

Sathish Kumar R

From: Sandeep Jaiswal
Sent: 20 May 2020 14:38
To: rosz.bng-mefcc@gov.in
Cc: monitoring-ec@nic.in; zobangalore.cpcb@nic.in; goapcb@gspcb.in; goacoastalzone@gmail.com; mptgoa@mptgoa.com; envcellmpt@gmail.com; Manguesh Sangodkar; Sathish Kumar R; Shabdendu Pathak
Subject: EP-12.1/0/2013-14/Goa/1129-October-2019 to March-2020.
Attachments: EC_CRZ Compliance_AMPTPL_Oct_2019 to Mar-2020.pdf
Importance: High
Categories: AMPTPL

Respected Sir/ Madam,

Please find attached the Half Yearly EC & CRZ Compliance Report for "**Adani Mormugao Port Terminal Pvt. Ltd.**", Goa for the period "**October-2019 to March-2020**".

Sandeep Jaiswal

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Mormugao Port , Goa , India



Thinking big
Doing better

Our values: Courage, Trust and Commitment

Ref: AMPTPL/2020/ 386

Date: 20.05.2020

To

✓ **Additional Chief Conservator of Forests (C),**
Ministry of Environment, Forest and Climate Change,
Regional Office (SZ), Kendriya Sadan,
4th Floor, E&F Wings, 17th Main Road,
Koramangala II Block, Bangalore-560034 (Karnataka)
rosz.bng-mefcc@gov.in

Dear Sir,

Sub : Half yearly Compliance report of Environment and CRZ clearance for modernization and operation of Berth – 07 in M/s Mormugao Port for the period of October 2019 to March 2020 – Reg.

Ref : Environment and CRZ clearance for modernization of Berth No. – 07 for coal handling granted to M/s Mormugao Port Trust vide letter dated 30th December 2013 bearing F. No. 10-39/2009-IA.III.

Adani Mormugao Port Terminal Private Limited is concessionaire of M/s Mormugao Port Trust for Berth No. – 7. Please find enclosed herewith the compliance report to the conditions stipulated in the cited reference for the Half Yearly period **October 2019 to March 2020** in soft copy for your kind reference.

Thanking You

Yours Faithfully,

For **M/s Adani Mormugao Port Terminal Private Limited**




Authorized Signatory


Copy to:

1. **The Director (Monitoring-IA-III Division),** Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Jor Bagh, New Delhi – 110003.
2. **The Zonal Officer,** Central Pollution Control Board, 1st & 2nd Floor, Nisaraga Bhawan, A Block, Thimmaiah Main Road, 7th D Cross, Shivanagar, opposite Pushpanjali theatre, Bengaluru – 560010
3. **The Member Secretary,** Goa State Pollution Control Board, Nr. Pilerne Industrial Estate, Opp. Saligao Seminary, Saligao – Bardez, Goa – 403511
4. **The Member Secretary,** Goa Coastal Zone Management Authority (GCZMA) 1st Floor, Pt. Deendayal Upadhyay Bhavan, Behind Pundalik Devasthan, Parvorim.
5. **The Chairman,** Mormugao Port Trust, Administrative Office, Headland Sada, Mormugao, Goa – 403804.



	Adani Murmugao Port Terminal Pvt. Ltd.	From : October 2019 To: March 2020
Compliance to the conditions stipulated in Environment and CRZ clearance.		

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013		
Sr. No.	Conditions	Compliance
6	Specific Conditions	
i	"Consent for Establishment" shall be obtained from Goa 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.	Complied, Copy of Consent for Establishment (CTE) submitted as annexure in six monthly compliance report dated 25th November, 2014. All construction works completed and terminal is in operation with valid Consent from GSPCB (No.12/2019-PCB/347405/R0002737, dated 24/03/2020 valid up to 31/01/2025)
ii	The project proponent shall provide lining for collection of run off from coal stockyard and the leachate shall be treated before disposal.	Complied, Runoff from Coal Stock Yard is being collected in RCC dump pond provided with proper lining. Settled water from dump pond is being reused for dust suppression and settled coal solid particles are sent back to coal stock piles.
iii	The project proponent shall provide dry fog and sprinkling systems for effective dust suppression.	Complied For effective dust suppression following measures are provided: <ul style="list-style-type: none"> • 224 Nos. of dry fog dust suppression system have been provided in conveyor system and at all transfer points. • 43 Nos. Automatic Water Sprinklers have been provided at coal stock yard for dust suppression. • 02 Nos. Mist Canon provided. (one is mobile canon and other one tyre mounted) 
iv	Entire transportation of coal shall be in closed conveyor.	Complied, The coal is being transported through covered conveyor from jetty to silo/ stock yard. AMPTPL has provided 2700 meters long covered conveyor system from jetty to silo including 11 closed Transfer Points provided with Dry Fog Dust Suppression (DFDS) nozzles.
v	There shall be no washing of conveyor belt	Complied No washing of Conveyor belt is done.




	Adani Murmugao Port Terminal Pvt. Ltd.	From : October 2019 To: March 2020
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Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013		
Sr. No.	Conditions	Compliance
vi	The project proponent shall provide wind screen min 15 m height fabric HDPE all along the periphery. The height shall be designed taking into account the wind velocity modelling etc. Also explore creepers in consultation with forest department.	<p>Complied Wind screen of MS structure along with HDPE fabric/perforated sheet of 15 meters height has been provided along the coal stacking yard facility taking into account the wind velocity. Wind screen has been covered with agronet.</p> 
vii	Coal shall be kept under moist conditions using water sprinklers. Transportation shall be in closed conveyors with water spray.	<p>Complied The coal is being stored under the moist condition. Jet Sprinklers are provided for the same. Coal is being transported through covered conveyors with inbuilt dry fog dust suppression system.</p>
viii	All the conditions stipulated by Goa Coastal Zone Management Authority (GCZMA) vide letter No. GCZMA/S/13-14/09/360 dated 07.06.2013, shall be complied with.	<p>Complied.</p>
ix	Periodical study on shore line changes shall be conducted and mitigation carried out if necessary. The details shall be submitted along with the six monthly monitoring reports.	<p>Not applicable This is an old berth within the existing premises of MPT and only modernization activity has been done.</p>
x	Oil spills if any shall be properly collected and disposed as per the Rules. Proper Oil Contingency Management Plan shall be put in place.	<p>Complied., AMPTPL is handling dry cargo only such as coal. However, AMPTPL is abiding by the Oil Spill Contingency Management Plan prepared by M/s MPT. (No such incident occurred till date)</p>

	Adani Murmugao Port Terminal Pvt. Ltd.	From : October 2019 To: March 2020
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Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013		
Sr. No.	Conditions	Compliance
xi	All the conditions stipulated in the earlier Clearances including the recommendations of Environment Management Plan, Disaster Management Plan shall be strictly complied with	Noted and being complied. Compliance of earlier clearance is being submitted by M/s MPT. All recommendations made in the Environment Management Plan as contained in the Environment Impact Assessment of the project are covered and effectively implemented.
xii	Cargo shall be unloaded directly into hopper from the ship and transported to the stack yards through closed conveyor system only. Inbuilt dust suppression systems shall be provided at hoppers and all the transfer points / storage yards. Cargo shall not be unloaded directly onto the Berth. Water meters shall be provided at different locations to record the consumption of water used for dust suppression and daily log shall be maintained.	Complied, Coal is being unloaded directly into hopper from the ship and transported to the stack yards through closed conveyor system. Inbuilt dust suppression system has been provided in hoppers, transfer towers and storage yards to avoid fugitive emissions. Coal cargo is not being unloaded directly onto the berth. AMPTPL has installed water meters and log sheet is being maintained to record water consumption in dust suppression system.
		 

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Sr. No.	Conditions	Compliance
xiii	At least 15 m width of green belt along the periphery and 15 m width along the stockyard shall be undertaken including plantation of mangroves in consultation with Forest Department.	<p>Complied/Being Complied</p> <p>Green belt with suitable native species has been developed, along the periphery and coal stock yard. Till date about 29,335 nos. (1265 nos. planted during this compliance period) plants have been planted in port premises and survival rate is well maintained. The plant species includes Conocarpus, Coconut, Palm, etc. There are no mangroves in the vicinity of Berth No. 7.</p>    
iv	The dredge material shall be reused for low level rising wherever possible and excess shall be dumped into sea at the designated dumping areas identified based on mathematical model studies.	<p>Complied,</p> <p>Construction of the project already completed and currently terminal is in operation.</p>

	Adani Murmugao Port Terminal Pvt. Ltd.	From : October 2019 To: March 2020
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Sr. No.	Conditions	Compliance
xv	To prevent discharge of sewage and other liquid wastes including ballast into marine environment, adequate system for collection, treatment and disposal of liquid wastes must be provided.	Complied There is no discharge of sewage and other liquid waste into marine environment. The domestic sewage is being collected in septic tanks provided within the premises of AMPTPL and sent to Sewage Treatment Plant of PWD at Baina for further treatment. Ballast water is not being taken by AMPTPL.
xvi	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach; and no effluent or solid wastes shall be discharged on the beach.	Complied, The domestic sewage is being collected in septic tanks provided within the premises of AMPTPL and sent to Sewage Treatment Plant of PWD at Baina for further treatment. Solid waste generated is properly segregated, stored and disposed to local authorities in line to Solid Waste Management Rules 2016 as amended. No effluent or solid wastes is being discharged into the water or on the beach.
xvii	The quality of treated effluents, solid wastes, emissions and noise levels and the like, from project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board under the Environment (Protection) Act 1986	Complied Regular Environmental Monitoring is carried out, to assess the quality of treated effluents from STP, Ambient Air Quality, Noise level, DG set through NABL accredited and MoEF & CC recognized laboratory. Results for all the monitoring parameters are within the prescribed limit. Summary of the monitoring report for the period October 2019 to March 2020 is enclosed as Annexure .
xviii	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.	Complied Compliance submitted along with the Half Yearly compliance report for the period April 2018 to September 2018.
xix	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purpose.	Complied, Separate budget for implementation of Environment Management Plan is in place and it is not diverted for any other purpose. Budget allocated for implementation of EMP for FY 19-20 is 39.00 Lakhs. A brief summary of environmental expenditure during the compliance period is given below.

	Adani Murmugao Port Terminal Pvt. Ltd.	From : October 2019 To: March 2020
Compliance to the conditions stipulated in Environment and CRZ clearance.		

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013				
Sr. No.	Conditions	Compliance		
		S. No.	Description of Work	Amount Spent lakhs (Rs.)
		1	Environment Quality Monitoring (Pollucon)	8.66
		2	Broad Band for CAAQMS connectivity.	0.20
		3	O & M and repair of CAAQMS	2.50
		4	Green belt Maintenance & Development	12.00
		5	Electricity charges of CAAQMS	0.12
		6	Environmental related training	0.50
xx	The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive	Complied AMPTPL is having well structured Environment Management Cell staffed with qualified manpower and well supported by team at Head Office in Ahmedabad for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.		
7. General Conditions				
i	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Compiled, There was no digging activity during the compliance period. Construction activity is completed and project is in operational phase.		
ii	Full support shall be extended to the officers of this Ministry/Regional Office at Bangalore by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Complied. Full support is being extended to the officers of Ministry/Regional Office, as well as officers of Central and State Pollution Control Board during their visit. GSPCB officials have visited our terminal during the Compliance period. Full support was extended during their visit. The same shall be continued in future as well.		
iii	A six-monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bangalore regarding the implementation of the stipulated conditions.	Complied Six monthly EC & CRZ clearance Compliance reports of the stipulated conditions are regularly submitted to Regional Office of Ministry at Bengaluru, and other authorities (CPCB, GSPCB, GCZMA, MoEF & CC, MPT etc.). Last Compliance report for the period April 2019-September 2019 was submitted vide letter no. AMPTPL/2019/267 dated 26.11.2019.		
iv	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.	Noted for Compliance.		

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Sr. No.	Conditions	Compliance
v	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Noted.
vi	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.	Noted. There is no change in project profile or implementation agency.
vii	The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Complied Financial Closure Date: 14 th May, 2010 Concession agreement date with MPT: 22 nd September, 2009
viii	A copy of the clearance letter shall be marked to concern Panchayat/local NGO, if any, from whom any suggestion/ representation have been made, received while processing the proposal.	Complied Complied by Murmugao Port Trust (MPT).
ix	Goa State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.	Noted. This condition does not pertain to project proponent. However, it is learnt that Goa State Pollution Control Board has complied with the same.
8.	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 1994, including the amendments and rules made thereafter.	Noted for Compliance.
9.	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.	Complied All applicable clearances from the concerned statutory authorities have been obtained.

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Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013		
Sr. No.	Conditions	Compliance
10.	The project proponent shall 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 Environmental and CRZ Clearance and copies of clearance letters are available with the Goa State 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 Bangalore.	Complied MPT has given advertisement on 11 th January, 2014 in the newspapers mentioned below. 1) Sunaparant 2) Times of India, Goa. Copy of the same has already been submitted to RO-MoEF&CC (Bangalore).
11.	This 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.	Noted.
12.	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Complied Copy of six monthly EC&CRZ compliance report is being regularly uploaded by AMPTPL on company website at https://www.adaniports.com/ports-downloads?port=Murmugao-Terminal
13.	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.	Noted.
14.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisaad/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 proponent.	Complied The same has been Complied by Murmugao Port Trust.

	Adani Murmugao Port Terminal Pvt. Ltd.	From : October 2019 To: March 2020
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Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013		
Sr. No.	Conditions	Compliance
15.	The proponent shall upload the status of compliance of the stipulated Clearance 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>AMPTPL is regularly uploading the status of compliance of the stipulated clearance conditions including results of monitored data in the company website. The same can be viewed at https://www.adaniports.com/ports-downloads?port=Murmugao-Terminal</p> <p>Six monthly compliance report is regularly submitted to Regional office of MoEF&CC at Bangalore, CPCB Zonal office, SPCB and other authorities. Last compliance report for the period April 2019-September 2019 was submitted vide letter no. AMPTPL/2019/267 dated 26.11.2019.</p>
16.	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 Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of Clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	<p>Complied</p> <p>Environment Statement in Form V is submitted to Goa State Pollution Control Board for each financial year. Environment Statement for the year FY 2018-19 has been submitted online on 25.09.2019 vide Application No. 327865 and has also been uploaded on company website.</p> <p>Copy of the same is available on company website at https://www.adaniports.com/ports-downloads?port=Murmugao-Terminal</p>

"ENVIRONMENTAL MONITORING REPORT"

FOR



**ADANI MURMUGAO PORT TERMINAL PVT. LTD. (AMPTPL),
GROUND FLOOR, PORT USERS COMPLEX, NEAR STATE BANK OF INDIA,
MORMUGAO HARBOUR, GOA 403802 INDIA – TEL 0832 2594253**

OCTOBER-2019 TO MARCH-2020

PREPARED BY:



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TC-5945



ISO 9001:2015



ISO 14001:2015



OHSAS 18001:2007

"ENVIRONMENT MONITORING REPORT"

FOR



**ADANI MURMUGAO PORT TERMINAL PVT. LTD. (AMPTPL),
GROUND FLOOR, PORT USERS COMPLEX, NEAR STATE BANK OF INDIA,
MORMUGAO HARBOUR, GOA 403802 INDIA – TEL 0832 2594253**

For and on behalf of Pollucon Laboratories Pvt. Ltd., Surat

Approved by : Dr. Arun Bajpai

Signed

: 



Designation :Lab Manager (Q)

This report has been prepared by Pollucon laboratories Pvt. Ltd. with all reasonable skills, care and diligence, incorporating our General Terms and Conditions of Business and taking account of the resources devoted, flow chart, diagram etc. is provided by the client itself.

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CHAPTER – 1

AMBIENT AIR QUALITY MONITORING

MONITORING PERIOD: OCTOBER-2019 TO MARCH-2020

Results of AAQM for Sada Village[OCTOBER-2019 TO MARCH-2020]

Sr. No.	Date of sampling	Particulate Matter (PM ₁₀) µg/m ³	Particulate Matter (PM _{2.5}) µg/m ³	Lead as Pb µg/m ³	Benzo (a) Pyrene (BaP)-particulate phase only ng/m ³	Arsenic as As ng/m ³	Nickel as Ni ng/m ³	Carbon Monoxide as CO mg/m ³	Benzene as C ₆ H ₆ µg/m ³	Ammonia (NH ₃) µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Oxides of Nitrogen (NO ₂) µg/m ³	Ozone (O ₃) µg/m ³
1	03-10-2019	65.39	31.93	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	15.39	16.38	30.33	10.50
2	07-10-2019	59.39	25.70	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	19.86	11.57	18.64	17.53
3	10-10-2019	72.61	38.67	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	23.57	13.61	26.23	12.37
4	14-10-2019	64.32	28.67	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	20.58	15.64	23.55	14.55
5	17-10-2019	50.36	22.47	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	24.54	8.32	20.50	11.28
6	21-10-2019	46.56	15.24	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	18.60	17.35	27.69	18.69
7	24-10-2019	55.34	20.53	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	14.59	6.54	15.67	16.40
8	28-10-2019	61.57	26.44	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	21.55	9.63	25.62	13.50
9	31-10-2019	76.28	29.58	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	10.34	7.54	16.52	9.84
10	04-11-2019	76.50	45.65	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	17.61	11.38	24.58	16.33
11	07-11-2019	54.62	24.83	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	12.26	7.62	16.39	10.59
12	11-11-2019	70.20	33.17	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	20.20	9.61	21.55	19.24
13	14-11-2019	63.67	26.27	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	25.39	12.40	13.65	18.64
14	18-11-2019	55.60	20.33	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	19.57	14.26	26.47	14.24
15	21-11-2019	60.25	38.58	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	28.33	10.28	23.47	12.69
16	25-11-2019	80.62	43.67	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	10.54	16.51	17.62	15.67
17	28-11-2019	58.42	25.65	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	24.37	8.28	20.26	11.54
18	02-12-2019	69.55	38.54	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	13.56	18.63	32.53	13.53
19	05-12-2019	55.33	26.44	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	17.56	10.27	27.64	11.63
20	09-12-2019	77.62	35.45	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	21.22	14.63	19.25	16.32
21	12-12-2019	52.43	23.59	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	14.52	6.52	15.66	20.34
22	16-12-2019	60.58	31.27	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	27.65	9.22	21.55	15.69
23	19-12-2019	56.33	22.64	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	20.24	11.53	28.42	21.55
24	23-12-2019	66.45	37.68	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	24.58	8.23	16.33	12.56
25	26-12-2019	72.65	30.24	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	31.28	13.44	22.42	17.27
26	30-12-2019	64.26	32.35	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	10.66	7.56	14.88	19.32
27	02-01-2020	67.63	32.39	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	10.32	16.64	23.60	18.59
28	06-01-2020	82.60	44.49	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	21.22	11.19	19.59	12.61
29	09-01-2020	64.31	28.38	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	26.32	6.32	16.30	10.50
30	13-01-2020	56.30	25.28	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	19.53	9.20	24.49	16.41
31	16-01-2020	61.23	30.41	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	12.60	12.46	33.40	11.21
32	20-01-2020	51.22	26.48	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	16.34	8.58	17.31	13.59
33	23-01-2020	65.71	31.52	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	28.54	14.48	21.49	19.40
34	27-01-2020	54.51	24.21	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	23.62	10.52	25.31	22.40

35	30-01-2020	76.50	34.49	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	15.34	15.33	15.49	14.49
36	03-02-2020	62.57	35.43	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	25.35	6.23	16.54	17.25
37	06-02-2020	78.68	42.23	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	18.56	8.21	23.44	14.57
38	10-02-2020	52.85	25.62	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	15.36	16.38	27.53	22.36
39	13-02-2020	63.74	18.65	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	10.22	11.34	20.34	11.53
40	17-02-2020	76.25	41.65	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	26.36	7.51	18.66	18.69
41	20-02-2020	65.58	30.59	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	29.37	10.61	24.23	15.35
42	24-02-2020	51.64	21.53	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	19.32	12.72	17.47	13.55
43	27-02-2020	80.22	34.26	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	24.68	9.56	21.53	19.54
44	02-03-2020	77.76	40.31	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	20.58	10.82	21.33	12.81
45	05-03-2020	51.64	27.62	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	10.34	17.52	27.59	15.35
46	09-03-2020	68.34	38.47	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	27.34	13.51	30.24	11.28
47	12-03-2020	59.82	24.58	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	15.82	7.53	17.82	13.58
48	16-03-2020	65.45	21.74	BDL*	BDL*	BDL*	BDL*	0.92	BDL*	22.38	9.51	28.51	22.38
49	19-03-2020	55.42	29.63	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	19.52	6.51	14.52	14.58

BDL*: - Below Detection Limit: Ozone as O₃ (µg/m³): 10

BDL*: - Below Detection Limit - Lead as Pb (µg/m³): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m³): 0.01

BDL*: - Below Detection Limit - Ammonia NH₃ (µg/m³): 10

BDL*: - Below Detection Limit - Benzene as C₆H₆ (µg/m³): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m³): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m³): 2

BDL*: - Below Detection Limit - Nickel as Ni (ng/m³): 10

CHAPTER – 2

SEA WATER AND SEA SEDIMENTS MONITORING MONITORING PERIOD: OCTOBER-2019 TO MARCH-2020

Results of Sea water Monitoring

SR. NO.	PARAMETERS	UNIT	RESULTS					
Sampling Location			Near Jetty					
GPS Location			15° 24.748'N, 73° 47.938'E					
Date of sampling			17/10/2019		14/11/2019		20/12/2019	
			Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH	--	8.13	8.04	8.32	8.26	8.05	8.01
2	Temperature	°C	30.4	30.1	30.3	29.9	29.8	29.3
3	Total Suspended Solids	mg/L	153	176	198	177	242	259
4	BOD (3 Days @ 27 °C)	mg/L	3.8	Not Detected	4.6	Not Detected	4.1	Not Detected
5	Dissolved Oxygen	mg/L	5.9	5.7	5.8	6	6.2	5.9
6	Salinity	ppt	33.8	34	34.3	33.5	31.8	32.2
7	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
8	Nitrate as NO ₃	µmol/L	1.35	1.58	2.16	2.46	2.93	2.71
9	Nitrite as NO ₂	µmol/L	0.26	0.5	0.17	0.34	0.39	0.3
10	Ammonical Nitrogen as NH ₃	µmol/L	1.48	1.7	2.46	3.1	2.28	2.1
11	Phosphates as PO ₄	µmol/L	1.37	1.61	2.1	2.36	2.46	2.24
12	Total Nitrogen	µmol/L	3.09	3.78	4.79	5.9	5.6	5.11
13	Petroleum Hydrocarbon	µg/L	Not Detected	Not Detected	6.8	Not Detected	9.3	Not Detected
14	Total Dissolved Solids	mg/L	35580	36183	35970	35209	35498	35946
15	COD	mg/L	15	9	20.4	Not Detected	25	Not Detected
17	Flora and Fauna							
17.1	Primary Productivity	mgC/L/day	7.99	5.98	13.5	9.45	10.58	9.67
18	Phytoplankton							
18.1	Chlorophyll	mg/m ³	2.67	2.34	2.78	2.5	2.72	2.34
18.2	Phaeophytin	mg/m ³	1.22	2.29	1.04	2.01	1.46	2.17
18.3	Cell Count	No. x 10 ³ /L	184	78	174	58	190	78
18.4	Name of Group Number and name of group species of each group	--	Coscinodiscus sp. Rhizosolenia sp. Pleurosigma sp. Thalassiosira sp.	Fragillaria sp. Nitzschia sp. ceratium sp	Pleurosigma sp. Rhizosolenia sp. Odontella sp. Skeletonema sp.	Thalassionema sp. Ceratium sp. Nitzschia sp.	Skeletonema sp. Thalassionema sp. Ceratium sp. Pleurosigma sp. Nitzschia sp.	Nitzschia sp. Rhizosolenia sp. Pleurosigma sp.
19	Zooplanktons							
19.1	Abundance (Population)	Nox10 ³ /100m ³	63		55		62	
19.2	Name of Group Number and name of group species of each group	--	Copepods Harpacticoida Polychaetes		Bivalves Copepods Gastropods		Calanoida Copepods Crustaceans	
19.3	Total Biomass	mL/100	3.7		3.95		4.1	

		m ³			
20	Microbiological Parameters				
20.1	Total Bacterial Count	CFU/mL	1780	1620	1580
20.2	Total Coliform	/mL	Absent	Absent	Absent
20.3	E.coli	/mL	Absent	Absent	Absent
20.4	Enterococcus species	/mL	Absent	Absent	Absent
20.5	Salmonella species	/mL	Absent	Absent	Absent
20.6	Shigella species	/mL	Absent	Absent	Absent
20.7	Vibrio species	/mL	Absent	Absent	Absent

BDL*: Below Detection Limit

Results of Sea water Monitoring

SR. NO.	PARAMETERS	UNIT	RESULTS					
Sampling Location			Near Jetty					
GPS Location			15° 24.748' N, 73° 47.938' E					
Date of sampling			14/01/2020		13/02/2020		12/03/2020	
			Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH	--	8.24	8.15	8.28	8.17	8.19	8.14
2	Temperature	°C	29.7	29.5	29.9	29.8	30.3	30
3	Total Suspended Solids	mg/L	164	184	156	189	134	158
4	BOD (3 Days @ 27 °C)	mg/L	3.4	Not Detected	4.2	Not Detected	4.6	Not Detected
5	Dissolved Oxygen	mg/L	5.8	6	5.7	5.9	5.8	5.4
6	Salinity	ppt	34.5	35.8	34.8	35.2	35.4	35.8
7	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
8	Nitrate as NO ₃	µmol/L	3.16	2.84	2.98	2.73	3.16	3.1
9	Nitrite as NO ₂	µmol/L	0.28	0.15	0.49	0.32	1.2	1.12
10	Ammonical Nitrogen as NH ₃	µmol/L	2.59	2.81	2.37	2.53	2.94	2.78
11	Phosphates as PO ₄	µmol/L	2.17	1.94	2.29	2.1	2.34	2.1
12	Total Nitrogen	µmol/L	6.03	5.8	5.84	5.58	7.3	6.32
13	Petroleum Hydrocarbon	µg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
14	Total Dissolved Solids	mg/L	36348	36830	36910	37284	38940	39368
15	COD	mg/L	20	Not Detected	24	Not Detected	28	Not Detected
17	Flora and Fauna							
17.1	Primary Productivity	mgC/L/day	18.9	16.2	19.89	16.65	20.3	18.4
18	Phytoplankton							
18.1	Chlorophyll	mg/m ³	3.79	3.25	3.31	3.04	3.18	2.96
18.2	Phaeophytin	mg/m ³	1.89	2.84	2	2.38	1.9	1.98
18.3	Cell Count	No. x 10 ³ /L	176	106	186	120	142	110
18.4	Name of Group Number and name of group species of each group	--	Ceratium sp. Rhizosolenia sp. Skeletonema sp. Spirulina sp. Ceratoceros sp.	Odontella sp. Thalassionema sp. Navicula sp.	Rhizosolenia sp. Thalassionema sp. Ceratoceros sp. Pleurosigma sp. Ceratium sp.	Fragillaria sp. Nitzschia sp. Navicula sp.	Rhizosolenia sp. Biddulphia sp. Thalassionema sp. Nitzschia sp.	Nitzschia sp. Fragillaria sp. Anabaena sp. Navicula sp.
19	Zooplanktons							
19.1	Abundance (Population)	Nox10 ³ /100m ³	58		55		34	
19.2	Name of Group Number and name of group species of each group	--	Cyclopoida Copepods Crustaceans		Cyclopoida Copepods Mysids		Decapods Polychaetes Crustaceans	

			Polychaetes	Crustaceans	--
19.3	Total Biomass	mL/100 m ³	Cyclopoida Copepods Crustaceans Polychaetes	Cyclopoida Copepods Mysids Crustaceans	Decapods Polychaetes Crustaceans --
20	Microbiological Parameters				
20.1	Total Bacterial Count	CFU/mL	2120	2240	2120
20.2	Total Coliform	/mL	Absent	Absent	Absent
20.3	E.coli	/mL	Absent	Absent	Absent
20.4	Enterococcus species	/mL	Absent	Absent	Absent
20.5	Salmonella species	/mL	Absent	Absent	Absent
20.6	Shigella species	/mL	Absent	Absent	Absent
20.7	Vibrio species	/mL	Absent	Absent	Absent

BDL*: Below Detection Limit

Results of Sea Sediment Monitoring

SR. NO.	PARAMETERS	UNIT	RESULTS					
Sampling Location			Near Jetty					
GPS Location			N 15° 24.748', E 73° 47.938'					
Date of sampling			17/10/2019	14/11/2019	20/12/2019	14/01/2020	13/02/2020	12/03/2020
1	Organic Matter	%	0.8	0.94	0.76	0.7	0.68	0.56
2	Phosphorus as P	µg/g	610	718	843	764	724	634
3	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy
4	Petroleum Hydrocarbon	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
5	Heavy Metals							
5.1	Aluminum as Al	%	4.1	4.65	4.55	4.38	4.65	4.92
5.2	Total Chromium as Cr+3	µg/g	170	258	216	190	183	218
5.3	Manganese as Mn	µg/g	1138	1213	1349	968	998	920
5.4	Iron as Fe	%	4.26	4.95	4.72	4.8	5.95	5.8
5.5	Nickel as Ni	µg/g	58	41.9	31.4	39	31	40
5.6	Copper as Cu	µg/g	49	38.2	29.6	41	46	59
5.7	Zinc as Zn	µg/g	304	236	203	183	164	134
5.8	Lead as Pb	µg/g	2.1	3.1	3.42	2.46	2	1.78
5.9	Mercury as Hg	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
6	Benthic Organisms							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	--	Polychaetes Gastropods Bivalves	Polychaetes Crustaceans	Polychaetes Gastropods Crustaceans	Crustaceans Polychaetes Bivalves	Bivalves Gastropods Crustaceans	Polychaetes Bivalves Crustaceans
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	--	Foraminifera ns	Nematodes Foraminifera ns	Foraminifera ns	Nematodes Foraminifera ns	--	--
6.3	Population	no/m ²	824	704	765	912	794	590

BDL*: Below Detection Limit

CHAPTER – 3

STP WATERMONITORING

MONITORING PERIOD: OCTOBER-2019 TO MARCH-2020

Results of STP water quality monitoring

SR. NO.	PARAMETERS	UNIT	RESULTS					
Sampling Location			Baina Sewerage Plant STP Inlet					
Date of sampling			18/10/2019	13/11/2019	19/12/2019	15/01/2020	14/02/2020	14/03/2020
1	pH	--	7.18	6.99	6.82	6.74	6.86	6.9
2	Total Suspended Solids	mg/L	74	98	116	128	146	130
3	BOD (3 Days @ 27 °C)	mg/L	24	35	46	54	70	65
4	COD	mg/L	90	140	124	230	258	240
5	Oil & Grease	mg/L	6.2	9.8	8.2	6.4	7.2	5.8
6	Residual Free Chlorine	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

SR. NO.	PARAMETERS	UNIT	RESULTS					
Sampling Location			Baina Sewerage Plant STP Outlet					
Date of sampling			18/10/2019	13/11/2019	19/12/2019	15/01/2020	14/02/2020	14/03/2020
1	pH	--	7.41	7.36	7.12	7.36	7.12	7.12
2	Total Suspended Solids	mg/L	22	16	29	20	25	21
3	BOD (3 Days @ 27 °C)	mg/L	8	12	9	12	17	15
4	COD	mg/L	30	42	48	57	65	74
5	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
6	Residual Free Chlorine	mg/L	0.6	0.8	0.8	0.8	0.6	0.8

CHAPTER – 4

DUMP POND WATER QUALITY MONITORING MONITORING PERIOD: OCTOBER-2019 TO MARCH-2020

Results of Dump Pond Water quality monitoring

SR. NO.	PARAMETERS	UNIT	RESULT					
Sampling Location			Dump Pond-1 Near CT 08		Dump Pond-2 Near Pump House		Dump Pond-3 - Nr. Jetty	
Date of sampling			20/12/2019	12/03/2020	20/12/2019	12/03/2020	20/12/2019	12/03/2020
1	pH	--	8.09	7.76	7.89	7.58	8.03	7.51
2	Total Dissolved Solids	mg/L	524	294	518	370	520	428
3	Total Suspended Solids	mg/L	27	20	26	42	58	35
4	Turbidity	NTU	2.88	4.3	3.22	5.3	4.66	5.8
5	BOD (3 Days @ 27 °C)	mg/L	13	28	11	39	13	43
6	Dissolved Oxygen	mg/L	5.4	5.2	5.1	5.3	5	5.4
7	COD	mg/L	52	126	42	174	48	198
8	Salinity	ppt	0.16	0.11	0.16	0.11	0.14	0.16
9	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
10	Total Hardness as CaCO ₃	mg/L	184	120	188	139	176	178
11	Fluoride as F	mg/L	0.39	0.32	0.38	0.2	0.46	0.24
12	Chloride as Cl	mg/L	90	62	78	68	78	90
13	Zinc as Zn	mg/L	0.28	0.1	0.18	0.14	0.18	0.16
14	Cadmium as Cd	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
15	Lead as Pb	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
16	Mercury as Hg	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

BDL *: Below Detection Limit

CHAPTER – 5

DRINKING WATER QUALITY MONITORING

MONITORING PERIOD: OCTOBER-2019 TO MARCH-2020

Results of Drinking water quality monitoring

SR. NO.	PARAMETERS	UNIT	RESULT			
Sampling Location		Sub Station Building Canteen		Near AMPTPL Exit Gate		
Date of sampling		21/12/2019	13/03/2020	21/12/2019	13/03/2020	
1	Colour	Hazen	1	2	1	2
2	Turbidity	NTU	0.32	0.3	0.26	0.28
3	Conductivity	µmho/cm	326	346	341	392
4	pH	--	7.04	7.11	7.39	7.3
5	Chloride as Cl	mg/L	69	74	76	86
6	Total Dissolved Solids	mg/L	212	230	244	256
7	Total Hardness as CaCO ₃	mg/L	68	80	74	77
8	Iron as Fe	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
9	Sulphate as SO ₄	mg/L	23	20	33	31
10	Residual Free Chlorine	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
11	Calcium as Ca	mg/L	24	20	14.6	18
12	Magnesium as Mg	mg/L	1.92	7.2	9	7.68
13	Fluoride as F	mg/L	0.28	0.23	0.29	0.26
14	Nitrate as NO ₃	mg/L	0.98	0.81	0.82	0.76
15	Manganese as Mn	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
16	Copper as Cu	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
17	Cadmium as Cd	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
18	Arsenic as As	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
19	Mercury as Hg	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
20	Lead as Pb	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
21	Zinc as Zn	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
22	Coliform	/100 mL	Absent	Absent	Absent	Absent
23	E-Coli	/100 mL	Absent	Absent	Absent	Absent

BDL*: Below Detection Limit.

Results of Drinking water quality monitoring

Sr. No.	Parameters	Unit	Result			
Sampling Location			Near Workshop Area		Near Amenity Building	
Date of sampling			21/12/2019	13/03/2020	21/12/2019	13/03/2020
1	Colour	Hazen	1	2	1	2
2	Turbidity	NTU	0.22	0.23	0.29	0.25
3	Conductivity	µmho/cm	316	340	304	301
4	pH	--	7.18	7.24	7.42	7.38
5	Chloride as Cl	mg/L	71	75	62	80
6	Total Dissolved Solids	mg/L	210	224	192	203
7	Total Hardness as CaCO3	mg/L	72	78	78	70
8	Iron as Fe	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
9	Sulphate as SO4	mg/L	21	24	28	18
10	Residual Free Chlorine	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
11	Calcium as Ca	mg/L	17.6	16.2	20.8	22
12	Magnesium as Mg	mg/L	6.84	9.12	6.24	3.6
13	Fluoride as F	mg/L	0.24	0.21	0.22	0.19
14	Nitrate as NO3	mg/L	Not Detected	0.42	0.52	0.48
15	Manganese as Mn	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
16	Copper as Cu	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
17	Cadmium as Cd	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
18	Arsenic as As	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
19	Mercury as Hg	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
20	Lead as Pb	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
21	Zinc as Zn	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
22	Coliform	/100 mL	Absent	Absent	Absent	Absent
23	E-Coli	/100 mL	Absent	Absent	Absent	Absent

BDL*: Below Detection Limit

CHAPTER – 6

SOIL QUALITY MONITORING

MONITORING PERIOD: OCTOBER-2019 TO MARCH-2020

Results of Soil quality monitoring

SR. NO.	PARAMETERS	UNIT	RESULTS			
Sampling Location			NEAR CT-1		NEAR ADANI SITE	
Date of sampling			20/12/2019	12/03/2020	20/12/2019	12/03/2020
1	Type	--	Sandy loam	Sandy loam	Sandy loam	Sandy loam
2	Gravel	%	1	0.5	1.4	0.3
3	Coarse Sand	%	3	3.5	3.6	2.7
4	Medium Sand	%	24	25	15	20
5	Fine Sand	%	23	6	26	7
6	Total Sand	%	51	35	46	30
7	Silt & Clay	%	49	65	54	70
8	pH (1:5)	--	8.59	8.51	8.5	8.5
9	Electricity Conductivity	µmho/cm	852	703	1094	698
10	Alkali matter	mg/kg	603	502	702	516
11	Cation Exchange Capacity	meq/100 g	9.2	9.8	9.4	10.2
12	Sodium Absorption Ratio	--	14.2	12	15.6	14
13	Organic Matter	mg/kg	0.83	0.56	0.65	0.42
14	Available Nitrogen	meq/100 g	0.34	0.34	0.4	0.28
15	Available Potassium	mg/kg	35	4.8	28	4
16	Available Phosphorus	mg/kg	0.4	0.3	0.42	0.27
17	Available Sodium	%	1.92	1.6	1.86	1.52
18	Permeability	%	0.5	0.8	0.51	0.82

CHAPTER – 7

NOISE LEVEL MONITORING

MONITORING PERIOD: OCTOBER-2019 TO MARCH-2020

Results of Day Time Noise level monitoring

October 2019					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		15/10/2019	11/10/2019	07/10/2019	02/10/2019
1	6:00-7:00	57.6	46.8	45.3	46.3
2	7:00-8:00	56.1	48.9	47.1	43.8
3	8:00-9:00	45.4	49.8	48.5	46.1
4	9:00-10:00	50.8	51.6	51.7	47.2
5	10:00-11:00	51.8	52.9	50.1	49.4
6	11:00-12:00	52.3	51.3	52.1	51.1
7	12:00-13:00	54.8	58.4	53.2	52
8	13:00-14:00	52.8	57.9	55.8	50
9	14:00-15:00	56.7	54.1	53.1	52.4
10	15:00-16:00	53.1	56.8	55.3	54.3
11	16:00-17:00	52.6	53.8	56.4	52.1
12	17:00-18:00	53.9	55.6	54	51.1
13	18:00-19:00	50.4	51.2	52.1	50
14	19:00-20:00	51.9	54.4	53.6	51.1
15	20:00-21:00	54.6	50.3	48.6	49
16	21:00-22:00	54.7	49.7	49	48.1
Day Time Limit		75 dB(A) Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

October 2019					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		15/10/2019 & 16/10/2019	11/10/2019 & 12/10/2019	07/10/2019 & 08/10/2019	02/10/2019 & 03/10/2019
1	22:00-23:00	47.5	46.3	47.3	42.4
2	23:00-00:00	46.1	45.1	50.8	41.8
3	00:00-01:00	45.6	52.3	51.3	44.6
4	01:00-02:00	46.1	45.1	52.8	40.8
5	02:00-03:00	45.1	44.2	49.9	42.3
6	03:00-04:00	44	51.9	46.8	43.1
7	04:00-05:00	43.1	46.2	43.6	44.3
8	05:00-06:00	43.1	45.9	49.6	42.6
Night Time Limit		70 dB(A) Leq			45 dB(A) Leq

Results of Day Time Noise level monitoring

November 2019					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		05/11/2019	08/11/2019	12/11/2019	02/11/2019
1	6:00-7:00	54.9	45.6	46.2	48.8
2	7:00-8:00	53.8	47.3	48.9	46.8
3	8:00-9:00	47.1	48.5	49.2	45.4
4	9:00-10:00	49.6	52.7	50.5	47.6
5	10:00-11:00	54.6	54.3	52.5	50.3
6	11:00-12:00	52.1	53.1	51.8	48.6
7	12:00-13:00	53.7	55.9	54.2	53
8	13:00-14:00	55.8	52.4	57.6	52.9
9	14:00-15:00	54.8	59.8	51.1	53.6
10	15:00-16:00	51.9	54.1	54.5	51.7
11	16:00-17:00	52.6	50.9	53.6	52
12	17:00-18:00	51.6	51.1	52.3	48.2
13	18:00-19:00	52.8	53.2	59.6	49.5
14	19:00-20:00	53.9	49.9	49.4	47.5
15	20:00-21:00	51.3	48.4	47.8	49.8
16	21:00-22:00	56.8	46.5	48.6	46.6
Day Time Limit		75 dB(A) Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

November 2019					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		05/11/2019 & 06/11/2019	08/11/2019 & 09/11/2019	12/11/2019 & 13/11/2019	02/11/2019 & 03/11/2019
1	22:00-23:00	46.1	45.8	47.1	43.8
2	23:00-00:00	45.9	44.3	50.2	42.6
3	00:00-01:00	42.8	51.8	52.3	41.9
4	01:00-02:00	44.6	44.9	51.9	42.4
5	02:00-03:00	42.7	52.8	49.8	43.2
6	03:00-04:00	43.9	50.6	47.1	44.4
7	04:00-05:00	44.8	45.4	42.9	42.9
8	05:00-06:00	45.6	44.7	46.1	41.3
Night Time Limit		70 dB(A) Leq			45 dB(A) Leq

Results of Day Time Noise level monitoring

December 2019					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		06/12/2019	10/12/2019	13/12/2019	04/12/2019
1	6:00-7:00	53.6	46.3	48.1	47.8
2	7:00-8:00	52.8	45.8	49.2	47.5
3	8:00-9:00	49.8	47.2	50.6	48.1
4	9:00-10:00	47.6	51.8	51.2	49.5
5	10:00-11:00	53.8	50.4	53.9	52.1
6	11:00-12:00	52.4	54.8	52.2	51.1
7	12:00-13:00	51.9	53.2	56.8	54.3
8	13:00-14:00	54.6	58.6	53.6	53.1
9	14:00-15:00	52.6	55.6	55.2	51.7
10	15:00-16:00	54.2	51.6	53.4	52.1
11	16:00-17:00	55.4	53.1	52.6	50.6
12	17:00-18:00	50.8	52.7	51.6	48.7
13	18:00-19:00	52.9	56.9	60.4	50.2
14	19:00-20:00	50.1	49.6	50.6	49.1
15	20:00-21:00	55.8	47.9	49.5	48.5
16	21:00-22:00	54.9	49.1	46.8	47.1
Day Time Limit		75 dB(A) Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

December 2019					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		06/12/2019 & 07/12/2019	10/12/2019 & 11/12/2019	13/12/2019 & 14/12/2019	04/12/2019 & 05/12/2019
1	22:00-23:00	47.1	48.1	49.1	42.8
2	23:00-00:00	46.8	45.8	48.8	43.9
3	00:00-01:00	44.8	52.6	47.1	42.6
4	01:00-02:00	46.1	45.9	50.6	43.6
5	02:00-03:00	44.3	51.6	48.6	42.2
6	03:00-04:00	42.9	48.7	46.4	44.5
7	04:00-05:00	45.6	44.1	43.5	43.7
8	05:00-06:00	46.6	43.1	44.2	40.8
Night Time Limit		70 dB(A) Leq			45 dB(A) Leq

Results of Day Time Noise level monitoring

January 2020					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		21/01/2020	07/01/2020	10/01/2020	03/01/2020
1	6:00-7:00	52.8	48.3	47.5	46.5
2	7:00-8:00	51.9	49.6	48.5	47.2
3	8:00-9:00	48.7	50.8	49.5	45.6
4	9:00-10:00	50.3	51.5	50.4	49.8
5	10:00-11:00	51.1	52.6	51.7	50.2
6	11:00-12:00	52.5	54.4	52	52.7
7	12:00-13:00	54.1	55.8	53.6	52.3
8	13:00-14:00	55.2	56.1	54.2	53.2
9	14:00-15:00	56.1	55.4	55.9	53.3
10	15:00-16:00	64.3	54.6	53.8	54.4
11	16:00-17:00	53.2	52.9	53.1	53.7
12	17:00-18:00	52.1	54.1	55.6	52.5
13	18:00-19:00	51.1	53.3	51.3	50.5
14	19:00-20:00	50.2	51.8	52.4	49.8
15	20:00-21:00	49.2	50.7	49.1	48.1
16	21:00-22:00	53.9	49.3	48.1	46.9
Day Time Limit		75 dB(A) Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

January 2020					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		21/01/2020 & 22/01/2020	07/01/2020 & 08/01/2020	10/01/2020 & 11/01/2020	03/01/2020 & 04/01/2020
1	22:00-23:00	46.9	47.9	45.2	42.9
2	23:00-00:00	45.6	47.5	44.1	44.9
3	00:00-01:00	45.4	51.9	45	44.3
4	01:00-02:00	44.1	42.3	46	44
5	02:00-03:00	43.5	44.1	45.3	43
6	03:00-04:00	44.8	45.8	44.1	42
7	04:00-05:00	45.3	46.1	43.4	43.2
8	05:00-06:00	43.7	44.5	45	44
Night Time Limit		70 dB(A) Leq			45 dB(A) Leq

Results of Day Time Noise level monitoring

February 2020					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		11/02/2020	21/02/2020	18/02/2020	05/02/2020
1	6:00-7:00	51.7	45.4	48.1	45.1
2	7:00-8:00	48.6	47.6	47.7	46.7
3	8:00-9:00	49.6	51.2	50.2	47.6
4	9:00-10:00	52.3	50.7	48.2	46.5
5	10:00-11:00	53.5	51.4	51.9	50.8
6	11:00-12:00	51.9	53.4	52.6	51.6
7	12:00-13:00	53.1	52.7	55.7	52.8
8	13:00-14:00	54.3	55.6	54.8	52.6
9	14:00-15:00	55.8	53.2	55.1	54.3
10	15:00-16:00	58.9	54.8	56.7	52.9
11	16:00-17:00	53.5	53.9	54.9	52.5
12	17:00-18:00	52.9	53.7	53.5	52.8
13	18:00-19:00	51.6	50.6	50.9	51.4
14	19:00-20:00	52.2	49.7	49.5	48.5
15	20:00-21:00	48.7	48.8	48.3	47.5
16	21:00-22:00	51.3	47.4	50.4	48.9
Day Time Limit		75 dB(A) Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

February 2020					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		11/02/2020 & 12/02/2020	21/02/2020 & 22/02/2020	18/02/2020 & 19/02/2020	05/02/2020 & 06/02/2020
1	22:00-23:00	47.8	44.3	47.6	42.8
2	23:00-00:00	46.5	48.1	46.9	43.2
3	00:00-01:00	44.8	46.5	45.3	44.7
4	01:00-02:00	43.9	47.3	45.4	43.6
5	02:00-03:00	42.9	48.5	44.9	44.5
6	03:00-04:00	45.6	44.5	43.2	43.5
7	04:00-05:00	46.8	45.8	42.4	42.1
8	05:00-06:00	44.6	43.8	45.4	41.9
Night Time Limit		70 dB(A) Leq			45 dB(A) Leq

Results of Day Time Noise level monitoring

March 2020					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		13/03/2020	03/03/2020	06/03/2020	17/03/2020
1	6:00-7:00	45.9	46.4	47.1	44.9
2	7:00-8:00	42.3	48.8	48.7	46.3
3	8:00-9:00	49.7	49.3	50.4	48.4
4	9:00-10:00	50.1	50.6	51.9	49.9
5	10:00-11:00	51	52.7	52.8	50.5
6	11:00-12:00	52.8	53	53.3	51
7	12:00-13:00	53.4	54.4	54.5	52.2
8	13:00-14:00	55.4	55.5	55.7	53.6
9	14:00-15:00	54.2	56.2	56.5	54.4
10	15:00-16:00	56.9	54.9	57.3	55.7
11	16:00-17:00	53.4	55.1	55.6	53.3
12	17:00-18:00	52.2	53.8	53.4	52
13	18:00-19:00	51.5	52.4	52.5	51.8
14	19:00-20:00	50.7	51.7	51.2	50.6
15	20:00-21:00	49.9	50.9	50	49.3
16	21:00-22:00	48	49.4	50.9	48.7
Day Time Limit		75 dB(A) Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

March 2020					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		13/03/2020 & 14/03/2020	03/03/2020 & 04/03/2020	06/03/2020 & 07/03/2020	17/03/2020 & 18/03/2020
1	22:00-23:00	48.1	49.8	49.1	47
2	23:00-00:00	47.8	47.2	48.8	46.7
3	00:00-01:00	46.6	48.4	47.5	45.5
4	01:00-02:00	45.2	46.9	46.7	44.2
5	02:00-03:00	45.9	45.4	45.2	43.3
6	03:00-04:00	44.7	44.2	44.6	44.3
7	04:00-05:00	43.3	44.5	44.2	45.7
8	05:00-06:00	44.8	43.6	43.9	44.9
Night Time Limit		70 dB(A) Leq			45 dB(A) Leq

CHAPTER – 8

D.G. STACK& D.G. STACK NOISE MONITORING MONITORING PERIOD: OCTOBER-2019 TO MARCH-2020

D.G. Stack Monitoring Results

SR. NO.	TEST PARAMETER	UNIT	DG Stack - 1 (2000 KVA) Make Cummins Sr. No.:25388675		LIMIT
			23/12/2019	06/03/2020	
			RESULTS	RESULTS	
1	Particulate Matter	mg/Nm ³	24.81	19.38	75
2	Sulfur Dioxide as SO ₂	ppm	5.69	4.66	--
3	Oxides of Nitrogen as NOX	ppm	35.44	32.29	710
4	Non Methyl Hydro Carbon (NMHC)	mg/Nm ³	Not Detected	Not Detected	100
5	Carbon Monoxide (CO)	mg/Nm ³	14.72	16.88	150
6	Sulfur Content in fuel	%	0.015	0.016	< 2.0

BDL*: Below Detection Limit, Results on 15 % O2 Correction when Oxygen is greater than 15 %

SR. NO.	TEST PARAMETER	UNIT	DG Stack - 2 (2000 KVA) Cummins Sr. No.: 25390869		LIMIT
			23/12/2019	06/03/2020	
			RESULTS	RESULTS	
1	Particulate Matter	mg/Nm ³	20.54	16.62	75
2	Sulfur Dioxide as SO ₂	ppm	4.43	4.27	--
3	Oxides of Nitrogen as NOX	ppm	32.82	28.62	710
4	Non Methyl Hydro Carbon (NMHC)	mg/Nm ³	Not Detected	Not Detected	100
5	Carbon Monoxide (CO)	mg/Nm ³	15.95	14.22	150
6	Sulfur Content in fuel	%	0.018	0.013	< 2.0

BDL*: Below Detection Limit, Results on 15 % O2 Correction when Oxygen is greater than 15 %

SR. NO.	TEST PARAMETER	UNIT	DG Stack – 3 (380 KVA)Cummins Sr. No.: 25386499		LIMIT
			23/12/2019	06/03/2020	
			RESULTS	RESULTS	
1	Particulate Matter	g/kw-hr	0.0022	0.0015	0.3
2	Sulfur Dioxide (SO ₂)	Kg/hr	0.001	0.0005	1.8
3	Oxides of Nitrogen as NOX	g/kw-hr	0.0063	0.0052	9.2
4	Hydro Carbon (HC)	g/kw-hr	Not Detected	Not Detected	1.3
5	Carbon Monoxide (CO)	g/kw-hr	0.0014	0.0012	3.5

BDL*: Below Detection Limit, Results on 15 % O2 Correction when Oxygen is greater than 15 %

D.G. Stack Noise Level Monitoring Results

SR. NO.	SAMPLING LOCATION	Outside DG Room 1 m distance	
		23/12/2019	06/03/2020
		RESULTS	RESULTS
1	DG Stack - 1 (2000 KVA)MakeCummins Sr. No.:25388675	72.6	73.4
2	DG Stack - 2 (2000 KVA) Cummins Sr. No.: 25390869	73.8	72.4
3	DG Stack – 3 (380 KVA)Cummins Sr. No.: 25386499	73.5	73.8
LIMIT**		75 dB(A)	

**as per Noise limit for diesel generator sets (upto 1000 KVA) manufactured on or after the 1st January, 2005

CHAPTER – 9
WEATHER DATA MONITORING
MONITORING PERIOD: OCTOBER-2019 TO MARCH-2020

Date	Avg wind Speed (km/hr)	Temperature (°C)	RH %	Precip. (mm)
01/10/2019	8.75	29.36	81.62	0
02/10/2019	7.42	28.67	74.48	0
03/10/2019	14.57	28.74	80.45	0
04/10/2019	13.41	28.32	82.96	1
05/10/2019	14.12	28.55	76.32	0
06/10/2019	8.45	27.63	84.40	0
07/10/2019	7.84	28.43	82.65	0
08/10/2019	6.90	29.12	77.98	0
09/10/2019	8.24	29.33	79.56	13
10/10/2019	10.15	29.96	80.41	0
11/10/2019	10.52	29.10	78.64	0
12/10/2019	9.46	28.98	76.80	0
13/10/2019	9.89	30.22	76.23	0
14/10/2019	12.12	31.15	82.61	0
15/10/2019	9.57	32.27	74.18	0
16/10/2019	11.40	31.65	70.41	0
17/10/2019	10.84	31.12	73.25	3
18/10/2019	8.88	28.89	77.60	9
19/10/2019	7.54	27.45	83.45	6
20/10/2019	10.67	29.10	76.98	22
21/10/2019	9.82	28.76	81.21	14
22/10/2019	14.63	27.87	84.36	13
23/10/2019	15.47	26.47	87.60	7
24/10/2019	34.59	27.00	86.23	10
25/10/2019	37.65	26.90	85.12	21
26/10/2019	29.49	28.32	82.64	67
27/10/2019	22.34	27.78	83.40	0
28/10/2019	9.56	29.36	76.65	0
29/10/2019	8.60	30.42	73.24	0
30/10/2019	12.43	29.99	72.78	0
31/10/2019	14.86	29.32	77.56	0
01/11/2019	7.85	30.35	56.51	0
02/11/2019	7.99	28.39	66.56	2
03/11/2019	7.69	27.87	53.89	0
04/11/2019	7.11	28.18	50.01	0
05/11/2019	6.51	29.36	50.24	0
06/11/2019	5.88	29.25	50.12	0
07/11/2019	6.96	28.39	47.40	18
08/11/2019	7.70	27.87	49.70	32
09/11/2019	8.30	28.05	54.53	0
10/11/2019	7.47	28.17	56.51	0
11/11/2019	7.31	28.30	59.03	0
12/11/2019	9.24	29.84	66.88	8
13/11/2019	11.55	29.64	66.56	0
14/11/2019	12.74	29.04	63.77	0
15/11/2019	10.46	29.24	67.57	0
16/11/2019	10.64	29.85	68.65	0
17/11/2019	9.51	30.47	67.57	0
18/11/2019	10.46	29.96	67.26	0
19/11/2019	11.43	29.99	67.19	0
20/11/2019	9.80	30.41	69.20	0

21/11/2019	10.72	30.35	66.70	0
22/11/2019	11.05	29.77	65.29	0
23/11/2019	11.07	29.28	64.06	0
24/11/2019	12.40	28.94	58.67	0
25/11/2019	13.34	28.82	63.56	0
26/11/2019	11.44	29.62	62.44	0
27/11/2019	11.23	29.50	60.70	0
28/11/2019	12.55	29.84	65.26	0
29/11/2019	10.14	30.10	65.95	0
30/11/2019	10.98	29.81	66.03	0
01/12/2019	12.17	30.21	61.76	0
02/12/2019	16.49	29.18	63.53	0
03/12/2019	17.36	28.09	64.71	0
04/12/2019	15.44	29.64	57.69	0
05/12/2019	15.13	29.98	55.40	0
06/12/2019	13.33	29.38	57.99	0
07/12/2019	13.67	28.63	57.62	0
08/12/2019	11.28	28.80	64.11	0
09/12/2019	10.52	28.84	66.35	0
10/12/2019	10.29	29.02	63.45	0
11/12/2019	9.94	28.63	63.62	0
12/12/2019	9.47	28.36	65.12	0
13/12/2019	10.41	27.73	69.14	0
14/12/2019	11.40	28.28	67.64	0
15/12/2019	8.90	28.40	68.92	0
16/12/2019	12.08	28.52	66.79	0
17/12/2019	10.63	28.79	65.88	0
18/12/2019	13.37	28.81	59.97	0
19/12/2019	12.53	28.85	61.11	0
20/12/2019	11.25	28.33	64.47	0
21/12/2019	12.81	28.23	64.71	0
22/12/2019	10.23	28.92	60.74	0
23/12/2019	9.12	29.11	58.98	0
24/12/2019	10.79	28.65	69.33	0
25/12/2019	8.87	29.02	70.08	0
26/12/2019	6.80	28.47	75.88	0
27/12/2019	8.39	28.64	71.42	0
28/12/2019	8.94	29.24	67.13	0
29/12/2019	9.42	29.46	70.63	0
30/12/2019	9.94	28.64	72.13	0
31/12/2019	11.47	26.85	66.79	0
01/01/2020	9.91	26.49	67.83	0
02/01/2020	11.51	26.59	68.46	0
03/01/2020	11.96	26.22	67.63	0
04/01/2020	12.87	25.06	70.88	0
05/01/2020	8.21	25.62	64.29	0
06/01/2020	10.91	27.82	69.50	0
07/01/2020	10.57	28.70	71.79	0
08/01/2020	12.75	27.69	76.71	0
09/01/2020	11.89	27.08	66.21	0
10/01/2020	9.68	27.43	72.67	0
11/01/2020	11.33	28.36	65.17	0
12/01/2020	10.83	28.17	64.63	0

13/01/2020	9.20	27.21	71.21	0
14/01/2020	14.69	26.49	75.04	0
15/01/2020	13.90	25.84	71.92	0
16/01/2020	19.04	25.00	61.75	0
17/01/2020	13.08	24.13	63.58	0
18/01/2020	11.07	24.70	67.25	0
19/01/2020	9.84	26.33	72.04	0
20/01/2020	7.80	28.07	70.75	0
21/01/2020	9.50	28.59	69.92	0
22/01/2020	13.56	28.42	57.50	0
23/01/2020	13.34	28.43	60.00	0
24/01/2020	11.29	28.59	58.75	0
25/01/2020	8.73	28.39	63.92	0
26/01/2020	6.53	28.29	59.25	0
27/01/2020	6.86	28.29	75.67	0
28/01/2020	12.29	26.90	73.08	0
29/01/2020	10.86	26.40	72.75	0
30/01/2020	16.11	25.05	70.83	0
31/01/2020	13.87	25.10	71.58	0
01/02/2020	11.52	25.2	68.00	0.0
02/02/2020	10.02	26.0	75.25	0.0
03/02/2020	10.85	26.3	74.17	0.0
04/02/2020	12.80	26.4	69.83	0.0
05/02/2020	10.25	26.8	72.96	0.0
06/02/2020	10.09	26.2	70.58	0.0
07/02/2020	13.62	25.1	64.92	0.0
08/02/2020	12.81	24.7	57.25	0.0
09/02/2020	11.45	25.7	64.17	0.0
10/02/2020	9.35	27.3	70.92	0.0
11/02/2020	9.80	28.4	64.75	0.0
12/02/2020	10.10	29.0	62.50	0.0
13/02/2020	10.83	29.2	63.17	0.0
14/02/2020	9.05	28.9	63.54	0.0
15/02/2020	9.98	28.0	69.38	0.0
16/02/2020	8.69	28.2	70.50	0.0
17/02/2020	7.73	29.0	63.67	0.0
18/02/2020	8.73	29.0	54.54	0.0
19/02/2020	8.18	28.7	58.50	0.0
20/02/2020	9.81	28.7	73.54	0.0
21/02/2020	7.61	28.8	67.58	0.0
22/02/2020	10.27	29.3	56.92	0.0
23/02/2020	9.52	29.3	56.63	0.0
24/02/2020	9.56	29.2	58.29	0.0
25/02/2020	7.76	29.1	75.00	0.0
26/02/2020	11.76	29.7	61.13	0.0
27/02/2020	9.77	29.5	65.92	0.0
28/02/2020	9.17	30.0	69.25	0.0
29/02/2020	7.73	30.2	73.38	0.0
01/03/2020	9.44	29.29	57.38	0.00
02/03/2020	9.18	29.14	68.25	0.00
03/03/2020	14.79	28.42	58.50	0.00
04/03/2020	15.78	27.66	64.29	0.00
05/03/2020	11.52	26.91	67.92	0.00

06/03/2020	8.31	27.88	71.17	0.00
07/03/2020	11.75	27.10	63.88	0.01
08/03/2020	11.22	27.34	65.42	0.00
09/03/2020	13.70	27.51	66.46	0.00
10/03/2020	14.38	27.43	59.50	0.00
11/03/2020	13.57	27.56	68.04	0.00
12/03/2020	14.27	27.17	66.58	0.00
13/03/2020	10.39	26.30	63.08	0.00
14/03/2020	13.46	27.12	51.54	0.00
15/03/2020	10.52	28.13	67.58	0.00
16/03/2020	10.72	29.17	76.17	0.00
17/03/2020	10.11	29.53	79.83	0.00
18/03/2020	10.74	29.97	78.88	0.00
19/03/2020	15.45	29.64	69.63	0.00
20/03/2020	17.12	28.26	58.25	0.00
21/03/2020	14.97	27.18	71.71	0.00
22/03/2020	21.95	27.92	75.50	0.00
23/03/2020	10.19	28.36	80.67	0.00
24/03/2020	10.86	28.82	80.58	0.00
25/03/2020	9.09	29.95	77.54	0.00
26/03/2020	10.37	29.87	74.88	0.00
27/03/2020	12.53	29.81	75.46	0.00
28/03/2020	10.08	30.20	77.67	0.00
29/03/2020	10.81	30.62	75.25	0.00
30/03/2020	11.34	30.63	78.29	0.00
31/03/2020	11.88	29.92	70.50	0.00