash the eyes with water for 15 minutes, and if irritation persist consult the doctor				
In case of skin contact	remove contaminated clothing and wash the area with mild soap and water, if itching/irritation persist consult the doctor				
In case of Inhalation	transfer the person to fresh air, and if respiratory discomfort persist consult the doctor immediately				
In case of Ingestion	consult the doctor				
Any specific Antidote	not any				
Fire instruction					
Extinguisher Type	water/DCP type extinguisher				
Inappropriate measures	not any				
Specific risks / instructions	not any				
Spill instructions					
Emergency contacts	Mr. Kalyan Kothari : 8880015248 :: Mr. H.P. Mawya 8880073044				
Clean-up procedures	collect the material with soft broom in bags				
Recovery procedures	collect the material in bags				
Disposal procedures	co processing in cement kiln				
Contact in urgent cases	as mentioned above				
Transport					
Material code	Transport code		Waste code 3.1		
Comments : This material have good heat value and having more than 100 flash point					



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FTP Sludge

globe		Customer / Waste Qualification Form		HEALTH & SAFETY	
NOTE: It is important to fill all sections of the document. Some parts may be not relevant or not known for a given AT's, indicate this accordingly.					
Instruction		All cells, with drop down menu, Y, and relevant checkboxes (each in color) need to be completed on this sheet - some data are optional			
Safety data sheet				Available	
Hazard Identification (This info is based on hazard knowledge and not necessarily Legal / regulatory specification)					
					
Flammable	Combustible	Oxidizing	Health hazard	Acute Toxicity	Chronic Toxicity
N	Y	N	N	N	Y
					
Explosive	Corrosive	Environment	Hazardous waste	Explosive	Hazardous waste
N	N	N	N	N	N
Probable Consequence of exposure via a specific Route of Entry					
Consequence	High		Medium		Low
	Disability / One or more fatalities		Serious illness - absent for longer than 7		Minor illness - No absence or absent for 7
By inhalation	Health hazard	Health hazard	Health hazard	Health hazard	Health hazard
By skin contact	Low	Not Applicable	Not Applicable	Not Applicable	Not Applicable
By ingestion	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
By injection	Low	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Probability of hazardous reactions					
At high temperature	Formation of Toxic gases	Ignition / Explosion	Explosion / Explosion	Physical reaction occur	
Under high pressure	Not Applicable	Not Applicable	Not Applicable	Not Applicable	
When exposed to flame	Not Applicable	Not Applicable	Not Applicable	Not Applicable	
When exposed to air	Not Applicable	Not Applicable	Not Applicable	Not Applicable	
When exposed to moisture	Not Applicable	Not Applicable	Not Applicable	Not Applicable	
Other	Not Applicable	Not Applicable	Not Applicable	Not Applicable	
Comments					
Information included in this activity is provided based on information both party representative. This information is purely based on the judgement.					
Fire instruction					
Appropriate measures	To extinguish the fire				
Inappropriate measures	Use of the extinguishing information				
Available fire-fighting equipment	Water				
Special risks / instructions	Exposure to Health				
Spill instructions					
Clean-up procedures	Can be collected easily				
Recovery procedures	Collection in drums / bags / etc.				
Disposal procedures	Disposal in a safe and proper manner				
Control / containment	At all times				
Special Personal protection (additional to standard use PPE)					
Clothing	N	Eye Protection	Y	Gloves	Respiratory
Footwear	N	Hard	Y	Other	N
First aid					
Appropriate measures	First aid kit and first aid kit				
Inappropriate measures	No first aid kit without / working				
Additional information (if any)					
To the best of my knowledge, I certify that the waste / AT's delivered to Latsar / Latsar / Latsar conforms to the above description, and that all information represented by herewith in this profile is accurate and complete.					
Time (hh:mm:ss)	5	41	0	0	0
Name: Elanah Jank	Position: CEO		Signature:		



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Sorted MSW

 WASTE PROFILE		HEALTH & SAFETY			
Waste Name	Mixed Solid	Industry of origin Ports			
Material safety data sheet					
Available	<input checked="" type="checkbox"/>	Not available <input type="checkbox"/>			
Hazard Identification					
Flammable	<input type="checkbox"/>	Irritant	<input type="checkbox"/>	By eye contact	<input type="checkbox"/>
Corrosive	<input type="checkbox"/>	Harmful	<input type="checkbox"/>	By skin contact	<input type="checkbox"/>
Reactive	<input type="checkbox"/>	Toxic	<input type="checkbox"/>	By inhalation	<input type="checkbox"/>
Respirable	<input type="checkbox"/>	Carcinogen	<input type="checkbox"/>	By ingestion	<input type="checkbox"/>
Comments:	The material is sorted paper and plastic waste from dust with no odour. It is general waste and harmful to eyes, skin and if inhaled.				
Personal protection					
Acid resistant clothes	<input type="checkbox"/>	Safety gloves	<input type="checkbox"/>	Safety helmet	<input type="checkbox"/>
Full protection mask	<input type="checkbox"/>	Respirator	<input type="checkbox"/>	Safety Goggles	<input type="checkbox"/>
Comments	Wear PPE like safety gloves, respirator, helmet and safety goggles along with other mandatory PPE as it has moderate odour.				
First Aid					
In case of eye contact	wash with plenty of water for 15 minutes, if irritation persist consult physician immediately				
In case of skin contact	remove contaminated clothing, wash the area with mild soap and running water if itching persist consult the physician immediately				
In case of Inhalation	shift the person to a fresh area, if respiratory discomfort persist consult the physician immediately				
In case of Ingestion	If ingested consult the physician immediately				
Any specific Antidote	not any				
Fire Precautions					
Extinguisher Type	DCP type extinguisher/water type				
Inappropriate measures	not any				
Specific risks / instructions	not any				
Spill Instructions					
EMERGENCY NUMBER	Mr. Shreshth Parmer - 9099082003, Mr. Prashant Saxena - 966566066				
Clean-up procedures	Clean the area with hard broom				
Recovery procedures	collect the material in bags with shovel				
Disposal procedures	co processing in cement kiln				
Contact in urgent cases	as mentioned above				
Transport					
Hazard code	Transport code		Waste code		
Comments: The material is slight acidic in nature having no odour. While Handling wear safety goggles, respirator, safety shoes and helmet.					




ANNEXURE H

Inventory List - Format for maintaining records of Waste Material

FORM 3

[See rules 6(5), 13(7), 14(6), 15(5) and 20(4)]

FORMAT FOR MAINTAINING RECORDS OF HAZARDOUS AND OTHER WASTES

1. Name and address of the facility :
2. Date of issuance of authorisation and its reference number :
3. Description of hazardous and other wastes handled (Generated or Received)

Date	Type of waste with category as per Schedules I, II and III of these rules	Total quantity (Metric Tonnes)	Method of Storage	Destined to or received from

* Fill up above table separately for indigenous and imported waste.

4. Date wise description of management of hazardous and other wastes including products sent and to whom in case of recyclers or pre-processor or utiliser.
5. Date of environmental monitoring (as per authorisation or guidelines of Central Pollution Control Board):

Signature of occupier

Date

Place.....



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ANNEXURE 1

CERTIFICATE OF CO-PROCESSING



Certificate of Co-Processing

Issued To: Adani Ports And Special Economic Zone Limited
Invoice No:.....
Date: 31/05/2020

This is to certify that we have taken receipt of the following quantities of Contaminated Cotton Waste, Pig Waste & ETP Sludge, Sorted MSW sent by Adani Ports And Special Economic Zone Limited for Pre and / Or Co-processing in our Cement Kiln during the period 01/05/2020 to 31/05/2020. The same would be safely and completely disposed off within 90 days of receipt and thereafter will not exist.

Waste Name: Contaminated Cotton Waste
Quantity (Tons):

Waste Name: Pig Waste
Quantity (Tons):

Waste Name: ETP Sludge
Quantity (Tons):

Waste Name: Sorted MSW
Quantity (Tons):

Authorized Signatory

Amhuja Nagar Cement works



ANNEXURE J- Format of Form 4

FORM 4

[See rules 6(3), 13(8), 16(6) and 20 (2)]

FORM FOR FILING ANNUAL RETURNS

[To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period April to March]

1. Name and address of facility:
2. Authorisation No. and Date of issue:
3. Name of the authorised person and full address with telephone, fax number and e-mail:
4. Production during the year (product w/co), wherever applicable

Part A. To be filled by hazardous waste generators

1. Total quantity of waste generated category wise
2. Quantity dispatched:
 - (i) to disposal facility
 - (ii) to recycler or co-processors or pre-processor
 - (iii) others
3. Quantity utilised in-house, if any -
4. Quantity in storage at the end of the year -

Part B. To be filled by Treatment, storage and disposal facility operators

1. Total quantity received -
2. Quantity in stock at the beginning of the year -
3. Quantity treated -
4. Quantity disposed in landfills as such and after treatment -
5. Quantity incinerated (if applicable) -
6. Quantity processed other than specified above -
7. Quantity in storage at the end of the year

Part C. To be filled by recyclers or co-processors or other users

1. Quantity of waste received during the year -
 - (i) domestic sources
 - (ii) imported (if applicable)
2. Quantity in stock at the beginning of the year -
3. Quantity recycled or co-processed or used -
4. Quantity of products dispatched (wherever applicable) -
5. Quantity of waste generated
6. Quantity of waste disposed
7. Quantity re-exported (wherever applicable)
8. Quantity in storage at the end of the year -

Signature of the Occupier or Operator of the disposal facility

Date.....

Place.....



ANNEXURE - K
Health and Safety Policy of ACL



**Ambuja
Cement**



HEALTH & SAFETY POLICY

Ambuja Cements Limited is an industry leader in the building materials industry.

We conduct our business in a manner that creates a healthy and safe environment for all stakeholders - our employees, contractors, communities and customers - built on a sound health and safety culture.

Health and Safety is our core value. We believe in visible leadership and personal accountability for Health and Safety at all levels and throughout our organization.

Nothing we do is worth getting hurt for.

Our Commitment

We will:

- Conduct our business with a goal of zero harm.
- Provide safe, healthy and secure work conditions for employees and contractors.
- Maintain a global Health and Safety Management System designed to continuously improve our performance and actively minimize risk in our business.
- Comply with applicable legal, regulatory, industry and corporate requirements.
- Communicate openly with all stakeholders on relevant health and safety issues.
- Empower all employees and contractors to stop any unsafe work.

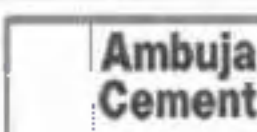

Date of Issue: 21st February 2020

Neeraj Akhoury
Neeraj Akhoury
Managing Director & CEO





H&S Rules

	
Health & Safety Rules	स्वास्थ्य और सुरक्षा नियम
<p>Rule 1 I assess and control risks before starting any task.</p> <p>Rule 2 I only perform activities for which I am authorized.</p> <p>Rule 3 I never override or misuse health and safety devices, and I always use the required PPE.</p> <p>Rule 4 I do not work under the influence of alcohol or drugs.</p> <p>Rule 5 I report all incidents.</p> <p>Living by these rules is a condition of employment.</p>	<p>नियम 1 काई भी कार्य शुरू करने से पहले मैं जोखिमों का आकलन और नियंत्रण करता/करती हूँ।</p> <p>नियम 2 मैं केवल उन गतिविधियों को करता/करती हूँ जिनके लिए मैं अधिकृत हूँ।</p> <p>नियम 3 मैं कभी भी स्वास्थ्य और सुरक्षा संबंधी उपकरणों का उत्प्रेषण या दुरुपयोग नहीं करता/करती हूँ तथा सदैव आवश्यक PPE (मिनीमम सुरक्षा संबंधी उपकरण) हमेशा ही पहनता/पहनती हूँ।</p> <p>नियम 4 हैं किसी भी शराब या मादक पदार्थों के लहों में कार्य नहीं करता/करती हूँ।</p> <p>नियम 5 मैं सभी हादसों की रिपोर्ट करता/करती हूँ।</p> <p>इन नियमों का सक्रिय रूप से पालन करना रोजगार की एक शर्त है।</p>

Ambuja Cement

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ANNEXURE – I.

Anti Bribery & Corruption Directives (ABCD) of Ambuja Cement Limited

1. Prohibition of Corrupt Payments

First Party affirms that it has not and agrees that it will not (in connection with Services under this Contract or in connection with any other business involving Second Party) make, offer, promise, agree to make or authorize any payment or transfer of anything of value, directly or indirectly to:

- (i) any Government Official (defined hereunder);
- (ii) any political party, party official or candidate;
- (iii) any person while knowing or having reason to know that all or a portion of the value will be offered, given or promised, directly or indirectly, to anyone described in items (i) or (ii) above;
- (iv) any owner, director, employee, representative/agent of any actual/potential customer of Second Party;
- (v) any director, employee, representative or agent of Company or any of its affiliates; or
- (vi) any other person or entity if such payment or transfer would violate the laws of the country in which it is made or the FCPA or the laws of any other relevant jurisdiction as applicable.

It is the intent of the parties that no payments or transfers of value shall be made which have the purpose or effect of public or commercial bribery, acceptance of or acquiescence in extortion, kickbacks or other unlawful or improper means of obtaining business or any improper advantage.

2. Anti-Corruption Policy

First Party acknowledges that it has been provided with a copy of Second Party's Anti-Bribery and Corruption Directive, confirms its understanding of the directives established by that document, and agrees to comply with that policy in connection with its work for Company.

3. Audit Rights

Second Party shall be allowed reasonable access to First Party's books, records and other documentation related to this Contract or First Party's transaction with Company and shall have the right to audit First Party on a periodic basis.

4. Cooperation on Disputes

First Party shall cooperate with Company in regard to any inquiry, dispute or controversy related to a suspected or alleged violation of the Foreign Corrupt Practices Act (FCPA), if applicable, Anti Bribery & Corruption Directive (ABCD) and all the applicable related statutory compliances in which Second Party may become involved and of which First Party may have knowledge. Such cooperation shall include disclosure of relevant documents and financial information, and interviews of First Party's personnel. Such obligation shall continue after the expiration or termination of this Contract.

5. Use of Third Parties (Sub-Contractor)

First Party shall not use any other party, individual or entity to provide any part of the Services that the First Party is required to provide under this Contract, without the express prior written approval of Second Party.

First Party hereby affirms that it shall obtain an assurance from each of such Sub-Contractors that he/she will comply with all the applicable statutory compliances, FCPA, if applicable, Second Party's Code of Conduct and the ABCD, and will take no action that might cause



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Second Party to be in violation of such laws and policies. All contracts/agreements between First Party and Third Parties will be subject to review by Second Party. Any subcontracting third party is subject to due diligence under Second Party's due diligence procedures before being approved.

Notwithstanding whatever is contained herein Second Party shall not have privity with such Sub-Contractor(s) and shall not in any way be responsible to such Sub Contractor(s) or their activities.

6. Termination in case of violation

Notwithstanding any other provision of this Contract, this Contract shall terminate immediately and without notice, for cause, and shall become null and void, without effect or further liability or obligation on the part of Second Party, upon the occurrence of any of the following circumstances:

1. Violation of Law: This Contract, the relationship created hereby or the performance of any service by First Party hereunder is determined by Second Party or by a competent authority of the United States or India to be in violation of or contrary to the TCPA, if applicable, or any law, decree, rule, order, regulation or prohibition of India:

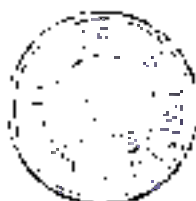
2. Corrupt Payments: First Party's representations, warranties, and covenants in connection with the ABCD are inaccurate or misleading, or have been breached, or Second Party learns of circumstances that give it reason to believe that such representations, warranties and covenants are or may be inaccurate, misleading, or breached. In any such case no further amounts shall be due to First Party pursuant to this Contract, First Party shall not be entitled to receive, and hereby waives rights to, any termination payment or compensation of any kind because of termination or nonrenewal of this Contract, and First Party agrees that any enhancements in the value of First Party's goodwill as a result of its relationship with Second Party will inure to the benefit of Second Party.

7. Annual Certification and Agreement to Report Violations

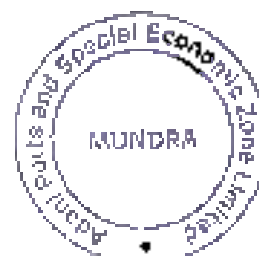
First Party agrees that it will, at the request of Second Party, and at least annually, certify in the below provided format (Format Of Annual Certification As Per The Anti-Bribery And Corruption Directive of Ambuja Cements Limited) a that it has not, and to its knowledge no other person, including but not limited to every owner, director, employee, representative and agent of First Party has made, offered to make, agreed to make, or authorized any payment, loan, donation or gift of money or anything else of value, directly or indirectly, to or for the benefit of any Government Official, political party, party official or candidate, in order to obtain or retain business, or secure any improper advantage. First Party further agrees that, if it should learn of information regarding any such actual or suspected payment or offer in connection with Second Party's business, First Party will immediately contact us at email: ecf@ethicalview.com or toll free helpline 1800 209 1005 or Online: www.integrity.lafargeholcim.com fax - 91 (22) 66459796 or post box no. 25, HO Pune 411001 of such knowledge or suspicion.

8. Definition - (Government Official

"Government Official" means any officer or employee of any government or any department, agency or instrumentality thereof, or of any government-owned or government-controlled corporation or any public international organization, or any person acting in an official capacity for or on behalf of any such government or department, agency, instrumentality, corporation or a public international organization.



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**FORMAT OF ANNUAL CERTIFICATION AS PER THE ANTI-BRIBERY AND
CORRUPTION DIRECTIVE OF AMBULIA CEMENTS LIMITED**

The undersigned hereby acknowledges:

- Second Party has established and implemented the Anti-Bribery and Corruption Directive, together with internal controls reasonably designed to achieve compliance with the applicable laws;
- The undersigned has received, read, and understands Second Party's ABC Directive;
- The undersigned agrees, unconditionally, to comply with all the terms and conditions of Second Party's ABC Directive and with the laws and regulations of the country in which the undersigned operates; and
- The undersigned understands that violation of Second Party's ABC Directive may result in termination of the undersigned's business relationship with Second Party and potential criminal prosecution.

Signature

Printed Name



[Handwritten signature]



CERTIFICATE OF REGISTRATION



DISTROMED KUTCHH SERVICES PVT. LTD.

Common Bio Medical Waste Treatment Facility

Office : 3-Swaminarayan Vanijya Sankul, Nr. Divya Bhaskar Office, Hospital Road, Bhuj (Kutchh) - 370 001.

Cell : 99251 26126 E-mail : distromedkth14@gmail.com

Facility : Survey No. 42/1/1, Village : Ratiya, Ta. & Dist.: Bhuj (Kutchh).

**FACILITY PROVIDER FOR TREATMENT AND
DISPOSAL OF BIO MEDICAL WASTE**

Authorised by **Gujarat Pollution Control Board**

Is hereby Issued to :

Hosp./Dr. ADANI PORTS AND SPECIAL ECONOMIC ZONE LTD.
MUNDRA DIST : KUTCH

Registration No. : KTH-356

Validity up to : 01/04/2020 TO 31/03/2021

Bio Medical Waste collection, transportation, treatment and disposal as per

Notification No. : So-630 Dated : 20/07/1998 by Ministry of

Forest & Environment - Govt. of India

For, **DISTROMED KUTCHH SERVICES PVT. LTD.**

This is conditional certificate : On non payment of disposal charge, this certificate will be invalid

CERTIFICATE OF REGISTRATION



DISTROMED KUTCHH SERVICES PVT. LTD.

Common Bio Medical Waste Treatment Facility

Office : 3-Swaminarayan Vanijya Sankul, Nr. Divya Bhaskar Office, Hospital Road, Bhuj (Kutchh) - 370 001.

Cell : 99251 26126 E-mail : distromedkth14@gmail.com

Facility : Survey No. 42/1/1, Village : Ratiya, Ta. & Dist.: Bhuj (Kutchh).

**FACILITY PROVIDER FOR TREATMENT AND
DISPOSAL OF BIO MEDICAL WASTE**

Authorised by **Gujarat Pollution Control Board**

Is hereby Issued to :

Hosp./Dr. ADANI PORTS AND SPECIAL ECONOMIC ZONE LTD. WEST BASIN
MUNDRA DIST : KUTCH

Registration No. : KTH-390

Validity up to : 01/04/2020 TO 31/03/2021

Bio Medical Waste collection, transportation, treatment and disposal as per

Notification No. : So-630 Dated : 20/07/1998 by Ministry of

Forest & Environment - Govt. of India

For, **DISTROMED KUTCHH SERVICES PVT. LTD.**

This is conditional certificate : On non payment of disposal charge, this certificate will be invalid

Annexure – 12

Chiragsing Rajput

From: Chiragsing Rajput
Sent: Thursday, May 13, 2021 6:08 PM
To: rdwcr-cgwb@nic.in
Cc: Bhagwat Swaroop Sharma; Azharuddin Kazi; Snehal Jariwala; Mahendra Kumar Ghritlahre (Mahendra.Ghritlahare@adani.com)
Subject: Submission of Ground Water Monitoring Report_APSEZ, Mundra
Attachments: Submission of Ground Water Monitoring Reports_APSEZ, Mundra.pdf

Kind Attn: Shri Anoop Nagar, Regional Director,
CGWB, West Central Region, Ahmedabad

Dear Sir,

As part of the compliance requirement for our project activities at Adani Ports and SEZ Ltd., Mundra, we hereby submit the analysis results of ground water samples taken from the project site through bore hole. This is for your records and suggestions, if any.

Thanks & Regards,
Chiragsing Rajput
Environment Cell | Adani Ports & Special Economic Zone Ltd.
Mob +91 9687678443 | Ext: 52132 | chiragsing.rajput@adani.com | www.adani.com
Adani House, 1st Floor, P.O. Box 1, Mundra, Kutch - 370 421, Gujarat, India.





APSEZL/EnvCell/2021-22/021

Date: 12.05.2021

To,
Central Ground Water Board West Central Region
Swami Narayan College Building,
Shah Alam Tolnaka,
Ahmadabad,
Gujarat – 380022.

Kind Attn: Shri Anoop Nagar, Regional Director

Sub: Intimation regarding monitoring of ground water level & quality through bore hole

Dear Sir,

With reference to above stated subject, Adani Ports and Special Economic Zone Limited (APSEZ) located at Village: Mundra, Tal. Mundra, Dist. Kutch – 370421 would like to clarify you as below.

APSEZ has constructed 02 nos. of bore holes within multi-product SEZ for regularly monitoring of ground water level and its quality. Locations of bore holes are as below.

Sr. No.	Location	Latitude	Longitude
1	Nr. Dhrub Railway Station	22°48'07.3"N	69°39'85.6"E
2	Nr. Common Effluent Treatment Plant	22°48'64.0"N	69°42'39.0"E

Ground water monitoring is being carried out at every six month by NABL accredited and MoEF&CC recognized agency namely M/s. Pollucon Laboratories Pvt. Ltd., Surat since 2015. Latest ground water monitoring reports are enclosed here as **Annexure – A** for you reference.

APSEZ is requesting you to kindly consider above mentioned facts and provide your opinion regarding the same.

Thanks & Regards,
Adani Ports and Special Economic Zone Limited

Bhagwat Swaroop Sharma
Head – Environment

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 5110
info@adani.com
www.adani.com

"HALF YEARLY ENVIRONMENTAL MONITORING REPORT"

FOR



**BORE HOLE WATER
ADANI PORTS AND SPECIAL ECONOMIC ZONE LIMITED
TAL: MUNDRA, KUTCH, MUNDRA – 370 421**

**MONITORING PERIOD:
OCTOBER 2020 TO MARCH 2021**

PREPARED BY:



POLLUCON LABORATORIES PVT.LTD.

**PLOT NO.5/6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY,
OLD SHANTINATH SILK MILL LANE, NEAR GAYTRI FARSAN MART,
NAVJIVAN CIRCLE, UDHANA MAGDALLA ROAD, SURAT-395007.
PHONE/FAX – (+91 261) 2455 751, 2601 106, 2601 224.
E-mail: pollucon@gmail.com Web: www.polluconlab.com**

TC - 5945

ISO 9001:2015

ISO 14001:2015

ISO 45001:2018

**POLLUCON**

LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts
Cleaner Production / Waste Minimization Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

RESULTS OF BORE HOLE WATER

SR. NO	TEST PARAMETERS	UNIT	RESULTS	TEST METHOD
			OPP. DRUB RAILWAY STATION	
	Sampling Date		17/12/2020	
1	pH	--	7.64	IS3025(P11)83Re.02
2	Salinity	ppt	28	APHA 2520B
3	Oil & Grease	mg/L	Not Detected	APHA(22ndEdi)5520D
4	Hydrocarbon	mg/L	Not Detected	GC/GC-MS
5	Lead as Pb	mg/L	Not Detected	AAS APHA(22ndEdi)3111 B
6	Arsenic as As	mg/L	Not Detected	AAS APHA 3114 B
7	Nickel as Ni	mg/L	Not Detected	AAS APHA(22ndEdi)3111 B
8	Total Chromium as Cr	mg/L	0.03	AAS 3111B
9	Cadmium as Cd	mg/L	Not Detected	AAS APHA(22ndEdi)3111 B
10	Mercury as Hg	mg/L	Not Detected	AAS APHA- 3112 B
11	Zinc as Zn	mg/L	0.56	AAS APHA(22ndEdi)3111 B
12	Copper as Cu	mg/L	Not Detected	AAS APHA(22ndEdi)3111 B
13	Iron as Fe	mg/L	0.32	AAS APHA(22ndEdi)3111 B
14	Insecticides/Pesticides	mg/L	Absent	GC/GC-MS
15	Depth of Water Level from Ground Level	meter	2.3	--

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

**RESULTS OF BORE HOLE WATER**

SR. NO	TEST PARAMETERS	UNIT	RESULTS	TEST METHOD
			NEAR CETP MAIN GATE	
	Sampling Date		17/12/2020	
1	pH	--	8.07	IS3025(P11)83Re.02
2	Salinity	ppt	2.84	APHA 2520B
3	Oil & Grease	mg/L	Not Detected	APHA(22 nd Edi)5520D
4	Hydrocarbon	mg/L	Not Detected	GC/GC-MS
5	Lead as Pb	mg/L	0.038	AAS APHA(22 nd Edi)3111 B
6	Arsenic as As	mg/L	Not Detected	AAS APHA 3114 B
7	Nickel as Ni	mg/L	Not Detected	AAS APHA(22 nd Edi)3111 B
8	Total Chromium as Cr	mg/L	0.027	AAS 3111B
9	Cadmium as Cd	mg/L	Not Detected	AAS APHA(22 nd Edi)3111 B
10	Mercury as Hg	mg/L	Not Detected	AAS APHA- 3112 B
11	Zinc as Zn	mg/L	0.31	AAS APHA(22 nd Edi)3111 B
12	Copper as Cu	mg/L	Not Detected	AAS APHA(22 nd Edi)3111 B
13	Iron as Fe	mg/L	0.2	AAS APHA(22 nd Edi)3111 B
14	Insecticides/Pesticides	mg/L	Absent	GC/GC-MS
15	Depth of Water Level from Ground Level	meter	2.25	--

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

Borehole Water Parameters			
SR. NO.	TEST PARAMETERS	UNIT	MDL
1	pH	--	2
2	Salinity	mg/L	0.5
3	Oil & Grease	mg/L	2
4	Hydrocarbon	mg/L	0.01
5	Lead as Pb	mg/L	0.01
6	Arsenic as As	mg/L	0.001
7	Nickel as Ni	mg/L	0.02
8	Total Chromium as Cr	mg/L	0.025
9	Cadmium as Cd	mg/L	0.002
10	Mercury as Hg	mg/L	0.005
11	Zinc as Zn	mg/L	0.06
12	Copper as Cu	mg/L	0.01
13	Iron as Fe	mg/L	0.1
14	Insecticides/Pesticides	mg/L	0.1



H. T. Shah

Lab Manager




Dr. Arun Bajpai

Lab Manager (Q)

Annexure – 13

ADANI FOUNDATION

Expense Details for Fisherfolk Amenities work in different core areas

Sr.	Details	2016-17	2017-18	2018-19	2019-20	2020-21	TOTAL	AMT IN LACS
Expenditure Details (Amount in Rs.)								
1	Vidya Deep Yojana	2069300	193000	2087000	1771000	110225	6230525	62.31
2	Vidya Sahay Yojana	552580	495000	691000	708000	504336	2950916	29.51
3	Adani Vidya Mandir – Shaping Lives	4200000	4030000	3472000	6434020	1593805	19729825	197.30
4	SENIOR CITIZEN HEALTH CARD	0	8430000	1750000	2975000	1750000	14905000	149.05
5	FINANCIAL SUPPORT TO POOR PATIENTS	4439507	1275000	813000	1296063	763800	8587370	85.87
6	Machhimar Kaushalya Vardhan Yojana	188708	200000	397000	73000	0	858708	8.59
7	Machhimar Sadhan Sahay Yojana	0	0	315000	522000	0	837000	8.37
8	Machhimar Awas Yojana	4592106	1165000	0	2311000	2424016	10492122	104.92
9	Machhimar Shudhh Jal Yojana	2236050	2700000	2038000	1773000	2348300	11095350	110.95
10	Sughad Yojana	1367300	170000	0	192000	30000	1759300	17.59
11	Machhimar Akshay kiran Yojana	860850	100000	68000	0	0	1028850	10.29
12	Machhimar Suraksha Yojana			0	0	0	0	0.00
13	Machhimar Ajivika Uparjan Yojana-Mangroves plantation	1558800	500000	1382000	1400000	1900272	6741072	67.41
14	Bandar Svachhata Yojana	106400	50000	0	0	367000	523400	5.23
15	Cricket league and Cycle Marathon	432000	657119	638000	610800	0	2337919	23.38
16	Sports Material For Children & Youth at Vasahats	197797	0	0	0	0	197797	1.98
17	New Pilot Initiative for Polyculture	398240	160000	0	0	0	558240	5.58
18	New Pilot Initiative for Cage farming Asian Seabass & Lobster	864000	660000	0	0	0	1524000	15.24
19	Sea Weed Culture Project	0	0	0	200000	0	200000	2.00
20	Mangrove Biodiversity Project	0	0	1890000	684000	499210	3073210	30.73
21	Approach road restoration at 9 vasahat					599000	599000	5.99
		24063638	20785119	15541000	20949883	12889964	94229604	942.30

Annexure – 14

7th September 2020

To

Director (Environment) & Member Secretary
Gujarat Coastal Zone Management Authority
Sachivalaya
Gandhinagar

Subject: Cumulative Impact Assessment (CIA) report for Mundra

Reference:

- (1) APSEZ submission of final CIA report to GCZMA vide letter dtd 30.04.2018
- (2) GCZMA Minutes of meeting of 45th GCZMA, held on 04.10.2019

Dear Sir

Inline to the ToR issued by GCZMA vide dtd. 19.12.2014, APSEZ had prepared CIA report, through NABET accredited consultant and submitted to GCZMA on 30.04.2018. Report was presented to GCZMA during 45th GCZMA meeting, held on 4th October 2019 and based on the discussion during the meeting and minutes of meeting published on GCZMA website, it was decided to constitute a subcommittee, who will further verify the report in detail.

In view of above, we are waiting for the further directives from GCZMA, to permit us to present the findings of the CIA report in detail, to the subcommittee, as appointed by GCZMA.

Thank you

Yours sincerely



Shalin Shah

Head - Environment

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

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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 - 382421, Gujarat, India

10th March 2021**To****Director (Environment) & Member Secretary
Gujarat Coastal Zone Management Authority
Sachivalaya
Gandhinagar****Subject:** Cumulative Impact Assessment (CIA) report for Mundra**Reference:**

- (1) APSEZ submission of final CIA report to GCZMA vide letter dtd 30.04.2018
- (2) GCZMA Minutes of meeting of 45th GCZMA, held on 04.10.2019
- (3) APSEZ reminder letter vide dtd. 7th Sept 2020

Dear Sir

Inline to the ToR issued by GCZMA vide dtd. 19.12.2014, APSEZ had prepared CIA report, through NABET accredited consultant and submitted to GCZMA on 30.04.2018. Report was presented to GCZMA during 45th GCZMA meeting, held on 4th October 2019 and based on the discussion during the meeting and minutes of meeting published on GCZMA website, it was directed to constitute a subcommittee to verify the report in detail. A reminder letter for the same, has already been submitted vide dtd. 7th September 2020.

In view of above, we are waiting for the further directives from GCZMA, to permit us to present the findings of the CIA report in detail, to the GCZMA subcommittee.

Thank you

Yours sincerely

**Shalin Shah****Head – Environment & Sustainability**

11.02/3/2021

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Close.

Forests & Environment Dept
Block No. 14, 3th Floor,
New Sachivalaya, Gandhinagar

Annexure – 15

Compliance Report of CIA Study Environment Management Plan

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ESMP	Responsible agency	Timeframe for implementation	Compliance
1	Land Use Change						
1.1	<p>It is predicted that the built up land in the rural areas would increase by an order 50% from the baseline 2015.</p> <p>New settlements near the SEZ area might create slums.</p> <p>Unorganized urban development leading to poor sanitation and</p>	Level - 1	<p>APSEZ has developed two townships (Shantivan and Samudra) presently accommodating 1668 households.</p> <p>Necessary permissions from concerned authorities were already obtained for the development of townships and Associated infrastructure facilities.</p>	<p>The existing townships will be expanded to accommodate about 4 lakh people when the APSEZ is fully developed.</p>	APSEZ	As and when Required	<p>APSEZ has developed two townships (Shantivan and Samudra) accommodating 2180 households and associated infrastructure facilities. Accommodation is made available for all interested employees working within Adani group & SEZ industries. Out of which 89% Occupancies are accommodated within the townships and rest are available for employees working within APSEZ.</p> <p>At present 45 nos. of industries (processing & non-processing) are operating within the SEZ. Township facilities are also made by some of SEZ industries within Mundra town for their employees with basic infrastructure facilities and requirements.</p> <p>Most of the employees working in SEZ industries are residing in Mundra township having all basic requirements and associated facilities.</p> <p>The existing social infrastructure facilities are adequate for present development at APSEZ. The existing townships with associated facilities will be expanded as per requirement.</p> <p>APSEZ has also been granted permission for receiving domestic sewage @ 2.5 MLD from Mundra village (which was earlier discharged in to open area within Mundra region) in to wastewater treatment plant for treatment and disposal. APSEZ has already started receiving of domestic sewage from Mundra, which will abate the poor sanitation and unhygienic condition</p>

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ E SMP	Responsible agency	Timeframe for implementation	Compliance
	proliferation of vectors and disease.						within Mundra region. Total project cost for laying domestic sewage underground pipeline with other associated facilities from Mundra to APSEZ is 362 Lacs .
1. 2	Once the project is fully developed, due to increase in built up land in the APSEZ area, there will be an increase in the storm water runoff from the facility.	Level-1	The study area experiences scanty rainfall less than 400 mm/year. Considering the natural gradient, APSEZ have designed and implemented storm water drains in the existing facility to meet the peak daily rainfall of 440 mm/hr. Hence flooding of water in the neighboring areas is not envisaged.	Technical feasibility study can be carried out to explore the possibility of developing storm water collection ponds to utilize maximum possible storm water runoff for dust suppression in the coal yard areas during non-rainy days.	APSEZ	Technical Study - one time, Implementation - Continual process	<p>Presently, 42% of the total SEZ area (Total Notified SEZ Area 8434.5890 Ha) is developed as per data submitted to the Govt. of India, however on ground level the actual development with infrastructure facilities is only 20%. Based on technical studies, APSEZ has developed adequate storm water facilities that meets with daily demand as per recorded highest rainfall.</p> <p>At present all existing coal yards are designed with drain, for collection of water during water sprinkling and rainfall, which is carried away to dump pond. Supernatant water from dump pond is being collected and used for dust suppression activities or after sedimentation, discharged to sea. Photographs of showing the drain and dump pond has been submitted in along with EC compliance report (Oct 19 to March 20). Analysis of said water discharging in to sea during monsoon season is being carried out (twice in a year during monsoon) through NABL / MoEF&CC accredited laboratory. Analysis report is attached herewith as Annexure – A.</p> <p>During period April 2020 to Sept 2020, the maximum recorded rain fall was 46 mm/hr., however during this compliance period (Oct'20 to Mar'21) there was only 0.8 mm/hr. rainfall observed, which was much less than the design capacity of existing storm water drainage system. So our existing storm water management facility is adequate to handle the storm water runoff from the area. Hence flooding of water in the neighboring areas is not envisaged.</p>
			As per the directions	The	APSEZ,	As and When	Presently there is no Desalination plant, sea water intake and

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ E SMP	Responsible agency	Timeframe for implementation	Compliance
			given in the environmental clearance issued for the proposed Multi-Product SEZ and CRZ clearance for Desalination, sea water intake, outfall facility and pipeline project, the master plan of the project was designed and being implemented without disturbing the natural flow of rainwater in all the seasonal streams.	channel depth in all the natural streams shall be maintained to accommodate peak flood flow during the monsoon and periodical de-silting activities in the natural streams passing through the APSEZ area	District Administration* and Irrigation department	Required	outfall facility developed as part of EC & CRZ clearance of Multiproduct SEZ. The project will be designed and implemented without disturbing the natural flow of rainwater in all the seasonal streams.
1.3	Due to conservation and protection of mangroves in the designated	Positive Impact with ecological benefits	In addition to conservation of the identified 1254 ha mangrove areas around Mundra port and SEZ, APSEZ has taken up large scale mangrove afforestation	APSEZ will continue mangrove afforestation as per the commitment made with	APSEZ	Short Term	<p>APSEZ has carried out mangrove afforestation in 2890 ha. area across the coast of Gujarat till date.</p> <p>No further mangrove afforestation is pending w.r.t. commitment made with concerned regulatory authority for APSEZ, Mundra project.</p> <p>As per study conducted by NCSCM in 2017, mangrove cover in and around APSEZ, Mundra has increased from 2094 Ha to</p>

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ESMP	Responsible agency	Timeframe for implementation	Compliance						
	conservation area, it has been predicted that the current mangrove footprint area would marginally increase in next 15 years due to natural growth. This will enhance the overall biodiversity in the local coastal eco-system.		activities in an area of more than 2800 ha at various locations across the coast of Gujarat state in consultation with various organizations	concerned regulatory authority			<p>2340 ha (as compared between 2011 to 2017). The analysis has shown an overall growth of 246 ha. The cost for said study was INR 3.15 Cr.</p> <p>As a part of GCZMA recommendations and NCSCM mangrove conservation action plan, APSEZ has undertaken following activities.</p> <table><tr><th>Sr. No.</th><th>Recommendations</th><th>Compliance</th></tr><tr><td>1.</td><td>Mangrove mapping and monitoring in and around APSEZ</td><td><ul style="list-style-type: none">APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island.As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%.This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction.NCSCM Report of the same is attached as Annexure – 2.</td></tr></table>	Sr. No.	Recommendations	Compliance	1.	Mangrove mapping and monitoring in and around APSEZ	<ul style="list-style-type: none">APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island.As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%.This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction.NCSCM Report of the same is attached as Annexure – 2.
Sr. No.	Recommendations	Compliance											
1.	Mangrove mapping and monitoring in and around APSEZ	<ul style="list-style-type: none">APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island.As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%.This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction.NCSCM Report of the same is attached as Annexure – 2.											

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ E SMP	Responsible agency	Timeframe for implementation	Compliance		
									<ul style="list-style-type: none"> The cost of the said study was INR 23.56 Lacs incurred by APSEZ.
							2.	Tidal observation in creeks in and around APSEZ	<ul style="list-style-type: none"> APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM. The observed tidal ranges indicate that the creeks experience normal tidal ranges, adequate for the growth of mangroves. Report of the same is incorporated in NCSCM report attached as Annexure – 2. The cost of the said activity was INR 1.0 Lacs.
							3.	Removal of Algal and Prosopis growth from mangrove areas	<ul style="list-style-type: none"> Algal and Prosopis growth monitoring was done in and around mangrove area and algal encrustation was found in some of the mangrove areas, which has been removed manually. Report of the same is attached as Annexure – 3. The cost of the said activity was INR 1.2 Lacs.
							4.	Awareness of mangroves importance in surrounding communities	<ul style="list-style-type: none"> Adani Foundation – CSR Arm of Adani group has done awareness camps/activities created in the community regarding importance of mangroves during the year 2020-21. Adani Foundation has also provided 6.7 lacs kg Dry Fodder and 11.6 lacs kg Green fodder in 20 villages of Mundra and Anjar Block to support the resource dependent villagers, to avoid their dependency on

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ E SMP	Responsible agency	Timeframe for implementation	Compliance
							<p>mangroves. The expenditure for fodder supporting activities was approx. 120.86 Lacs during last FY 2020-21.</p> <ul style="list-style-type: none"> Village Gauchar land development for the fodder cultivation to made fodder sustain village & Avail green fodder in scarcity phase. With the support of Gauchar Seva Samiti Grassland development in Siracha – 85 Acre & Zarpara – 25 Acre done which resulted in total production of 82 ton. The brief details of the said activities are incorporated in attached CSR Report for the FY 2020-21 attached as Annexure – 4. Other than this dedicated security guard with gate system deployed by APSEZ across the coastal area and no any unauthorized persons allowed within coastal as well as mangrove areas. <p>• The overall cost incurred by APSEZ is INR 146.62 Lacs as a part of mangrove conservation plan.</p> <p>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, during Phase-II (2019-2020) it was 02 ha and during Phase III (2020-2021) it is 01 ha.</p>
1. 4	Development activities along the		Detailed hydro-dynamic modelling and shoreline change prediction	It is recommended to map the	APSEZ	Continual Process	<p>Shoreline assessment study will be conducted in FY 2021-22.</p> <p>However, shore line change study was carried out by M/s. Chola MS, Chennai (NABET accredited consultant) as a part of Water</p>

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	coast might cause certain changes in hydro-dynamic characteristics along the shoreline. Shoreline of any area also can be influenced by storm surges and other natural processes.		for a fully developed APSEZ facility has been studied. The study reveals that the erosion and accretion in the study area at the end of 15th year will be within the designated criteria of ± 0.5 m/year. which reconfirms that the waterfront development activities of APSEZ would pose insignificant impact on the Mundra shoreline.	coastal morphology (Shoreline) at least once in three years			<p>Front Development Project – Expansion EIA study. The summary of the said study are as below.</p> <p>To estimate the shoreline change due to the earlier approved waterfront development plan, a historical shoreline change assessment has been undertaken using the satellite imagery for a period of 2008 to 2018. In order to avoid any major errors in estimating the shoreline, the satellite data for similar tidal condition was considered for 2008, 2013 and 2018. AMBUR Methodology was used to study the historical analysis</p> <p>10km radius stretch of shoreline on either side of the APSEZ project boundary has been considered for assessing the historical shoreline change scenario. The baseline shoreline change assessment depicts the influence of both natural causes and also possible changes in the shore due to various development activities in the study area during the designated period. For the purpose of this study, shoreline on left side of APSEZ is termed as West Side Shoreline and that of the right side as East Side Shoreline for ease of recognition.</p> <p>The maximum accretion and erosion rate of the west side shoreline over a period of 10 years during the year 2008 – 2018 are observed to be 4.78 m/yr and 1.93 m/yr respectively.</p> <p>The maximum accretion and erosion rate of the east side shoreline over a period of 10 years during the year 2008 – 2018 are observed to be 0.5 m/yr and 0.82 m/yr respectively.</p>

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2	Regional Traffic Management Plan						
2.1	The projected traffic data as per the EIA Report of Multi-Product Special Economic Zone, the peak vehicular traffic from the port and SEZ operations (including supporting facilities and colony) could be in the order of	Level-1	As per the master plan of APSEZ, eight artillery roads will be connected to either state highway or national highway for evacuating the goods from APSEZ. None of these roads are passing through settlements, thereby avoiding traffic congestions in the respective villages. The carrying capacity of the eight artillery roads connecting APSEZ is estimated to be about 16,000 PCU/hr as against the envisaged peak traffic volume of 4,500 PCU/hr. Out of eight artillery roads considered in APSEZ master plan, seven roads were	Additional road as per master plan will be built in future based on the overall progress of the project. Currently about 25% of cargo from APSEZ is transported by Rail and the same will be enhanced to 40% when the facility is fully developed in future.	APSEZ	As and When Required	<p>Presently, 42% of the total SEZ area (Total Notified SEZ Area 8434.5890 Ha) is developed as per data submitted to the Govt. of India, however on ground level the actual development with infrastructure facilities is only 20%</p> <p>Existing road/rail/conveyer infrastructure facilities are adequate to evacuate the existing cargo. Further, APSEZ's cargo evacuation through rail / conveyer has increased to 56 %, thereby reducing the usage of road.</p> <p>Additional road facilities will be built as per master plan considering future development.</p> <p>The facilities for transportation of cargo other than road will be enhanced considering future development, which will reduce the traffic volumes on the regional road Network.</p>

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	18,300 and 10,400 vehicles per day respectively. There could be a possible increase in traffic congestions on village-highway intersections and road accidents.		already developed and functional.	This will further reduce the traffic volumes on the regional road network.			
			APSEZ has been imparting Driver Training Programs to all their contractors to enhance awareness on road safety.	APSEZ can undertake technical feasibility of implementing Intelligent Transport System (ITS) for the freight carriers associated with their development activities.	APSEZ & GSRDC*	Long Term	<p>APSEZ is being imparting the regular in-house classroom and on-job training to the all drivers and employees on below topics:</p> <ul style="list-style-type: none"> • Basic induction Training for drivers • ITV Driver Training • ITV Driver Induction for Supervisor • Defensive Driving for LMV & HMTV • Defensive Driving & BBS • Traffic Management & Road Signage • Driving safety training • RORO Driver training • Road Safety • Defensive Driving & Emergency Action Plan • Drivers Responsibilities & Safe driving • Emergency Rescue (Vehicle) Training <p>Approx. 3552 Participants (On roll and contractual manpower) were benefitted from above trainings in FY 2020-21. The same will be continued in future also.</p> <p>APSEZ has also implemented the Remote traffic management system (RTMS) to manage the traffic movements and capturing</p>

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							<p>the violations to further improve the system.</p> <p>Following steps were taken by APSEZ to reduce the accidents.</p> <ul style="list-style-type: none"> ✓ Installation of approx. 100 Nos. of cameras which is being operated at ISCR (Integrated security control room) to monitor & manage the traffic system in APSEZ on real time basis. ✓ Installation of 05 Nos. RTMS - Remote traffic management system (having combination of Radar + OCR camera + LED display board - showing speed limit) to recognize the over speeded vehicles, so that timely capture the same and avoid any road accidents.
3	Water resources Management and sewage treatment & disposal Plan						
3.1	For a fully developed APSEZ facility, water demand will be in the order of 4,30,000 m3/day (430 MLD). APSEZ will be sourcing majority of the water	No-Impact	APSEZ is meeting the current water demand through Narmada water supply scheme and 47 MLD captive desalination plant at site. Necessary water allocation from concerned authorities was obtained and the same will be renewed from time to time as per the directions of state government.	As per the master plan and permissions granted under EC, APSEZ will be developing progressively 4,50,000 m3/day (450 MLD) of desalination plants	APSEZ	As and When Required	<p>Currently there are two fresh water sources available with APSEZ.</p> <p>Desalination Plant – 47 MLD Narmada water through GWIL – 11 MLD (sanctioned capacity).</p> <p>Current water demand for APSEZ along with SEZ industries including Adani Power Plant is around 30 MLD.</p> <p>So presently, these sources are adequate to fulfill the current fresh water requirement of APSEZ.</p> <p>The desalination plant of additional capacities will be installed on modular basis considering future requirement of APSEZ.</p>

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	from the captive desalination plants, which will be developed in progressive manner.			to meet the future demand. Hence stress on regional water resources due to these developmental projects will be less significant.			
3.2	Existing water demand in the Mundra taluk is estimated as 8500 m ³ /day (@55 lpcd) and the potable and sanitation water	Level-2	Adani Foundation has been contributing to various watershed development projects in the Mundra region to enhance ground water resources in the area. Adani Foundation has contributed about Rs. 300 Lakhs so far for the development of 18 check dams.	Adani Foundation is planning to implement the various water resource conservation programs in next ten years under	APSEZ and CGWB*	Long Term	<p>Water needs of APSEZ is being met through existing Desalination Plant of APSEZ and Narmada canal supplied by the GWIL which may be further enhanced on modular basis, At present Ground water is not utilized for any activities of APSEZ.</p> <p>However various works are being carried out by Adani Foundation continuously under Water Conservation Work to achieve water security in Mundra region by Adani Foundation. Following works are carried out as a part of water conservation work since April – 2018.</p> <p>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.</p>

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	needs would increase to 37,000 m ³ /day (@125 lpcd) in future when the area is fully grown into larger municipality due to induced economic growth. Water demand of the local communities is met through Narmada water supply system to some extent, but			various schemes.			<p>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 Government Figures.</p> <p>Our water conservation work is as below.</p> <ul style="list-style-type: none"> A large number of water harvesting structure (18 Nos. of check dams in coordination with salinity department) Ground recharge activities (pond deepening work for more than 52 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 Roof Top Rain Water Harvesting 54 Nos. which is having 10,000 liter storage which is sufficient for one year drinking water purpose for 5 people family. Recharge Bore well 75 Nos which is best ever option to Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which bore well depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar. AF has covered 295 farmers and 1422 acre drip irrigation area in last two years which is remarkable for water conservation in first phase—in this phase we have covered 66 farmers and 360 Acre land for the same. Total 968 Farmers and 5626 Acre Drip since 2011-12 to 2020-21. <p>Adani foundation has spent approx. INR 4554.45 lakhs from April – 2018 to Mar – 2021 for CSR activities which also includes water conservation projects as mentioned above.</p>

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	largely depending on the ground water in the study area. Mundra block is reported to be a safe ground block as on date. Due to influx of people and rapid urbanization due to the economic development, there could be some stress on the ground water resources						

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	in future.						
3.3	It is estimated that about 60,000 m ³ /day (60 MLD) of sewage will be generated from the APSEZ facility when the project is fully developed.	No Impact	Seven sewage treatment plants with an aggregate capacity of 3.1 MLD have already built at APSEZ. Treated sewage is utilized for greenbelt development and sewage is not discharged into either seasonal natural streams or marine environment.	APSEZ is permitted to develop decentralized sewage treatment plants of total 62 MLD capacities. Existing sewage treatment facilities will be augmented progressively based on the development at APSEZ in future. Similar to existing practices, treated sewage will be	APSEZ	As and When Required	<p>Current installed capacity of wastewater treatment plants is 6.1 MLD (ETP, STPs & CETP) for treatment of effluent & sewage generated at various locations. Out of 45 only 4 industries within the SEZ are sending their partially treated industrial as well as domestic effluent to the CETP confirming to CETP inlet norms for further treatment and final disposal. Other SEZ industries have their own STPs / ETPs for treatment of wastewater generated from their industrial operation and discharging the treated water on land for horticulture purpose within their premises as per specific permission granted by SPCB.</p> <p>APSEZ also granted permission to treat 2.5 MLD of sewage generated from Mundra village through CETP and STP. Presently avg. 2.3 MLD of wastewater (in to ETP, STPs & CETP) is treated and being utilized on land for horticulture purpose within APSEZ premises during Oct'20 to Mar'21 Existing wastewater treatment plants are adequate to treat and handle the total effluent / sewage load considering current development.</p> <p>Existing wastewater treatment facilities will be augmented or new plants will be developed on modular basis considering future requirement.</p>

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				utilized for greenbelt development.																							
4	Air quality management Plan																										
4.1	Although all the regulated activities in the study area will be adopting promulgated emission norms, total air emission mass discharge from the study area would increase.	Level-2	APSEZ and other thermal power plants have obtained valid consent to operate and have been operating the facilities as per the emission norms stipulated in respective consent orders. APSEZ and other two power plants are monitoring the ambient air quality on regular intervals as per GPCB/CPCB guidelines and the data is analyzed and presented to GPCB on monthly basis. Both the thermal power plants located within the study area have installed continuous emission	All existing and new industrial establishments will obtain requisite consents from GPCB and adhere to the stipulated emission norms regulations and guidelines issued by authorities from time to time.	APSEZ And Other Industries	Continual Process	<p>APSEZ has been granted requisite permissions from the concerned authorities with stipulated norms for air emission (flue gas as well as ambient air).</p> <p>Ambient Air Quality monitoring is being carried out by NABL accredited and MoEF&CC authorized agency namely M/s. Pollucon Laboratory Pvt. Ltd. as per NAAQ standards, 2009. Stack emission monitoring is also being carried out on regular basis. Reports of the same are being submitted to the concerned authorities on regular basis.</p> <p>Adani power plant has installed continuous emission and air quality monitoring instruments as per CPCB Directive and submitting the reports also. Another power plant of CGPL is outside APSEZ area.</p> <p>The AAQM summary for last six months (Oct'20 to Mar'21) are as below. Locations: 17 Nos. (APSEZ – 12 + APL – 5 including 3 villages) Frequency: Twice in a week</p> <table><tr><th>Parameter</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit^s</th></tr><tr><td>PM₁₀</td><td>µg/m³</td><td>96.75</td><td>24.36</td><td>100</td></tr><tr><td>PM_{2.5}</td><td>µg/m³</td><td>56.35</td><td>14.61</td><td>60</td></tr><tr><td>SO₂</td><td>µg/m³</td><td>26.59</td><td>6.22</td><td>80</td></tr></table>	Parameter	Unit	Max	Min	Perm. Limit ^s	PM ₁₀	µg/m ³	96.75	24.36	100	PM _{2.5}	µg/m ³	56.35	14.61	60	SO ₂	µg/m ³	26.59	6.22	80
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			and air quality monitoring instruments as per CPCB directive.				<table><tr><td>NO₂</td><td>µg/m³</td><td>46.36</td><td>11.70</td><td>80</td></tr></table> <p>\$ as per NAAQ standards, 2009 Values recorded confirms to the stipulated standards.</p> <p>Approx. INR 19.17 Lakh is spent by APSEZ for environmental monitoring activities during the FY 2020-21, which also includes ambient air quality monitoring for overall APSEZ, Mundra.</p> <p>Other industries located within the SEZ have obtained requisite permissions from the competent authorities for their respective plant and they also carried out environmental monitoring within their premises to comply with the permission granted. The same has been ensured by APSEZ as well as SPCB during their regular visits. APSEZ carries out regular visits/inspections of member industries within SEZ and last visit was conducted during Feb & Mar' 2021 for EMS & compliance verification. During compliance verification, it was verified that monitoring of air emission was well within the permissible standards based on analysis reports. Same will be continued in future also.</p> <p>The monitoring reports of industries within SEZ are also being submitted to the regulatory authorities as a part of half yearly Compliance report of EC for Multi-Product SEZ.</p>	NO ₂	µg/m ³	46.36	11.70	80
NO ₂	µg/m ³	46.36	11.70	80								
				A common air quality management committee may be framed under the guidance	APSEZ and Other Industries, Stakeholders, District Administration and GPCB*	Long Term And Continual	<p>APSEZ will co-operate and comply with the directions from concerned regulatory authorities for air quality management within APSEZ area. However at present, APSEZ has formed Internal Environment Monitoring Committee, involving officials from APSEZ, Adani Power Limited and other member units with following role and responsibilities:.</p> <ul style="list-style-type: none">• Identification of sources of air & noise emission and its dispersion in surrounding villages					

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				of the State Pollution Control Board and district administration to manage regional level emission inventory data that can help to manage regional level air quality management goals.			<ul style="list-style-type: none"> Remedial measures to eliminate, control, reduce or capture air & noise emission Identify available resource to abate the air and noise emission Required additional resources for control of air and noise emission Drinking water and its testing of all the available fresh water sources in surrounding villages Identify any surrounding villages affected by organization's improper waste disposal mechanism. <p>Last committee meeting was conducted on dated 29th Sept 2020, and below were the point of discussion for way forward.</p> <ul style="list-style-type: none"> Maintain the existing practice to control the emission in terms of Air, Water and Noise. Ensure for proper covering of trucks / vehicles carrying coal / cargo to reduce spillages on road Carry out study about impact on ground water quality due to continuous extraction or any other factors. Inclusion of Ambient Air Quality and Noise Monitoring station covering surrounding villages by APSEZ considering further development and statutory clearances. <p>Details submitted along with last half yearly compliance report for the period Apr'20 to Sep'20.</p> <p>APSEZ and all the industries within SEZ are in compliance to NAAQS and same is being ensured by APSEZ. The monitoring reports of industries within SEZ are being submitted to the regulatory authorities as part of half yearly Compliance report of EC for Multi-Product SEZ.</p>
	Release of particulate		APSEZ has been implementing the	All	APSEZ and		Following safeguard measures are taken by APSEZ for abatement of dust emissions.

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4.2	emissions from handling and storage of coal at the port and power plants would influence PM10 and PM2.5 concentration in the background air. This could pose some health impacts such as asthma and COPD etc. among the local communities.	Health Impact	following management plan to control emissions as per the applicable regulations and similar practices will be adopted in future: Entire bulk material handling facilities are mechanized. Regular water sprinkling on road and other open areas, regular cleaning of roads, dry fog dust suppression systems (DSS) in hoppers, transfer towers and conveyor belts, use of water mist canon, covered conveyor belts, regular sprinkling on coal heaps,	industries located in the APSEZ shall adhere to the emissions norms and minimum stack height guidelines issued by CPCB and consent to operate issued by Gujarat Pollution Control Board from time to time.	Other Industries	Continual Process	<ul style="list-style-type: none">Adequate stack heights to the Boilers, D.G. Sets, TFHs & HWGs for proper dispersion of pollutants within APSEZUsing of liquid & Gaseous fuels instead of solid fuels in Boilers, Thermic fluid heaters and hot water generators.Regular sprinkling on road and other open areaRegular cleaning of roadsDry fog Dust Suppression System (DSS) in hopper, transfer towers and conveyor beltsUse of water mist canonClosed type conveyor beltsRegular sprinkling on coal heapsCovering other types of dry bulk cargo heapsInstallation of wind breaking wallDevelopment of greenbelt along the periphery of the storage yards/back up areaMechanized handling system for coal and other dry bulk cargoWagon loading and truck loading through closed silo <p>Adequate air pollution control measures like ESPs, FGDs, Bag Filters, etc. and adequate stack heights provisions are implemented within the thermal power plant.</p> <p>The stack monitoring summary for last six months (Oct'20 to Mar'21) are as below. Total Nos. of Stacks: 22 Nos. Frequency: Monthly / Half Yearly</p> <table><tr><th>Parameter</th><th>Unit</th><th>GPCB Limit</th><th>Min</th><th>Max</th></tr><tr><td>PM</td><td>mg/nm³</td><td>150</td><td>15.29</td><td>37.62</td></tr><tr><td>SO₂</td><td>Ppm</td><td>100</td><td>3.59</td><td>7.76</td></tr></table>	Parameter	Unit	GPCB Limit	Min	Max	PM	mg/nm ³	150	15.29	37.62	SO ₂	Ppm	100	3.59	7.76
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							<table><tr><td>NO_x</td><td>ppm</td><td>50</td><td>24.27</td><td>38.62</td></tr></table> <p>Values recorded confirms to the stipulated standards.</p> <p>Approx. INR 19.17 Lakh is spent by APSEZ on environmental monitoring activities during the FY 2020-21, which also includes stack monitoring.</p> <p>All other industries located within SEZ are adhere to provide adequate stack height and pollution control measures for proper dispersion of pollutants as per respective permissions granted by the board. The same is being inspected and ensured by APSEZ as well as SPCB officials on regular basis.</p>	NO _x	ppm	50	24.27	38.62
NO _x		ppm	50	24.27	38.62							
		covering of other types of dry bulk cargo heaps by protective materials, installation of wind breaking wall, development of greenbelt along the periphery of the storage yards/back up area and mechanized handling system for coal and other dry bulk cargo and Wagon loading and truck loading through closed silo. Both thermal power plants in the study	An internal Coal Dust Management Working Group shall be formed by APSEZ to effectively co-ordinate the approach to coal dust	APSEZ and Other Industries, Concerned Stake holders, District Administration*	Long Term	<p>As mentioned above, presently, APSEZ has formed Internal Environment Monitoring Committee, involving Officials of APSEZ, Adani Power Limited & other member units, with specific role and responsibilities as defined above.</p> <p>The dry cargo is being handled by mechanized system and transported by covered conveyer system, trucks and rail wagons. Wind breaking wall is provided around the coal storage yards of APSEZ as well as Adani Power Plant.</p> <p>Adequate air pollution control measures like ESPs, FGDs, Bag Filters, etc. and adequate stack heights provisions within the thermal power plant for proper dispersion of pollutants.</p> <p>Green belt / plantation is provided around the periphery of dry cargo storage area and regular water sprinkling is also being done to abate the dust emission from coal hips.</p> <p>Last committee meeting was conducted on dated 29th Sept 2020, and below were the point of discussion for way forward.</p>						

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			area have installed electrostatic precipitators on the boilers and are meeting the emission norms as per the respective ECs granted. Due to installation of tall stacks as per CPCB guidelines and EC conditions, the relative air pollution impacts due to release of emissions from two power plants is insignificant.	management and monitoring			<ul style="list-style-type: none"> Maintain the existing practice to control the emission in terms of Air, Water and Noise. Ensure for proper covering of trucks / vehicles carrying coal / cargo to reduce spillages on road Carry out study about impact on ground water quality due to continuous extraction or any other factors. Inclusion of Ambient Air Quality and Noise Monitoring station covering surrounding villages by APSEZ considering further development and statutory clearances. <p>Details submitted along with half yearly compliance report for the period Apr'20 to Sep'20.</p>
4.3	Ships are one of the significant sources of SO ₂ and NO _x emissions in the study area. Marine diesel engines on the	Level-2	A Standard Operating Procedure (SOP) has been developed to be included as a part of APSEZ environment management plan to verify that all ships anchored at the port are adopting the	The current global limit for Sulphur content of ships fuel oil is 3.5 % m/m (mass by mass). According to	APSEZ and Ship Owners	Long Term	<p>The ships coming to the APSEZ is complying with MARPOL and other shipping rules and regulations.</p> <p>APSEZ has already started providing shore power supply to the tugs (11 Nos.), dredgers (2 Nos.) and barges (1 No.). The feasibility of shore power will be explored and implemented on large scale for the visiting vessels to reduce idling stage ship emissions.</p>

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	ships often utilize fuel oils that might contain higher sulphur content. As per the international best practices, these marine diesel engines are designed to meet MARPOL regulations with NOX emissions less than 14.4 gram/Kwhr of engine. Due to lower		MARPOL4 regulations.	MARPOL, the new global cap on sulphur in the marine vessel fuels will be 0.50% m/m by the 1st January 2025. APSEZ should explore the possibility of providing shore power to the ships at the port to reduce idling stage ship emissions.			

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	stack heights of the marine diesel engine, ship emissions often gets dispersed in the local environment and might pose risk of fumigation during the early morning and evening hours due to atmospheric inversion break-up periods.						
				Due to implemen			Presently, cargo evacuation through rail & conveyer has increased to 56 %, thereby reducing the usage of road.

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4.4	Road vehicle emissions will be other major contributors to the air pollution in the region when the facility is fully developed.	Level-2	Not Applicable	tation of Bharat VI fuels (MoEF&C C)6 in near future the vehicular and diesel engine emissions will be reduced by about 50% from the current national levels. APSEZ should develop a robust contractor environmental policy to ensure that Bharat Stage VI emission	APSEZ and All Industries	Short Term	Vehicles having valid PUC certificate are only being allowed to enter within APSEZ area. In future, APSEZ will also explore the feasibility of using Electric Vehicles for internal cargo movement.

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				norms are adopted by all their contractors and sub-contractors.																																																										
5	Noise emissions																																																													
5.1	Noise emissions are envisaged from port operations, industrial operations and power plants in the study area. Any increase in noise levels beyond three decibels	Level-1	Due to adoption of various mechanized operations at the waterfront development, the noise emissions from the port cargo handling will be minimal. An adequate greenbelt is being developed by APSEZ to further reduce any residual impacts due to noise emissions from the facility. Periodic noise level monitoring programs were adopted by APSEZ. Predicted noise levels were found to be well	APSEZ, all the tenant industries and facilities within APSEZ are required to undertake noise monitoring at their facilities to demonstrate the compliance with the Noise level standards.	APSEZ	Continual Process	<p>Below Safeguard measures are already taken for abatement of noise emissions.</p> <ul style="list-style-type: none">Development of greenbelt along the periphery of the operational area.D.G. Sets having Acoustic enclosures.Maintenance of plant machineries and equipments on regular frequency. <p>Noise monitoring is being carried out by NABL accredited and MoEF&CC authorized agency namely M/s. Pollucon Laboratory Pvt. Ltd. as per permission granted and reports are being submitted to the concerned authorities on regular basis.</p> <p>The noise monitoring summary for last six months (Oct'20 to Mar'21) are as below.</p> <p>Locations: 12 Nos. Frequency: Once in a month (24 hourly)</p> <table><tr><th>Noise</th><th>Unit</th><th>Leq Max</th><th>Leq Min</th><th>Leq Perm. Limit^{\$}</th></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	Noise	Unit	Leq Max	Leq Min	Leq Perm. Limit ^{\$}																																																		
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	from the background levels would be perceived as noise nuisance (USEPA)7.		within the designated noise standards for Industrial facilities.	Continuous noise recording units can be installed by APSEZ at facility boundary to address the community grievances, whenever required. To assess the overall site wide compliance and also to address any community grievances related to noise issues due to operation			<table><tr><td>Day Time</td><td>dB(A)</td><td>73.8</td><td>41.2</td><td>75</td></tr><tr><td>Night Time</td><td>dB(A)</td><td>69.7</td><td>40.3</td><td>70</td></tr></table>	Day Time	dB(A)	73.8	41.2	75	Night Time	dB(A)	69.7	40.3	70	\$ as per GPCB standards			
Day Time	dB(A)	73.8	41.2	75																	
Night Time	dB(A)	69.7	40.3	70																	
							Approx. INR 19.17 Lakh is spent by APSEZ on environmental monitoring activities during the FY 2020-21, which includes noise monitoring.														
							All the results are well within the standards. From this it can be inferred that there are no impacts on the surrounding community.														
							All other industries located in the APSEZ area adhere to monitor and control the ambient noise level as per permission granted by SPCB and same is being confirmed by APSEZ as well as SPCB on regular basis.														
							Further, till date APSEZ has not received any grievances/notice for noise issues from any of the stakeholders.														

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				of APSEZ facilities.			
				In order to address the public grievances related to noise from the facility, an internal Noise Management Committee can be formed by APSEZ to investigate the root cause and to develop and implement noise mitigation plans in the specific zones.	APSEZ	Continual Process	<p>As mentioned above, presently, APSEZ has formed Internal Environment Monitoring Committee, involving Officials of APSEZ, Adani Power Limited & other member units, having role and responsibilities as defined above.</p> <p>Last committee meeting was conducted on dated 29th Sept 2020, and below were the point of discussion for way forward.</p> <ul style="list-style-type: none"> • Maintain the existing practice to control the emission in terms of Air, Water and Noise. • Ensure for proper covering of trucks / vehicles carrying coal / cargo to reduce spillages on road • Carry out study about impact on ground water quality due to continuous extraction or any other factors. • Inclusion of Ambient Air Quality and Noise Monitoring station covering surrounding villages by APSEZ considering further development and statutory clearances. <p>No grievance received for noise related issues and it is observed that ambient noise level are well within the permissible standards.</p>
6	Surface water quality (Terrestrial and Marine)						
			As per the master	As per the			APSEZ has installed Common Effluent Treatment Plant (CETP)

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6.1	In general, release of untreated wastewater from industrial facilities would pose threat to water quality of streams, estuaries and marine water bodies.	Level - 1	plan of APSEZ, 67 MLD of wastewater is expected to be generated from the fully developed project scenario, for which necessary permissions to set up decentralized CETPs of various capacities are already obtained. Presently a CETP capacity of 2.5 MLD is in place. Presently member units treat their effluents to meet the CETP inlet norms and then send it to CETP. Treated wastewater from CETP meets the stipulated discharge norms for utilization for greenbelt development within the APSEZ areas.	master plan of APSEZ, the existing CETP shall be augmented to 67 MLD in progressive manner based on the future demand. The facility should limit the marine discharge of treated industrial wastewater to 16 MLD as per the permits. Remaining treated wastewater shall be	APSEZ	As and When Required	<p>having 2.5 MLD capacities for treatment of partially treated effluent and sewage generated from industries within SEZ.</p> <p>Currently, CETP receives 907 KLD hydraulic load and considering the current development scenario, existing CETP is adequate to treat and handle the total effluent load coming from industries within SEZ.</p> <p>Out of 45 only 4 industries within SEZ are sending their partially treated industrial as well as domestic effluent to the CETP confirming CETP inlet norms for further treatment and final disposal. Other industries within SEZ have their own STPs / ETPs for treatment of wastewater generated from their industrial operation and discharging the treated water on land for horticulture purpose within their premises as per permission granted by SPCB.</p> <p>The capacities of CETP will be enhanced on modular basis as per future requirement.</p> <p>Presently avg. 2.3 MLD (from CETP, ETP & STPs) of treated water is being utilized on land for horticulture purpose within APSEZ premises during period Oct'20 to Mar'21 and no discharge is made to any other source.</p>

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				utilized for horticulture purpose.			
			Online wastewater quality monitoring systems are installed at CETP to ensure quality of treated effluent meets the requisite discharge norms. No wastewater from CETP is discharged into natural bodies as on date..	Efforts shall be made to recycle complete treated wastewater for port operations and industrial operations of APSEZ in future based on a detailed techno-economic feasibility study.	APSEZ	Based on outcome Techno-feasibility Study	Online continuous effluent monitoring system installed at the discharge point of CETP to track any deviation from discharge norms. Presently entire quantity of treated water from CETP is used for gardening / horticulture purpose within APSEZ premises.
			Runoff during monsoon from coal storage yards is collected in sedimentation ponds (dump pond) to	Storm water runoff from the facility during the	APSEZ	Continual	There are provision of drains around coal stack yard to carry to runoff water to dump ponds. This water is either used for dust suppression or after sedimentation (to remove residual dust), is allowed disposal to sea. Presently Marine monitoring is being carried out once in a month

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			remove any residual dust particulates for further disposal into sea	first rain shall be sampled and analyzed for the presence of heavy metals or other criteria pollutants to adopt corrective and preventive actions to protect the marine water quality. All red and hazard category industry within APSEZ shall adopt spill prevention and			<p>by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratory Pvt. Ltd. The analysis reports of the same are being submitted to the concerned authorities on regular basis.</p> <p>The marine water quality monitoring summary for last six months (Oct'20 to Mar'21) is as per below.</p> <p>Locations: 14 Nos. (APSEZ – 9 + APL – 5) Frequency: Once in a Month / Half Yearly</p> <table><tr><th rowspan="2">Parameter</th><th rowspan="2">Unit</th><th colspan="2">Surface</th><th colspan="2">Bottom</th></tr><tr><th>Max</th><th>Min</th><th>Max</th><th>Min</th></tr><tr><td>pH</td><td>--</td><td>8.31</td><td>7.91</td><td>8.27</td><td>7.90</td></tr><tr><td>TSS</td><td>mg/L</td><td>197</td><td>34</td><td>235</td><td>31</td></tr><tr><td>BOD (3 Days @ 27 °C)</td><td>mg/L</td><td>5.4</td><td>3.3</td><td>7.6</td><td>4.7</td></tr><tr><td>DO</td><td>mg/L</td><td>6.1</td><td>5.2</td><td>5.9</td><td>5.1</td></tr><tr><td>Salinity</td><td>ppt</td><td>39.5</td><td>36.1</td><td>39.7</td><td>36.4</td></tr><tr><td>TDS</td><td>mg/L</td><td>38314</td><td>37294</td><td>38740</td><td>37708</td></tr></table> <p>Approx. INR 19.17 Lakh is spent by APSEZ for environmental monitoring activities during the FY 2020-21, which includes marine water monitoring.</p>	Parameter	Unit	Surface		Bottom		Max	Min	Max	Min	pH	--	8.31	7.91	8.27	7.90	TSS	mg/L	197	34	235	31	BOD (3 Days @ 27 °C)	mg/L	5.4	3.3	7.6	4.7	DO	mg/L	6.1	5.2	5.9	5.1	Salinity	ppt	39.5	36.1	39.7	36.4	TDS	mg/L	38314	37294	38740	37708
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				control program and no effluents shall be discharged into storm water-drains.			
			Detailed marine hydrodynamic modelling studies revealed that the current and proposed dredged soil disposal practices, sea water intake and outfall facilities and desalination plant outfall etc have shown insignificant impact on the marine eco-system. As part of the comprehensive environmental monitoring program, APSEZ has been adopting marine water and sediment	Good dredging practices shall be adopted by APSEZ: (i).Improving the dredging accuracy (ii).Improving onboard automation and monitoring, (iii). Reduce spill and loss, (iv). evaluating the need	APSEZ	Long Term	<p>No capital dredging has been done, since Apr 2015. Dredged material generated during maintenance dredging is being disposed at designated locations within deep sea as identified by NIO.</p> <p>Dredging Management plan is adopted for carrying out dredging and management of dredge material. Presently there are 3 nos. (2 Nos. Cutter suction + 1 No. Trailer suction) of dredgers are in operation for dredging.</p> <p>Marine monitoring is being carried out once in a month by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratory Pvt. Ltd. The analysis reports of the same are being submitted to the concerned authorities on regular basis. Summary of marine water for the last six months is as mentioned above.</p> <p>The same practice will be continued in future also as per direction by MoEF&CC as well as GPCB.</p> <p>Monitoring will be focused near ecological sensitive area in case of need to carryout capital dragging near such areas.</p>

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			quality monitoring on monthly basis.	for installing silt screens near mangrove areas during the dredging phase operations, (v). Environment friendly dredging activities can be undertaken in such a way that the overall turbidity levels near the mangrove and ecologically sensitive zones shall not exceed			

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				100 NTU or 200 mg/l of TSS (10% lethal level of fish) Existing marine monitoring program shall be continued as per the directions of MoEF&CC and GPCB.			
7	Groundwater quality and salinity ingress						
7.1	While Mundra block is enjoying safe ground water status as on date (based on the data published by CGWB),	Level-2	APSEZ is not utilizing ground water for any type of use. APSEZ is meeting the current water demand through Narmada water supply scheme and 47 MLD captive desalination plant at site.	A dedicated desalination plant of capacity 4,50,000 m ³ /day (450 MLD) will be developed in	APSEZ	As and When Required	<p>Present source of water for various project activities is desalination plant of APSEZ and/or Narmada water through Gujarat Water Infrastructure Limited and same is sufficient to meet the present water demand.</p> <p>APSEZ does not draw any ground water.</p> <p>The desalination plant of additional capacities will be installed on modular basis considering future development and requirement.</p>

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	due to induced economic and population growth, use of ground water resources by the local people might increase in Mundra region. This might increase the TDS and chloride levels in the ground water in future.			progressive manner to meet the APSEZ requirements.			
7.2	Due to induced growth in the region,	Level-2	Ground water is not drawn by APSEZ for its operations. Natural streams (seasonal rivers)	The Govt. of Gujarat, Narmada, Water Resources	District Administration*	Long Term	APSEZ will co-operate and comply with the directions from concerned regulatory authorities. APSEZ does not draw any ground water for the fresh water requirement.

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	pressure on the available ground water source would increase and this could pose some threat to salinity ingress.		passing through the APSEZ area will not be disturbed, the micro-watershed in the area will not be disturbed. Due to the above reasons, the possibility of salinity ingress due to APSEZ development is not envisaged. Mundra and Anjar blocks fall under fresh water to medium salinity zones. It can be observed that little variation was observed in the ground water salinity levels from year 2013 to 2016 across the Mundra and Anjar blocks. This aspect confirms that the overall salinity ingress from the shore into the land due to existing APSEZ facilities and power plant outfalls are less significant.	, Water Supply & Kalpsar Dept., (WRD)12 has been implementing various salinity ingress prevention projects			<p>However, Adani Foundation – CSR arm of Adani Group has carried out rainwater harvesting activities in the nearby villages for benefit of the locals.</p> <p>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. Including this a big recharge operation by bunding was taken up for Zarpara village as rainfall was very good last FY 2020-21.</p> <p>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.</p> <p>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 Government Figures.</p> <p>Our water conservation work is as below.</p> <ul style="list-style-type: none"> A large number of water harvesting structure (18 Nos. of check dams in coordination with salinity department) Ground recharge activities (pond deepening work for more than 52 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 Roof Top Rain Water Harvesting 54 Nos. which is having 10,000 liter storage which is sufficient for one year drinking water purpose for 5 people family.

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							<ul style="list-style-type: none"> Recharge Bore well 75 Nos which is best ever option to Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which bore well depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar. AF has covered 295 farmers and 1422 acre drip irrigation area in last two years which is remarkable for water conservation in first phase—in this phase we have covered 66 farmers and 360 Acre land for the same. Total 968 Farmers and 5626 Acre Drip since 2011-12 to 2020-21. <p>With the objective of to preserve the rain water 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.</p> <p>Narmada Water Resources, Water Supply & Kalpsar Dept.,(WRD)1 has been implementing various salinity ingress prevention projects. Under Sardar Sarovar canal project, Govt. of Gujarat has proposed to implement about 8200 Km stretch of water canal and the project is at various stages of implementation. Under this project about 112,000 ha of land in about 180 villages will be benefitted with irrigation needs. This will significantly reduce the pressure on the ground water resources in the region.</p>
				While the individual industries in the study area will	All Concerned Stakeholders, District	Continual Process	<p>APSEZ (7 Locations – half yearly) & Adani Power Ltd. (5 Locations – quarterly) is carrying out ground water sampling and reports of the same are being submitted to the regulatory authorities on regular basis.</p> <p>The summary of APSEZ ground water quality monitoring for last</p>

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				continue to undertake ground water quality monitoring as per the environmental clearances issued for the respective projects, a regional level ground water conservation action committee can be formed under the guidance of state ground water board and district	Administration and CGWB*		<div>six months (Oct'20 to Mar'21) are as below.</div> <div>Nos. of Location: 07</div> <table><tr><th>Sr. No.</th><th>Parameter</th><th>Unit</th><th>Min</th><th>Max</th></tr><tr><td>1</td><td>pH</td><td>--</td><td>7.64</td><td>8.32</td></tr><tr><td>2</td><td>Salinity</td><td>ppt</td><td>1.44</td><td>28</td></tr><tr><td>3</td><td>Oil & Grease</td><td>mg/L</td><td>2.6</td><td>2.6</td></tr><tr><td>4</td><td>Hydrocarbon</td><td>mg/L</td><td>ND*</td><td>ND*</td></tr><tr><td>5</td><td>Lead as Pb</td><td>mg/L</td><td>0.037</td><td>0.28</td></tr><tr><td>6</td><td>Arsenic as As</td><td>mg/L</td><td>ND*</td><td>ND*</td></tr><tr><td>7</td><td>Nickel as Ni</td><td>mg/L</td><td>ND*</td><td>ND*</td></tr><tr><td>8</td><td>Total Chromium as Cr</td><td>mg/L</td><td>0.027</td><td>0.033</td></tr><tr><td>9</td><td>Cadmium as Cd</td><td>mg/L</td><td>ND*</td><td>ND*</td></tr><tr><td>10</td><td>Mercury as Hg</td><td>mg/L</td><td>ND*</td><td>ND*</td></tr><tr><td>11</td><td>Zinc as Zn</td><td>mg/L</td><td>0.15</td><td>0.71</td></tr><tr><td>12</td><td>Copper as Cu</td><td>mg/L</td><td>ND*</td><td>ND*</td></tr><tr><td>13</td><td>Iron as Fe</td><td>mg/L</td><td>0.2</td><td>4.2</td></tr><tr><td>14</td><td>Insecticides/Pesticides</td><td>mg/L</td><td>ND*</td><td>ND*</td></tr><tr><td>15</td><td>Depth of Water Level from Ground Level</td><td>meter</td><td>1.65</td><td>2.3</td></tr></table> <div>* ND – Not Detectable</div> <div>Approx. INR 19.17 Lakh is spent by APSEZ for environmental monitoring activities during the FY 2020-21, which includes ground water monitoring.</div> <div>The fresh water requirement of all the industries within SEZ are being satisfied through APSEZ. All the industries are encouraged to monitor ground water quality as per the permissions granted by competent authorities.</div>	Sr. No.	Parameter	Unit	Min	Max	1	pH	--	7.64	8.32	2	Salinity	ppt	1.44	28	3	Oil & Grease	mg/L	2.6	2.6	4	Hydrocarbon	mg/L	ND*	ND*	5	Lead as Pb	mg/L	0.037	0.28	6	Arsenic as As	mg/L	ND*	ND*	7	Nickel as Ni	mg/L	ND*	ND*	8	Total Chromium as Cr	mg/L	0.027	0.033	9	Cadmium as Cd	mg/L	ND*	ND*	10	Mercury as Hg	mg/L	ND*	ND*	11	Zinc as Zn	mg/L	0.15	0.71	12	Copper as Cu	mg/L	ND*	ND*	13	Iron as Fe	mg/L	0.2	4.2	14	Insecticides/Pesticides	mg/L	ND*	ND*	15	Depth of Water Level from Ground Level	meter	1.65	2.3
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				Administration.			As mentioned above, presently, APSEZ has formed Internal Environment Monitoring Committee, involving Officials of APSEZ, Adani Power Limited and other member units, having role and responsibilities as defined above. APSEZ will co-operate and comply with the directions from concerned regulatory authorities for ground water management.
8	Waste Management						
8.1	Solid waste will be generated from industrial activities of APSEZ and other permitted facilities in the study area including Mundra town. These wastes would contain recyclable material, construction debris,	Level-2	APSEZ has been adopting Zero waste Initiatives and the entire waste generated from existing operations is segregated and disposed to recycling vendors, thereby APSEZ has achieved zero landfill status as on date.	APSEZ will continue to adopt Zero Waste Initiative and wastes will be segregated at source and disposed to various recycling vendors, co-processing in cement plants. This initiative	APSEZ	Continual Process	Presently APSEZ has implemented Zero waste Initiatives as per 5R (Reduce, Reuse, Recycle, Recover & Reprocess) principles of waste management. At present, APSEZ has developed material recovery facility for 6.0 TPD capacities. 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, Glass etc. are then sent to respective recycling units, whereas remaining non-recyclable waste is bailed and sent to cement plants for Co-processing as RDF (Refused Derived Fuel). The same practice will be continued in future also. APSEZ has also been recognized for Zero Waste to Landfill certification from reputed organization. Copy of certificate has been submitted in earlier EC compliance report (Oct 19 to March 20). APSEZ will continue proper solid waste management in his operational area.

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	organic waste, inert material and e-waste etc. In the absence of any organized source segregation programs and material recycling strategies and infrastructure facilities, these wastes will enter into environment and would pose long term health			helps not only to reduce the waste to landfill significantly, but also to recycle the materials there by avoiding ecological impacts.			

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	impacts.						
8.2	Considering an average solid waste generation of 0.25 Kg/person/day, the estimated solid waste from facilities within APSEZ will be in the order of 100 TPD (36,500 TPA).	Level-2	APSEZ has made a provision for central waste management facilities within the existing site based on the future needs. As part of the Zero Waste Initiatives, no landfill facilities will be installed at APSEZ.	The existing waste segregation and material recycling facilities will be augmented to dispose safely the wastes generated from APSEZ areas. Solid Waste Management Program shall be adopted and implemented as per Municipal Solid Waste	APSEZ	Continual Process	Industries located within the SEZ area are also complying with the waste management rules stipulated by statutory authorities and same is also being confirmed by APSEZ as well SPCB on regular basis.

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				Management Rules 2016 and Construction Waste Management Rules 2016			
8.3	About 35 TPD (13,000 TPA) of solid waste would be generated from the proposed industrial areas located outside the APSEZ area.	Level-2	As per the MSW Rules 2016 all the industrial facilities and SEZs are required to adopt waste segregation facilities at the respective properties and non-recyclable waste shall be disposed to landfill sites.	Solid Waste Management Program shall be adopted and implemented as per Municipal Solid Waste Management Rules 2016 and Construction Waste Management Rules 2016	All Industries	Continual Process	
9	Ecological aspects (terrestrial and marine)						
				APSEZ has approach			Stage – 1 forest Clearance for about 1576.81 Ha Forest land has been obtained. Presently APSEZ is in the process of compliance

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9.1	About 1576 ha of shrub forest land contiguous to APSEZ area is applied for land diversion for various developmental activities. This might have certain level of changes in the biodiversity in the study area.	Level - 1	It is noted that the designated forest land is free from any native vegetation and comprises of Prosopis juliflora. It is also noted that no endangered species are present at the shrub forests that are applied for land diversion. It is also noted that no forest produce is reported from this designated forest land parcel due to lack of economic importance of plant species reported in the shrub forest. It is also noted that no tribal lands are located in the designated forest land parcel. Hence there will not be any change in biodiversity due to the proposed diversion.	ed concerned authorities for diversion of designated forest land. Suitable compensatory afforestation plan shall be adopted based on the recommendations and directions of the concerned authorities. Due to adoption of compensatory	APSEZ/State Forest Department*	Long Term	to the stage – 1 Forest Clearance conditions, for further submitting to Govt. authorities for issuance of Stage-2 Forest Clearance.

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				afforestation program through a scientific manner, the overall ecological footprint in the district will be increased. Due to plantation of native tree species as part of greenbelt development, the overall biodiversity of the region will increase considerably when the project is fully			

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				developed									
9.2	Mangrove conservation areas are located adjacent to the APSEZ area. Accidental discharges of industrial effluents into the marine environment would pose certain ecological risk.	Level - 1	No development activities will be undertaken within mangrove conservation areas. APSEZ has taken up large scale mangrove afforestation activities in an area of more than 2800 ha at various locations across the coast of Gujarat state in consultation with various organizations. The Adani Foundation introduced 'Mangrove Nursery Development and Plantation' scheme in the area as an alternative income generating activity for the people of the region.	Mangrove footprint and health status shall be monitored annually	APSEZ	Continual Process	<p>As per study conducted by NCSCM in 2017, mangrove cover in and around APSEZ, Mundra has increased from 2094 Ha to 2340 ha (as compared between 2011 to 2017). The analysis has shown an overall growth of 246 ha. The cost for said study was INR 3.15 Cr.</p> <p>As a part of GCZMA recommendations and NCSCM mangrove conservation action plan, APSEZ has undertaken following activities.</p> <table><thead><tr><th>Sr. No.</th><th>Recommendations</th><th>Compliance</th></tr></thead><tbody><tr><td>1.</td><td>Mangrove mapping and monitoring in and around APSEZ</td><td><ul style="list-style-type: none">APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island.As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%.This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse</td></tr></tbody></table>	Sr. No.	Recommendations	Compliance	1.	Mangrove mapping and monitoring in and around APSEZ	<ul style="list-style-type: none">APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island.As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%.This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse
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									<p>which also shows that the growth of mangroves in a progressive direction.</p> <ul style="list-style-type: none"> NCSCM Report of the same is attached as Annexure – 2. The cost of the said study was INR 23.56 Lacs incurred by APSEZ.
							2.	Tidal observation in creeks in and around APSEZ	<ul style="list-style-type: none"> APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM. The observed tidal ranges indicate that the creeks experience normal tidal ranges, adequate for the growth of mangroves. Report of the same is incorporated in NCSCM report attached as Annexure – 2. The cost of the said activity was INR 1.0 Lacs.
							3.	Removal of Algal and Prosopis growth from mangrove areas	<ul style="list-style-type: none"> Algal and Prosopis growth monitoring was done in and around mangrove area and algal encrustation was found in some of the mangrove areas, which has been removed manually. Report of the same is attached as Annexure – 3. The cost of the said activity was INR 1.2 Lacs.
							4.	Awareness of mangroves importance in surrounding communities	<ul style="list-style-type: none"> Adani Foundation – CSR Arm of Adani group has done awareness camps/activities created in the community regarding importance of mangroves during the year 2020-21.

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								<ul style="list-style-type: none"> Adani Foundation has also provided 6.7 lacs kg Dry Fodder and 11.6 lacs kg Green fodder in 20 villages of Mundra and Anjar Block to support the resource dependent villagers, to avoid their dependency on mangroves. The expenditure for fodder supporting activities was approx. 120.86 Lacs during last FY 2020-21. Village Gauchar land development for the fodder cultivation to make fodder sustain village & Avail green fodder in scarcity phase. With the support of Gauchar Seva Samiti Grassland development in Siracha – 85 Acre & Zarpara – 25 Acre done which resulted in total production of 82 ton. The brief details of the said activities are incorporated in attached CSR Report for the FY 2020-21 attached as Annexure – 4. Other than this dedicated security guard with gate system deployed by APSEZ across the coastal area and no any unauthorized persons allowed within coastal as well as mangrove areas.
								<ul style="list-style-type: none"> The overall cost incurred by APSEZ is INR 146.62 Lacs as a part of mangrove conservation plan. <p>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, during Phase-II (2019-2020) it was 02</p>

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							<p>ha and during Phase III (2020-2021) it is 01 ha.</p> <p>Mangrove plantation done at Luni sea coast with fisher folk community during World Environment Day Celebration. Web talk show was organized on the occasion of "World Mangrove days On Multi species Mangrove bio diversity with Joint effort of GUIDE and Adani Foundation, Mundra. 8th June is celebrated as world ocean day. Adani foundation had celebrated the world ocean day by coastal cleaning activity at Juna Bandar, Luni Bandar and Bavadi Bandar.</p> <p>Mangroves nursery is developed in a Khari creek behind IOCL & 50,000 Nos. of new saplings are planted in creek area by APSEZ.</p>
9.3	Outfall from the thermal power plants desalination and CETP would pose certain level of impact on the marine environment	Level-1	<p>A detailed marine hydro-dynamic and dispersion modelling of the study area indicates that the background temperature and salinity at mangrove conservation area will not increase from the prevailing background levels as the outfalls are located far away.</p> <p>APSEZ and respective power plants in the study area have been monitoring the</p>	All approved marine outfalls shall be monitored for salinity, temperature and other designated parameters as per consent to establish issued by	APSEZ and Concerned Industry	Continual Process	<p>Presently marine monitoring is being carried out by the Adani power plant at the marine outfall locations and reports are being submitted to the concerned authorities on regular basis.</p> <p>APSEZ is carrying out Marine monitoring once in a month at 9 locations in deep sea by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratory Pvt. Ltd. The analysis reports of the same are being submitted to the concerned authorities on regular basis.</p> <p>Adani power plant is also doing marine water quality at 5 locations (2 locations at outfall location) in deep sea by NABL and MoEF&CC accredited agency namely M/s. Unistar Environment & Research Labs Pvt. Ltd. The analysis reports of the same are being submitted to the concerned authorities on regular basis. The summary of marine water quality is shown above.</p> <p>The comparison of marine water results between CIA and current monitoring data are as below.</p>

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	ent.		marine water quality status on monthly basis for the stipulated environmental and ecological parameters.	GPCB. Existing marine environmental monitoring program shall be continued.			<table><tr><th rowspan="2">Parameter</th><th rowspan="2">Unit</th><th colspan="2">Max</th><th colspan="2">Min</th></tr><tr><th>CIA</th><th>Present</th><th>CIA</th><th>Present</th></tr><tr><td>Temp.</td><td>°C</td><td>30.2</td><td>30.4</td><td>28</td><td>29</td></tr><tr><td>Salinity</td><td>ppt</td><td>41.8</td><td>39.7</td><td>34.9</td><td>36.1</td></tr></table> <p>As per above results, it can be seen that there is no major deviation in the concentration of parameters and thus indicates that impacts are insignificant.</p>	Parameter	Unit	Max		Min		CIA	Present	CIA	Present	Temp.	°C	30.2	30.4	28	29	Salinity	ppt	41.8	39.7	34.9	36.1
Parameter	Unit	Max		Min																									
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9.4	Terrestrial Ecology: Study area doesn't have any notified national parks or ecological sanctuaries. Since the area falls under dry deciduous shrubs.	Level-1	APSEZ has developed greenbelt in an area of 550ha as against the committed area of 430ha. A dedicated nursery is set up to promote plantation. APSEZ have undertaken a plantation with about 9.6 Lakh fully grown trees.	The compensatory afforestation area to be monitored annually to check the survival rate of the plantation.	APSEZ	Continual Process	<p>APSEZ has developed its own "Dept. of Horticulture" which is taking measures/ steps for terrestrial plantation/greenbelt development. APSEZ, Individual SEZ Industries and Adani Power Plant has developed more than 700 Ha. area as greenbelt with plantation more than 10 Lacs saplings within the APSEZ area including SEZ industries & Adani Power Plant.</p> <p>Dedicated horticulture department is maintaining and monitoring the terrestrial green belt development on regular basis to check the survival rate of plantation.</p> <p>Total expenditures of the horticulture dept. of APSEZ during the FY 2020-21 within APSEZ is INR 689 lakh.</p>																						

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	Due to scanty rains in the area, the overall natural green-cover/vegetation in the area is very small.						
10	Socio-economic aspects						
10.1	Population growth in the Mundra region was reported to be in the order of 85% during the past decade (2001-2011). Further expansion of the urban area could be possible due to	Level-1	Dedicated townships are developed within APSEZ area with necessary community infrastructures such as hospital, school, recreational facilities, sewage treatment and waste collection facilities. Adani Foundation has been undertaking various CSR programs under the principal themes such as education, community health, sustainable livelihood and rural infrastructure. About	The existing townships will be expanded to accommodate about 4 lakh people when the project activity is fully developed.	APSEZ	As and When Required	<p>APSEZ has developed two townships (Shantivan and Samudra) accommodating 2180 households and associated infrastructure facilities. Accommodation is made available for all interested employees working within Adani group & SEZ industries. Out of which 89% Occupancies are accommodated within the townships and rest are available for employees working within APSEZ.</p> <p>At present 45 nos. of industries (processing & non-processing) are operating within the SEZ. Township facilities are also made by SEZ industries within Mundra town for their employees having basic infrastructure facilities and requirements. Most of the employees working in SEZ industries are residing in Mundra township having all basic requirements and associated facilities. The existing social infrastructure facilities are adequate to accommodate the people considering present APSEZ development. The existing townships with associated facilities</p>

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	induced economic growth in the region. Increase in population will have a additional need for public infrastructure in the region.		Rs. 97 Cr has been spent on various CSR activities in the Mundra region since 2010. Similar community development programs (based on need based assessment) will be continued in future as well with allocation of appropriate budget.				<p>will be expanded as per requirement. Other infrastructure facilities have been developed for people are as follows.</p> <ul style="list-style-type: none"> • Multi-Specialty Hospital • School • Commercial complex • Religious place <p>APSEZ is actively working with local community (including fishermen community) around the project area and provides required support for their livelihood and other concerns through the CSR arm – Adani Foundation in the main five persuasions is mentioned below.</p> <ul style="list-style-type: none"> • Community Health • Sustainability Livelihood – Fisher Folk • Education • Rural Infrastructures <p>Adani foundation has spent approx. INR 4554.45 lakhs from April – 2018 to Sep – 2020 for CSR activities including cost of rural infrastructure projects development.</p> <p>Major works carried out since April 2018 as a part of CSR activities are as below.</p> <ul style="list-style-type: none"> • Pond Deepening work at Vadala & Mota Bhadiya • Artificial recharge borewell in Borana, Mangara & Dhrub village. • Under Dignity of Drivers Project, Adani Foundation has constructed Resting Shed for Drivers entering in SEZ Premises. Total 50 beds are constructed, drinking water and sanitation plus recreational – TV Facilities. • Construction of 45 Toilet block and proper bathing place for labours. • RO Plant – Samaghogha, Siracha village & Vallabh Vidyalaya at Mundra

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							<ul style="list-style-type: none"> Basic sanitation facility (18 Nos) at Balvadi, medical centre and retiring places at labour settlements Ground recharge activities (pond deepening work for more than 52 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. Roof Top Rain Water Harvesting 54 Nos. and Recharge Bore well 75 Nos. Drip Irrigation 823 Farmers benefitted in coordination with Gujrat Green Revolution Company Participatory Ground Water Management in ten villages with holistic approach for Kankavati Sandstone Aquifer Programme. Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which bore well depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar. Development of Prisha Park at Mundra. Pond Bund strengthening at Zarpara Village Approach Road Restoration at all Fisher folk vasahat. Garden Development at Primary School Rampar village Shed Development at Shukhpurvah Mundra Under Gram Utthan Project, Adani Foundation is supporting home biogas to farmers to Uthhan Villages phase wise. Current year supported 117 home biogas in Dhrub, Zarpara and Navinal Villages. Adani Foundation at Mundra-Kachchh has initiated multi-species plantation of mangroves in Kachchh in association with GUIDE. During 2018-2019 (Phase-I) multi-species mangrove plantation was carried out in 10 ha, during Phase-II (2019-2020) it was 02 ha and during Phase III (2020-2021) it is 01 ha. Sea Weed Culture - A pilot cultivation facility (5 KL tanks in 6 nos) for the farming of different economically important seaweeds in the tanks on the onshore has been established and commenced the cultivation trials with red sea weeds Kappaphycus alvarezii, Gracilaria dura and green sea weed Ulva. The initial trials have given

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							<p>very promising results and harvested 6-7 times the seeded material in a 40-45 days cultivation period.</p> <p>Similar community development programs (based on need based assessment) will be continued in future as well with allocation of appropriate budget.</p>
10.2	The overall sex ratio was found to reduce by 28% in the Mundra taluk (study area) during the period 2001 - 2011. This could be attributed to increase in influx of working men in the region due to rapid economic development. Similar trend might continue in future due to induced economic	Level-2	Adani foundation is taking up several girl child education programs as part of CSR activities to create awareness about girl child protection.	Suitable regional level awareness programs on the girl child protection and encouragement programs in line with state and national policies shall be adopted under Corporate Social Responsibility programs in association with district authorities.	APSEZ, Other development projects and District Administration*	Long Term	<p>Major works carried out since April 2018 as a part of CSR activities to create awareness about girl child protection are as below.</p> <ul style="list-style-type: none"> The Adani Foundation provided scholarship support to motivation and encouragement of fishermen boys and girls for higher education under this program. APSEZ provide 100% fees support to girls as a scholarship. This year total 59 students are being facilitated by Adani foundation. Separate sanitation facilities for girl child in schools. Total 8770 haemoglobin screenings of RPA woman and adolescent girls was carried out in year 2017-18. Which helps in controlling anaemia in women and indirectly malnutrition. Beti Vadhavo Programme was organized in 32 Villages in the presence of Village Sarpanch and other leaders in year 2017-18. We explained people about the various topics i.e. importance of girl child, Sex Ratio, Gender Equality and laws regarding Child abortion. This initiative was well accepted by community and we have observed a visible change in their mindset. We have facilitated 560 daughters with Kit (Small Bed sheet, Mosquito net, Soap and Cream with nutritious food for mother) To create awareness about health, personal hygiene, child education and nutritional diet in fishermen community, various awareness programs have been organized. During the year various activity like, Covid-19 awareness in village & Slum Area, Menstrual Hygiene Day, Breastfeeding

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	growth in the region.						<p>Week, National Deworming Day, National Nutrition Month had been celebrated.</p> <ul style="list-style-type: none"> Project Suposhan is initiated with the Motive ... Curb malnutrition amongst Children, Adolescent girls and Women in our CSR villages. <ul style="list-style-type: none"> ✓ 100 beneficiaries covered in Menstrual Hygiene Day - with slogan called "RED-ACHHA HAI" ✓ 204 beneficiaries covered in Breastfeeding Week ✓ 320 beneficiaries covered in National Deworming Day ✓ 20 villages covered in celebration of NATIONAL NUTRITION MONTH ✓ 42 FAMILY COUNSELLING To reduce malnutrition and anemia amongst Children 95 % & adolescent girls and pregnant & lactating women by 70 % in three years Reduction IMR and MMR Support Awareness & Cover 100 % Vaccination taken by Child & women. SuPoshan Thanksgiving program was organized. In this webinar DDO, CDPO Mundra and other dignitaries remained present and appreciated the efforts to overcome malnourishment in Mundra and Bitta. The National girl child day was celebrated with ICDC Department with Vahli Dikri Yojna form filling, paediatric health camp and Baby health kit distribution at Mundra. Mrs. Ashaben-CDPO Mundra was remain present in this event. Total 61 forms has received approval letter from GOG and 15 forms filled upon the same day. <p>About Rs. 45.54 Cr has been spent on various CSR activities in the Mundra region since April 2018 till Mar 2021 including cost of community health and education for woman and girl child.</p>

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10.4	Due to economic growth leading to rapid urbanization, which prompts the need for healthcare facilities in the region. For an influx of 6 lakh people from APSEZ operations and additional 3 Lakh from induced growth by the year by 2030 (fully developed scenario), total hospitals facilities with about 540 beds	Level-2	Adani hospitals, Mundra is setup by Adani group near Samudra township with a goal to provide primary and secondary health care services to Adani group employees and the local populace of Mundra. The existing 100 bed Adani hospital at Mundra has been catering the services ranging from wellness and preventative care.	APSEZ will explore other possibilities to augment the primary and secondary healthcare facilities in future depending on the growth scenario at APSEZ development.	APSEZ	Long Term	<p>Adani hospitals (Multi-specialty), Mundra is having 100 bed facility and same is setup by Adani group near Samudra township.</p> <p>Primary health center and community health center are in place within the Mundra taluka.</p> <p>Other than this Adani foundation is doing various activities as part of community health. The details of last year are as below.</p> <p><u>Community Health – Mundra</u> <u>Community Health – Mundra</u></p> <table border="1"><thead><tr><th colspan="4">Community Health All Project Patient Details</th></tr><tr><th>Project</th><th>Direct Beneficiary</th><th>In-Direct Beneficiary</th><th>No. of Villages</th></tr></thead><tbody><tr><td>Medical Mobile van</td><td>16611</td><td>66476</td><td>33</td></tr><tr><td>Rural Clinic</td><td>15797</td><td>63192</td><td>11</td></tr><tr><td>Medical Supports</td><td>1008</td><td>5040</td><td>63</td></tr><tr><td>Dialysis Supports</td><td>474</td><td>2370</td><td>63</td></tr><tr><td>Senior citizen</td><td>5836</td><td>17508</td><td>63</td></tr><tr><td>Health camp</td><td>19461</td><td>58383</td><td>11</td></tr><tr><td>TOTAL</td><td>59187</td><td>212979</td><td></td></tr></tbody></table> <ul style="list-style-type: none">• 11 Rural Clinic – 8 from Mundra & 3 from Anjar block treated; 8196 patients.• The mobile health care unit cover 25 villages and 07 fishermen settlements. Around 90 types of general life saving medicines are available in these units.• Rural Dispensaries are established where there is a gap in the healthcare services. The Adani Foundation operates Rural Dispensaries in 7 villages of Mundra block, 03 villages of Anjar block and 1 in Mandvi Block. Mobile dispensary and rural clinics provide	Community Health All Project Patient Details				Project	Direct Beneficiary	In-Direct Beneficiary	No. of Villages	Medical Mobile van	16611	66476	33	Rural Clinic	15797	63192	11	Medical Supports	1008	5040	63	Dialysis Supports	474	2370	63	Senior citizen	5836	17508	63	Health camp	19461	58383	11	TOTAL	59187	212979	
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Project	Direct Beneficiary	In-Direct Beneficiary	No. of Villages																																								
Medical Mobile van	16611	66476	33																																								
Rural Clinic	15797	63192	11																																								
Medical Supports	1008	5040	63																																								
Dialysis Supports	474	2370	63																																								
Senior citizen	5836	17508	63																																								
Health camp	19461	58383	11																																								
TOTAL	59187	212979																																									

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ ESMP	Responsible agency	Timeframe for implementation	Compliance
	would be required.						<p>health services with token charge of 10/- rupees per patient daily by a doctor and a volunteer.</p> <ul style="list-style-type: none"> During the year 2020-21, total 5836 transactions were done by 8711 card holders of 68 villages of Mundra Taluka. They received cash less medical services under Health Card to Senior Citizen project. In the year of 2020-21 total 97 people had been benefitted by various kind of speciality camp and needy and screened patients are treated in Adani Hospital. Total 20959 patients benefited in year 2020-21 from 55 different villages in Adani Hospital, Mundra. The TDO, THO, Flying Foundation, Ayurved Dept. has support in UKADO and Vitamin-C tablets distribution activities. Total 18240 people had get benefits of UKADO and Vitamin-C tablets. <p>Adani foundation has spent approx. INR 4554.45 lakhs from April – 2018 to Mar – 2021 for CSR activities cost including cost of community health.</p> <p>Present Hospital facilities are adequate to avail the medical treatment for Mundra region considering present development. Other Occupational Health centres, primary health centres and community health centres are also in place in Mundra to take care the people residing in Mundra. Adani group is also operating high quality health care services to the people of Kutch at G. K. General Hospital, Bhuj having 750 beds facilities on public private partnership (PPP) model, which is 60 km far from Mundra.</p> <p>APSEZ will explore other possibilities to augment the primary and secondary healthcare facilities in future depending on the future development at APSEZ.</p>
	Due to rapid economic		APSEZ has been giving preferences to people from Gujarat				<p>4830 Man-days work was provided over 236 Fishermen family during this six months by Adani Hospital. The Foundation has also supported Pagadiya fishermen as painting laborers by providing them with employment and job in various fields.</p>

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ E SMP	Responsible agency	Timeframe for implementation	Compliance
10.5	<p>development in the region, several employment opportunities can be generated to the local people.</p> <p>When the area is fully developed by the end of 2030, the working population of the Mundra taluk would increase from current level of 55,000 to as high as 4,00,000, which will be 45% of the total envisaged population</p>		<p>for providing employment opportunities based on eligibility and skills. In Mundra, special programmes have been conducted by Adani Foundation to enhance the employability of youth from fisherfolk communities. Based on the need assessment results, several livelihood options have been introduced by the Adani Skill Development Centre, Mundra. In these centres, youth can join and get vocational training for a number of technical and non-technical skills.</p> <p>An industrial Training Institute is set up at APSEZ, Mundra, to enhance the skill levels of the local youth to maximum possible extent.</p>	APSEZ is committed to provide support for fishermen livelihood activities and has submitted a detailed 5 years plan to MoEF&CC with a total budget of Rs.13.5 Cr.	APSEZ	Short Term	<p>Adani Skill Development Centre (ASDC) is playing a pivotal role in implementing sustainable development in the state. The objective of this Centre is to impart different kinds of training to the students of 10th, 12th, college or ITI from surrounding areas.</p> <ul style="list-style-type: none"> During this year Total 606 (Soft Skill Training: 330 & Technical Training: 276) people trained in various trainings to enhance socio economic development. Till date we admitted 221 candidates in domain courses and 263 candidates in non-domain courses. Now we started offline training with following all Covid-19 related guidelines. Online mud work training has been organized by ASDC Mundra, after training 28 students became self-employed. Beneficiaries of fisherman communities till date <ol style="list-style-type: none"> 444 Book Support 733 Vehicle transportation from Bandar to AVMB 86 Cycle Support 481 Scholarship Support 280 15 Potable water provision 370 Youth Employment 2561 Fishing Net & Equipment Support 195 Linkages with Fisheries Scheme 3504 Ramaotsav Community Engagement 17 Fisherman Sea Weed Culture. <p>APSEZ is carrying out various initiatives specific to the Fisherfolk community which includes:</p> <ul style="list-style-type: none"> Vidya Deep Yojana Vidya Sahay Yojana – Scholarship Support Adani Vidya Mandir Fisherman Approach in SEZ Machhimar Arogya Yojana

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ ESMP	Responsible agency	Timeframe for implementation	Compliance
	in Mundra Taluk by the end of 2030.						<ul style="list-style-type: none"> • Machhimar Kaushalya Vardhan Yojana • Machhimar Sadhan Sahay Yojana • Machhimar Awas Yojana • Machhimar Shudhh Jal Yojana • Sughad Yojana • Machhimar Akshay kiran Yojana • Machhimar Suraksha Yojana • Machhimar Ajivika Uparjan Yojana • Bandar Svachhata Yojana <p>These initiatives are planned for the period 2016 – 2021 with a committed expense of INR 13.5 Cr as submitted earlier in detail in the report namely “Silent Transformation of Fisher folk at Mundra”,.</p> <p>Till, Mar'21 approx. 9.42 Cr. INR, has already been spent in support for fishermen livelihood activities.</p>

ANNEXURE – A



POLLUCON LABORATORIES PVT. LTD.

TEST REPORT FOR WATER SAMPLE

QF/7.8/19-WT

Page: 1 of 1

Customer's Name and Address :

**M/s. ADANI PORT AND SPECIAL ECONOMIC ZONE LIMITED
C/O. ENVIRONMENT CELL, 3rd FLOOR,
ADANI HOUSE NAVINAL ISLAND, VILLAGE-MUNDRA,
TALUKA-MUNDRA, DIST-KUTCH-370421**

Test Report No. : **PL/AM 0451**

Issue Date : **10/09/2020**

Customer's Ref. : **As Per W.O.**

Description of Sample : **W.B. Dump Pond Water**

Sampling Date : **21/08/2020**

Quantity/No. of Samples : **05 Lit/One**

Sampling By : **Pollucon Laboratories Pvt. Ltd.**

Sampling Procedure : **Grab**

Sample Receipt Date : **22/08/2020**

Lab ID : **AM/2008/137Q**

Packing/ Seal : **Sealed**

Test Parameters : **As per table**

Date of Starting of Test : **22/08/2020**

Date of Completion : **31/09/2020**

RESULT TABLE

SR NO	TEST PARAMETERS	UNIT	RESULT	TEST METHOD
			W.B. Dump Pond Water	
1	Colour	Co-pt	5.0	IS 3025 (Part - 4) 2017
2	Odour	--	Agreeable	IS 3025 (Part - 5) 2018
3	Total Suspended Solids	mg/L	14	IS 3025 (PART - 17) 2017
4	pH	--	2.84	IS 3025 (Part - 11) 2017 Electrometric Method
5	Temperature	°C	30.2	IS 3025 (PART-9) 2017
6	Oil & Grease	mg/L	Not Detected	IS 3025 (Part-39) 2019
7	Total Residual Chlorine	mg/L	Not Detected	APHA(23 rd Edition 2017) 4500 Cl G-4PD colorimetric method
8	Ammonical Nitrogen	mg/L	1.65	IS 3025 (Part-34) 2019 Nesslerization Method
9	BOD	mg/L	5.0	IS 3025 (PART-44) 2019
10	COD	mg/L	52	APHA (23rd Edition 2017) 5220 B Open Reflux Method
11	Arsenic as As	mg/L	Not Detected	APHA (23 rd Edition 2017) 3114 B
11	Mercury as Hg	mg/L	Not Detected	APHA (23 rd Edition 2017) 3112 B
12	Lead as Pb	mg/L	Not Detected	APHA (23 rd Edition 2017) 3111 B
13	Cadmium as Cd	mg/L	Not Detected	APHA (23 rd Edition 2017) 3111 B

Continue...

Mack

**MackySuraliwala
Sr. Scientist**

Arun

**Dr. ArunBajpai
Lab Manager (Q)**

Note: This report is subject to terms & conditions mentioned overleaf.

● ISO/IEC 17025 Approved Lab ● Recognized by MoEF, New Delhi Under ● CPCB approved ● ISO 14001 : 2004 ● CHIRAS 10001 : 2007 ● ISO 9001 : 2008
Env. 12 of Environmental (Protection) Act-1986 ● Schedule II auditor

"Pollucon House", Plot No.5/E, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gayatri Farsan Mart,
Navjivan Circle,Udhana Magdala Road, Surat-395007, Gujarat, India.

Phone : 0261-2635792, 0261-2635791, 0261-2635775, 0701605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com



TEST REPORT FOR WATER SAMPLE

QF/7.8/19-WT

Page: 1 of 1

Customer's Name and Address :

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TALUKA-MUNDRA, DIST-KUTCH-370421

Test Report No. : **PL/AM 0451**

Issue Date : **10/09/2020**

Customer's Ref. : **As Per W.O.**

RESULT TABLE

SR NO	TEST PARAMETERS	UNIT	RESULT	TEST METHOD
			W.B. DUMP Pond Water	
14	Hexavalent Chromium as Cr ⁺⁶	mg/L	Not Detected	APHA (23 rd Edition 2017) 3500 Cr B Colorimetric method
15	Total Chromium	mg/L	Not Detected	APHA (23 rd Edition 2017) 3500 Cr B Colorimetric method
16	Copper as Cu	mg/L	Not Detected	APHA (23 rd Edition 2017) 3111 B
17	Zinc as Zn	mg/L	Not Detected	APHA (23 rd Edition 2017) 3111 B
18	Selenium as Se	mg/L	Not Detected	APHA (23 rd Edition 2017) 3114 B
19	Nickel as Ni	mg/L	Not Detected	APHA (23 rd Edition 2017) 3111 B
20	Cyanide as CN	mg/L	Not Detected	APHA (23 rd Edition 2017) 4500 CN E Colorimetric Method
21	Fluorides as F	mg/L	0.55	APHA (23 rd Edition 2017) 4500 F D SPADNS Method
22	Dissolved Phosphate as P	mg/L	0.015	IS 3025 (Part-14) 2012
23	Sulphides as S	mg/L	Not Detected	APHA (23 rd Edition 2017) 4500 S2 F Iodometric method
24	Phenolic Compound as C ₆ H ₅ OH	mg/L	Not Detected	IS 3025 (Part - 43) 2019 Aminoantipyrine Method
25	Bio-assay Test	%	95%	OECD 203 B/TS: 6582-2001
26	Manganese as Mn	mg/L	0.06	IS 3025 (Part - 46) 2019 EDTA Method
27	Iron as Fe	mg/L	0.11	APHA (23 rd Edition 2017) 3111 B
28	Vanadium as V	mg/L	Not Detected	APHA (23 rd Edition 2017) 3111 B
29	Nitrate Nitrogen as N	mg/L	0.15	IS 3025 (Part-34) 2019 Spectrophotometry

Not Detected Limit: Cr⁺⁶ : 0.1 mg/L, Total Chromium : 0.1 mg/L, Iron as Fe : 0.3 mg/L, Manganese as Mn : 0.05 mg/L, Lead as Pb : 0.05 mg/L, Cadmium as Cd : 0.004 mg/L, Total Chromium : 0.05 mg/L, Copper as Cu : 0.05 mg/L, Zinc : 0.05 mg/L, Selenium as Se : 0.05 mg/L, Hexavalent Chromium as Cr⁺⁶ : 0.05 mg/L, Nickel as Ni : 0.05 mg/L, Cyanide as CN : 0.05 mg/L, Sulphides as S : 0.05 mg/L, Phenolic Compound as C₆H₅OH : 0.05 mg/L, Vanadium as V : 0.05 mg/L

Macky Suraliwala
Sr. Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● ISO 9001 : 2015 Approved Lab ● Recognized by MoEF, New Delhi Under Sec. 12 of Environmental Protection Act-1986 ● ISO 14001 : 2015 ● CEHAT 14001 : 2017 ● ISO 45001 : 2018 ● CPCR approved ● ISO 16001 : 2015 ● ISO 26001 : 2017 ● ISO 50001 : 2018

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