

Date – 20.11.2015

To  
The Director (Monitoring –IA Division),  
Ministry of Environment, Forests & Climate Change,  
Indira Paryavaran Bhawan, Jor Bagh Road,  
New Delhi-110003.

Dear Sir,


**Sub :** Half yearly Compliance report of Environment and CRZ clearance for the period from  
**April, 15 to Sept, 2015**

**Ref :** Environmental and CRZ clearance for modernization of Berth No. 7 for coal handling  
granted to M/s Mormugao Port Trust vide letter dated 30<sup>th</sup> December, 2013 bearing F.  
No. 10-39/2009-IA.III

M/s Adani Mormugao Port Terminal Private Limited is concessionaire of M/s Mormugao Port  
Trust for Berth No. 7. Please find enclosed herewith point wise compliance reports (Hard  
copy as well as in a CD) of conditions stipulated in the above referred letter.

Thank you,  
Yours Faithfully,

For M/s Adani Mormugao Port Terminal Private Limited



(H.R. Venkatesh)

Director

Encl: As above

Copy to:

- ✓ 1. The Director (Monitoring –IA Division), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003
2. The Regional Officer, Central Pollution Control Board, 1<sup>st</sup> & 2<sup>nd</sup> Floor, Nisaraga bhawan, A Block, Thimmaiah Main Road, 7<sup>th</sup> D Cross, Shivanagar, opposite Pushpanjali theatre, Bengaluru – 560010
3. The Member Secretary, Goa State Pollution Control board, Dempo Towers, 1<sup>st</sup> Floor, EDC Patto Plaza, Panji, Goa-403001
4. The Chairman, Mormugao Port trust, Administrative Office, Headlan Sada, Mormugao, Goa – 403804

Status of conditions stipulated in Environmental and CRZ clearance.

**Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Mormugao Port, Goa**

Sr. No.	Conditions	Compliance
<b>6</b>	<b>Specific Conditions</b>	
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.	Consent to Establish (CtE) has been obtained from Goa Pollution Control Board vide letter No. 5/356/10-PCB/Vol. IV 8363 dated 02 <sup>nd</sup> March, 2012 and subsequently amendment in CtE vide letter No. 5/356/10-PCB/Vol. IV/379 dated 17 <sup>th</sup> April, 2012. Copies submitted with six monthly compliance reports dated 25 <sup>th</sup> November, 2014
ii	The project proponent shall provide lining for collection of run off from coal stockyard and the leachate shall be treated before disposal.	Runoff from Coal Stock Yard is being collected in dump pond and is being monitored for the parameters prescribed before disposal.
iii	The project proponent shall provide dry fog and sprinkling systems for effective dust suppression.	<ul style="list-style-type: none"> <li>• 14 Nos dry fog dust suppression system has been provided in conveyor system and all transfer points.</li> <li>• 45 Nos Sprinklers have been provided at coal stock yard for dust suppression.</li> <li>• 02 Nos Mist Canon provided.</li> </ul>
iv	Entire transportation of coal shall be in closed conveyor.	The coal is being transported through closed conveyor from jetty to silo/stock yard. We have developed 2700 meters long closed conveyor system from jetty to silos including 11 transfer points.
v	There shall be no washing of conveyor belt	Noted and complying with.
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.	Wind screen of MS structure along with HDPE fabric/perforated sheet of 15 meters height have been provided all along coal stacking yard facility.
vii	Coal shall be kept under moist conditions using water sprinklers. Transportation shall be in closed conveyors with water spray.	The coal is being stored under the moist condition. Sprinklers are provided for the same. Coal is being transported through closed conveyors with dry fog dust suppression system.



Status of conditions stipulated in Environmental and CRZ clearance.

**Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Mormugao Port, Goa**

Sr. No.	Conditions	Compliance
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.	Being Complied.
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.	Not applicable as the said activity is taken up in the existing port premises. This is an old berth and only modification is done.
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.	M/s AMPTPL is handling dry cargo only such as coal. However, the M/s AMPTPL is abiding by the Oil Contingency Management Plan prepared by M/s MPT.
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. 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.	<ul style="list-style-type: none"> <li>The coal unloading is being done through closed conveyor system with inbuilt dust suppression system in Hoppers and all transfer points. Water sprinklers have been provided along Storage yards.</li> <li>Coal is not being unloaded directly on berth.</li> <li>M/s AMPTPL has installed water meters and log sheet maintained to record water consumption in dust suppression system.</li> </ul>
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.	Green belt development along the periphery and coal stock yard is in progress. Currently around <b>11233</b> plants are planted in port premises. There is no mangrove in the vicinity of Berth No. 7
xiv	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.	Construction of the project is completed and currently in operation.



Status of conditions stipulated in Environmental and CRZ clearance.

**Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Mormugao Port, Goa**

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.	<ul style="list-style-type: none"> <li>The sewage is being collected in septic tank and then disposed-off by the Mormugao Municipal corporation tanker to their STP located at Baina.</li> <li>There is no discharge from M/s AMPTPL in marine environment.</li> <li>Ballast is not being taken by M/s AMPTPL</li> </ul>
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.	There is no discharge till date on the beach. The generated effluent and solid waste (if any) will be disposed-off in the environmentally sound manner and will not be discharged into the water and on the beach.
xvii	The quality of treated effluents, solid wastes, emissions and noise levels and the like, from project are must confirm to the standards laid down by the competent authorities including the Central or State Pollution Control Board under the Environment (Protection) Act 1986	Environmental Monitoring to assess the quality of treated effluents from STP, Ambient Air Quality, Noise level are being monitored through NABL accredited laboratory. Copy of the monitoring report is enclosed as <b>Annexure -1</b>
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	Status of the mitigation measures is enclosed as <b>Annexure - 2</b>
xix	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purpose.	M/s AMPTPL has kept separate budget earmarked for Environment Management Plan. The allocated budget for Environment Cell for the year 2015 - 16 is approx. Rs. 25.81 Lakhs.
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	M/s AMPTPL has a well structured Environment Cell staffed with qualified manpower for implementation of the Environmental Management Plan.

**7. General Conditions**

i	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Construction activities are completed and project is in operation phase.
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## Status of conditions stipulated in Environmental and CRZ clearance.

## Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Mormugao Port, Goa

Sr. No.	Conditions	Compliance
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.	Full support is always extended to the officers of Ministry/Regional Office, MoEF as well as officers of Central and State Pollution Control Board during visits.  Latest visit by Goa Pollution Control Board Officials was on 20 <sup>th</sup> February 2015
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.	Six monthly monitoring reports from April, 2015 to September, 2015 are enclosed as <b>Annexure - 1</b>
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.
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.
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.	Financial Closure Date: 14 <sup>th</sup> May, 2010 Concession agreement date with MPT: 22 <sup>nd</sup> September, 2009
viii	A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been made received while processing the proposal.	Condition does not belong to AMPTPL.
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.	Condition does not belong to AMPTPL.



	Adani Mormugao Port Terminal Pvt.Ltd.	From : April 2015 To : September 2015
Status of conditions stipulated in Environmental and CRZ clearance.		

**Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Mormugao Port, Goa**

Sr. No.	Conditions	Compliance
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.
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.	All applicable clearances from the concerned authorities have been obtained.
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 <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . 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.	MPT has given advertisement on 11 <sup>th</sup> January, 2014 in the newspapers mentioned below. 1) Sunaparant 2) Times of India, Goa.
11.	The 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.



## Status of conditions stipulated in Environmental and CRZ clearance.

## Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Mormugao Port, Goa

Sr. No.	Conditions	Compliance
12.	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	AMPTPL is regularly uploading the status of compliance on  Link <a href="http://adaniports.com/mormugao_infrastructure_berths.aspx">http://adaniports.com/mormugao_infrastructure_berths.aspx</a> .
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.	Condition does not belong to AMPTPL.
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.	AMPTPL is regularly uploading the status of compliance and monitoring results on its website. The same can be viewed on <a href="http://adaniports.com/mormugao_infrastructure_berths.aspx">http://adaniports.com/mormugao_infrastructure_berths.aspx</a> .
16.	The environmental statement for each financial year ending 31 <sup>st</sup> 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.	Form V of environment statement is submitted to Goa Pollution Control Board for the year FY 14-15 on 28 <sup>th</sup> September, 2015.  Copy of the same is available on the following web address. <a href="http://adaniports.com/mormugao_infrastructure_berths.aspx">http://adaniports.com/mormugao_infrastructure_berths.aspx</a> .



Status of conditions stipulated in Environmental and CRZ clearance.

## ANNEXURE 1 – ENVIRONMENT MONITORING REPORT (APRIL 2015 – SEPTEMBER 2015)

### A. Ambient Air Quality Monitoring Results

#### A.1 Near Fire Station (All results are in $\mu\text{g}/\text{m}^3$ )

Date of Sampling	Respirable Particulate Matter (PM10)	Particulate Matter (PM 2.5)	Sulphur Dioxide (SO <sub>2</sub> )	Oxides of Nitrogen	Ozone as O <sub>3</sub>
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
02/04/2015	94.49	47.96	18.44	25.57	20.77
06/04/2015	78.01	39.62	11.78	29.11	18.43
09/04/2015	66.51	31.70	10.45	36.50	22.56
13/04/2015	86.49	54.64	22.75	40.48	28.71
16/04/2015	88.33	34.62	13.29	27.48	21.35
20/04/2015	73.31	37.54	14.75	26.61	23.28
23/04/2015	67.68	42.54	16.63	31.50	29.56
27/04/2015	71.60	44.63	19.19	35.85	17.48
30/04/2015	68.50	38.37	9.66	34.54	24.50
04/05/2015	87.48	48.38	14.66	22.54	24.50
07/05/2015	72.52	38.79	18.62	28.15	28.44
11/05/2015	85.31	43.79	15.54	38.49	23.44
14/05/2015	92.50	50.05	13.04	36.44	20.57
18/05/2015	67.23	34.35	6.68	35.64	26.42
21/05/2015	78.17	37.54	9.55	27.67	29.42
25/05/2015	65.90	30.45	11.58	37.86	27.51
28/05/2015	83.89	46.30	17.58	32.25	21.67
01/06/2015	82.58	46.47	18.49	36.55	28.44
04/06/2015	50.61	26.61	8.75	23.42	21.60
08/06/2015	80.49	44.35	15.55	33.50	25.54
11/06/2015	76.51	40.13	12.41	24.49	22.57
15/06/2015	68.20	36.48	14.56	28.53	27.22
18/06/2015	58.62	24.50	9.34	26.48	24.42
22/06/2015	74.49	37.59	13.21	29.45	26.11
25/06/2015	85.53	48.58	19.44	35.46	29.37
29/06/2015	78.60	42.24	16.43	32.61	23.47
02/07/2015	89.58	51.11	17.99	32.36	28.57
06/07/2015	79.42	36.33	6.68	20.58	22.69
09/07/2015	84.87	48.58	16.45	33.39	24.70
13/07/2015	75.82	38.02	14.69	26.87	29.44
16/07/2015	81.49	47.09	12.51	30.23	27.48
20/07/2015	76.49	43.51	15.43	29.16	26.00
23/07/2015	59.10	25.34	11.41	23.62	21.97
27/07/2015	70.08	37.59	13.57	25.50	23.82
30/07/2015	52.99	28.30	10.51	21.61	19.48
03/08/2015	49.27	26.19	12.46	30.50	21.17
06/08/2015	70.59	37.59	18.56	35.46	26.79
10/08/2015	54.38	23.66	13.70	31.52	23.31
13/08/2015	70.59	32.10	16.50	20.35	29.59
17/08/2015	86.51	48.36	19.29	36.50	24.61
20/08/2015	72.62	44.35	11.57	38.52	28.60
24/08/2015	88.52	52.38	17.36	32.34	24.62
27/08/2015	71.52	38.44	15.70	22.65	27.83
31/08/2015	63.78	34.22	10.70	26.70	25.55
03/09/2015	77.49	40.55	14.69	42.63	28.34
07/09/2015	93.37	54.49	18.42	35.37	25.43
10/09/2015	54.51	25.34	11.54	24.45	21.62
14/09/2015	78.82	39.28	12.49	29.58	27.30



## Status of conditions stipulated in Environmental and CRZ clearance.

17/09/2015	89.41	27.57	19.51	33.53	23.60
21/09/2015	68.60	35.48	16.62	28.38	26.47
24/09/2015	76.39	37.59	20.72	37.56	22.43
28/09/2015	65.71	33.37	17.39	32.53	29.48

A.2 Sada Village (All results are in  $\mu\text{g}/\text{m}^3$ )

Date of Sampling	Respirable Particulate Matter (PM10)	Particulate Matter (PM 2.5)	Sulphur Dioxide (SO <sub>2</sub> )	Oxides of Nitrogen	Ozone as O <sub>3</sub>
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
01/04/2015	80.53	39.21	11.36	30.74	18.70
04/04/2015	65.48	45.05	9.28	26.03	16.47
08/04/2015	72.10	34.62	6.72	20.64	22.67
11/04/2015	52.60	32.95	16.41	23.68	19.48
15/04/2015	85.61	46.30	10.48	33.46	24.47
18/04/2015	66.22	38.37	8.48	19.49	17.54
22/04/2015	82.48	50.47	12.43	28.90	23.51
25/04/2015	62.63	28.78	15.88	24.55	25.39
29/04/2015	76.51	30.45	13.33	32.37	20.55
04/05/2015	62.61	31.70	5.27	19.52	21.64
07/05/2015	56.20	29.20	8.79	21.29	24.80
11/05/2015	72.61	34.20	10.66	31.43	18.47
14/05/2015	61.62	38.37	7.54	23.46	22.45
18/05/2015	80.49	41.71	12.45	28.47	19.52
21/05/2015	67.67	32.53	6.62	32.47	25.31
25/05/2015	52.60	27.53	9.69	29.49	23.28
28/05/2015	76.18	37.12	13.61	22.54	26.43
01/06/2015	65.71	36.38	12.70	27.55	23.55
04/06/2015	42.41	16.54	6.67	18.59	19.50
08/06/2015	66.68	28.53	9.72	28.43	17.91
11/06/2015	56.70	24.39	7.64	21.54	24.16
15/06/2015	49.50	19.43	11.46	25.39	20.51
18/06/2015	40.20	15.71	5.72	23.31	16.48
22/06/2015	57.59	25.63	8.38	26.20	18.48
25/06/2015	68.31	32.66	13.36	31.39	21.48
29/06/2015	55.57	22.74	10.58	22.41	25.35
02/07/2015	71.49	32.66	12.41	27.54	24.38
06/07/2015	58.78	25.63	9.69	18.97	20.43
09/07/2015	69.52	37.62	11.42	24.46	18.15
13/07/2015	55.50	26.87	7.49	20.46	22.39
16/07/2015	70.52	29.77	8.70	25.22	19.47
20/07/2015	56.49	23.57	13.68	19.70	23.50
23/07/2015	41.69	16.54	6.32	21.22	25.48
27/07/2015	51.82	20.67	10.61	23.31	21.58
30/07/2015	44.00	17.36	5.42	16.89	17.21
03/08/2015	45.48	15.30	5.35	17.39	17.45
06/08/2015	58.49	24.81	10.59	23.29	23.63
10/08/2015	42.48	17.36	6.58	19.24	19.25
13/08/2015	52.92	22.74	10.63	24.17	25.60
17/08/2015	72.41	38.45	13.30	32.26	26.52
20/08/2015	60.48	26.05	8.74	21.35	24.23
24/08/2015	74.52	30.59	12.75	26.35	21.81
27/08/2015	50.50	20.67	9.43	18.59	22.53
31/08/2015	46.60	18.19	7.38	20.54	20.66



## Status of conditions stipulated in Environmental and CRZ clearance.

03/09/2015	54.81	21.50	7.45	23.56	23.51
07/09/2015	72.58	31.42	11.55	28.36	19.57
10/09/2015	42.60	16.95	5.36	16.36	17.51
14/09/2015	63.40	26.46	9.55	20.51	22.84
17/09/2015	58.61	15.30	16.38	19.20	18.42
21/09/2015	49.82	19.43	13.49	21.88	24.40
24/09/2015	68.82	25.63	10.41	24.87	20.81
28/09/2015	56.41	22.33	8.63	29.45	21.64

A.3 Near Security Tower (All results are in  $\mu\text{g}/\text{m}^3$ )

Date of Sampling	Respirable Particulate Matter (PM10)	Particulate Matter (PM 2.5)	Sulphur Dioxide (SO <sub>2</sub> )	Oxides of Nitrogen	Ozone as O <sub>3</sub>
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
03/04/2015	86.49	54.08	22.91	35.31	28.56
07/04/2015	70.51	50.41	16.63	38.18	22.70
10/04/2015	91.52	38.67	14.13	29.55	29.26
14/04/2015	81.86	44.82	18.45	34.44	25.29
17/04/2015	92.57	47.33	20.45	30.53	27.83
21/04/2015	79.49	43.35	17.91	33.35	19.57
24/04/2015	60.51	37.37	21.76	25.53	21.52
28/04/2015	78.49	40.41	12.39	39.90	26.48
04/05/2015	73.49	35.62	8.70	30.40	29.30
07/05/2015	86.21	42.59	11.63	36.55	26.40
11/05/2015	78.61	47.37	13.67	35.49	20.60
14/05/2015	82.70	41.47	18.44	28.59	24.25
18/05/2015	91.50	45.24	14.52	31.50	22.73
21/05/2015	55.53	28.33	12.77	39.51	27.73
25/05/2015	60.51	36.94	16.65	32.45	25.24
28/05/2015	89.59	44.76	20.79	26.76	28.65
01/06/2015	74.21	41.31	15.44	32.44	25.49
04/06/2015	62.58	36.65	10.59	20.53	23.54
08/06/2015	72.57	39.67	12.31	36.44	21.20
11/06/2015	65.41	35.74	9.31	29.63	18.33
15/06/2015	75.49	42.81	17.71	34.25	22.55
18/06/2015	52.63	30.24	7.54	30.44	26.56
22/06/2015	66.52	40.53	11.66	33.65	20.27
25/06/2015	76.70	44.41	16.41	38.51	24.66
29/06/2015	67.51	37.48	13.68	28.60	29.08
02/07/2015	78.15	44.29	14.76	35.15	26.34
06/07/2015	66.00	32.34	12.61	26.17	28.66
09/07/2015	75.62	41.39	13.64	28.31	20.53
13/07/2015	69.78	42.39	10.63	30.48	24.61
16/07/2015	86.48	40.73	11.24	32.12	22.65
20/07/2015	70.78	38.33	17.45	25.74	19.59
23/07/2015	53.10	31.05	9.29	27.15	29.88
27/07/2015	77.67	45.27	16.67	29.85	27.46
30/07/2015	63.73	37.05	7.55	18.06	23.59
03/08/2015	57.74	33.22	8.67	26.52	19.65
06/08/2015	65.53	30.61	11.57	30.37	24.42
10/08/2015	47.01	22.42	10.74	24.45	21.88
13/08/2015	58.44	28.26	12.41	28.62	27.61
17/08/2015	81.53	42.39	15.65	39.55	29.54
20/08/2015	77.42	40.46	13.49	35.29	26.24



Status of conditions stipulated in Environmental and CRZ clearance.

24/08/2015	82.51	46.14	16.39	38.56	28.62
27/08/2015	62.67	29.75	17.73	30.56	25.66
31/08/2015	72.57	38.75	14.48	34.52	23.23
03/09/2015	66.52	32.37	18.30	37.50	25.16
07/09/2015	86.65	47.43	13.34	41.52	21.21
10/09/2015	47.39	21.56	8.37	20.48	23.22
14/09/2015	83.62	44.47	14.47	33.56	24.53
17/09/2015	65.42	34.91	23.53	28.18	20.37
21/09/2015	77.62	40.88	20.58	36.46	22.53
24/09/2015	82.62	45.71	15.45	31.49	26.59
28/09/2015	72.57	30.18	12.74	38.53	27.57

## B. Sea Water Quality Monitoring Results

Sampling Location			NEAR MOVING DOLPHIN											
S R . N O .	TEST PARAMETERS	UN IT	RESULT											
			07/04/2015		19/05/2015		22/06/2015		17/07/2015		24/08/2015		24/09/2015	
			SURF ACE	BO TTO M	SURF ACE	BOT TOM	SURF ACE	BO TTO M	SURF ACE	BOTT OM	SURF ACE	BOTT OM	SURF ACE	BOTT OM
1	pH	--	8.22	8.15	8.05	8.1	8.19	8.28	8.05	8.18	8.08	8.17	8.03	8.15
2	Temperature	°C	29	30	30	31	30	31	29	30	28	29	28	29
3	Total Suspended Solids	mg/L	52	96	62	40	66	45	54	38	62	47	76	88
4	BOD (3 Days @ 27 °C)	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5	Dissolved Oxygen	mg/L	5.6	4.6	5.8	4.4	5.8	4.8	5.4	4.4	5.6	4.6	5.2	4.6
6	Salinity	ppt	36.4	35.7	42.89	47.2	39.64	41.45	38.46	39.58	37.82	39.96	39.6	40.5
7	Oil & Grease	mg/L	BDL*	BDL*	0.8	BDL*	0.6	BDL*	0.5	BDL*	0.4	BDL*	1	BDL*
8	Nitrate as NO <sub>3</sub>	mg/L	0.597	0.735	0.62	0.8	0.6	0.76	0.48	0.54	0.54	0.661	0.56	0.7
9	Nitrite as NO <sub>2</sub>	mg/L	0.083	0.087	0.042	0.054	0.078	0.082	0.062	0.076	0.058	0.073	0.046	0.05
10	Ammonical Nitrogen as NH <sub>3</sub>	mg/L	0.711	0.901	0.34	0.56	0.82	0.96	0.76	0.88	0.462	0.67	0.32	0.43
11	Phosphates as PO <sub>4</sub>	mg/L	2.16	2.84	1.08	1.16	1.9	2.18	1.12	1.78	1.84	2.07	0.16	0.31
12	Total Nitrogen	mg/L	1.391	1.723	1.002	1.414	1.51	1.764	1.31	1.52	1.058	1.404	0.926	1.19
13	Petroleum Hydrocarbon	µg/L	BDL*	BDL*	16	BDL*	4	BDL*	3	BDL*	2	BDL*	BDL*	BDL*
14	Total Dissolved Solids	mg/L	43910	47120	44375	47375	44140	46990	42826	44870	43720	46996	46980	47420
15	COD	mg/L	24	19	18	12	20	14	22	16	20	16	22	19
16	Oxidisable Particular Organic Carbon	%	0.9	0.6	0.58	0.32	0.76	0.4	0.6	0.54	0.8	0.52	0.72	0.39
<b>A Flora and Fauna</b>														
17.	Primary Productivity	mg C/L	2.92	1.35	1.125	0.45	2.25	0.45	2.25	0.225	1.125	0.225	1.913	0.113



Status of conditions stipulated in Environmental and CRZ clearance.

1		day												
B	Phytoplankton													
1 8. 1	Chlorophyll	mg/ m <sup>3</sup>	5.09	2.93	3.2	0.641	1.86 9	0.66 8	1.896	0.24	1.095	0.134	1.816	0.24
1 8. 2	Phaeophytin	mg/ m <sup>3</sup>	BDL*	BDL *	BDL*	1.94	0.71	1.91 2	0.42	1.72	1.372	1.885	0.147	1.647
1 8. 3	Cell Count	Unit x 10 <sup>3</sup> / L	270	109	330	108	296	152	286	65	196	23	212	32
Continue...														

\*Note: BDL – Below Detection Limit

### C. Sea Sediment Quality Monitoring Results

Sampling Location			NEAR MOVING DOLPHIN					
SR • NO	TEST PARAMETERS	UNIT	RESULT					
			07/04/2015	19/05/2015	22/06/2015	17/07/2015	24/08/2015	24/09/2015
1	Organic Matter	%	0.478	1.28	0.879	0.608	0.706	0.57
2	Phosphorus as P	mg/kg	322	184	232	198	151	278
3	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy
4	Petroleum Hydrocarbon	mg/kg	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5	<b>Heavy Metals</b>							
5.1	Aluminum as Al	%	5.09	4.14	3.56	4.42	5.11	5.06
5.2	Total Chromium as Cr <sup>+3</sup>	mg/kg	0.397	40.2	0.584	0.348	0.454	0.39
5.3	Manganese as Mn	mg/kg	779	819	845	715	681	801
5.4	Iron as Fe	%	1.11	2.04	2.64	3.02	1.85	2.14
5.5	Nickel as Ni	mg/kg	44.58	38.54	20.5	21.22	26.38	22.24
5.6	Copper as Cu	mg/kg	52.38	45.17	48.77	46.1	47.3	50.09
5.7	Zinc as Zn	mg/kg	72.39	50.93	61.66	77.84	64.5	49.94
5.8	Lead as Pb	mg/kg	1.07	1.8	0.982	1.06	0.992	1.13
5.9	Mercury as Hg	mg/kg	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
6	<b>Benthic Organisms</b>							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	--	Molluscs Bivalves Snails Polychaete worms	Echinoderms Crabs Isopods Decapods	Echinoderms Bivalves Polychaete worms Crabs	Crustaceans Bivalves Isopods Decapods Crabs	Crustaceans Crabs Isopods	Polytchaete worms Molluscs Isopods Ceustaceans
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	--	Nematodes Copepods	Nematodes Ostracods	Nematodes Copepods Bryozoans	Foraminifera ns Copepods	Foraminifera ns Copepods	Nematodes Copepods
6.3	Population	no/m2	336	252	433	337	314	318



<b>adani</b>	<b>Adani Mormugao Port Terminal Pvt.Ltd.</b>	<b>From : April 2015 To : September 2015</b>
<b>Status of conditions stipulated in Environmental and CRZ clearance.</b>		

\*Note: BDL – Below Detection Limit

#### D. Effluent Quality Monitoring Results

##### D.1 STP Inlet and Outlet Water Quality Monitoring Results

Near MPT Quarter STP INLET								
SR NO	TEST PARAMETERS	UNI T	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT
			08/04/20 15	20/05/20 15	29/06/20 15	22/07/20 15	20/08/20 15	23/09/20 15
1	pH	--	7.4	6.92	7.05	7.1	6.81	7.31
2	Total Suspended Solids	mg/L	88	92	101	120	126	80
3	BOD (3 Days @ 27 °C)	mg/L	34	41	55	60	82	32
4	COD	mg/L	--	127	99	102	336	132
5	Oil & Grease	mg/L	--	2.2	1.7	1.8	2	1.4
6	Residual Free Chlorine	mg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

\*Note: BDL – Below Detection Limit


Near MPT Quarter STP OUTLET								
SR NO	TEST PARAMETERS	UNI T	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT
			08/04/20 15	20/05/20 15	29/06/20 15	22/07/20 15	20/08/20 15	23/09/20 15
1	pH	--	7.64	7.82	7.6	7.77	7.15	7.69
2	Total Suspended Solids	mg/L	24	28	30	35	32	28
3	BOD (3 Days @ 27 °C)	mg/L	12	12	15	18	24	19
4	COD	mg/L	--	32	24	26	101	76
5	Oil & Grease	mg/L	--	BDL*	BDL*	BDL*	BDL*	BDL*
6	Residual Free Chlorine	mg/L	< 0.1	< 0.1	0.4	0.5	0.6	0.5

\*Note: BDL – Below Detection Limit

I/L – Inlet water

O/L – Outlet water



	Adani Mormugao Port Terminal Pvt.Ltd.	From : April 2015 To : September 2015
Status of conditions stipulated in Environmental and CRZ clearance.		

## D.2 Run – Off Water Quality Monitoring Results

### Dump Pond Water Quality Monitoring Results

#### Dump Pond-1 near CT – 8

Dump Pond Water					
SR. NO.	TEST PARAMETERS	UNIT	RESULT		
			13/04/2015	19/05/2015	25/08/2015
			Dump Pond-1 Near CT - 8		
1	pH	--	7.9	7.1	7.46
2	Total Dissolved Solids	mg/L	1610	218	152
3	Total Suspended Solids	mg/L	87	12	9
4	Turbidity	NTU	1.2	11.89	76.4
5	BOD (3 Days @ 27 °C)	mg/L	15	BDL*	85
6	Dissolved Oxygen	mg/L	5.6	BDL*	4.8
7	COD	mg/L	52	BDL*	348
8	Salinity	ppt	1.34	0.11	0.042
9	Oil & Grease	mg/L	0.1	BDL*	BDL*
10	Total Hardness as CaCO <sub>3</sub>	mg/L	800	116	79
11	Fluoride as F	mg/L	0.8	0.6	0.4
12	Chloride as Cl	mg/L	740	63.98	21.99
13	Zinc as Zn	mg/L	0.02	0.1	0.041
14	Cadmium as Cd	mg/L	BDL*	0.006	BDL*
15	Lead as Pb	mg/L	0.018	0.02	0.019
16	Mercury as Hg	mg/L	BDL*	BDL*	BDL*



Status of conditions stipulated in Environmental and CRZ clearance.

**Dump Pond-2 near Sub Station**

Dump Pond Water					
SR. NO.	TEST PARAMETERS	UNIT	RESULT		
			13/04/2015	19/05/2015	25/08/2015
			Dump Pond-2 Near Sub Station		
1	pH	--	8.15	7.5	6.83
2	Total Dissolved Solids	mg/L	1720	417	154
3	Total Suspended Solids	mg/L	50	8	10
4	Turbidity	NTU	1.8	3.59	219
5	BOD (3 Days @ 27 °C)	mg/L	14	BDL*	42
6	Dissolved Oxygen	mg/L	4.9	BDL*	4.6
7	COD	mg/L	57	BDL*	174
8	Salinity	ppt	1.39	0.27	0.072
9	Oil & Grease	mg/L	BDL*	BDL*	BDL*
10	Total Hardness as CaCO <sub>3</sub>	mg/L	850	150	65
11	Fluoride as F	mg/L	0.7	0.8	0.5
12	Chloride as Cl	mg/L	770	150	39.98
13	Zinc as Zn	mg/L	0.03	BDL*	0.025
14	Cadmium as Cd	mg/L	BDL*	0.005	BDL*
15	Lead as Pb	mg/L	0.022	0.035	0.027
16	Mercury as Hg	mg/L	BDL*	BDL*	BDL*

**E. Soil Quality Monitoring Results****H1. Soil - Near CT-1**

Sr. No.	Sampling Date		13/04/2015	19/05/2015	24/08/2015
	Sampling Location		Near CT-1		
	TEST PARAMETER	UNIT	RESULTS		
1	Type	--	Brown	Brown	Brown



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<b>Status of conditions stipulated in Environmental and CRZ clearance.</b>		

2	Gravel	%	0.4	0.2	0.8
3	Coarse Sand	%	1.3	1.5	3
4	Medium Sand	%	10.8	16.4	12
5	Fine Sand	%	5.2	6.6	18
6	Total Sand	%	17.3	24.7	33.8
7	Silt & Clay	%	82.7	75.3	66.2
8	pH (1:5)	--	8.71	8.8	8.75
9	Electricity Conductivity	µmho/cm	780	840	474
10	Alkali matter	mg/kg	610	628	650
11	Cation Exchange Capacity	meq/100 gm	8.2	7.9	7.68
12	Sodium Absorption Ratio	--	12.8	11.6	11.22
13	Organic Matter	mg/kg	0.51	0.44	0.33
14	Available Nitrogen	mg/kg	90.6	72.4	0.342
15	Available Potassium	mg/kg	35	40	3.08
16	Available Phosphorus	mg/kg	76	64	0.142
17	Available Sodium	mg/kg	38	44	0.98
18	Permeability	%	0.8	0.74	0.6

## H2. Soil - Near Adani Site

Sr. No.	Sampling Date		13/04/2015	19/05/2015	24/08/2015
	Sampling Location		Near Adani Site		
	TEST PARAMETER	UNIT	RESULTS		
1	Type	--	Brown	Brown	Brown
2	Gravel	%	0.8	0.6	0.9
3	Coarse Sand	%	0.3	0.9	5
4	Medium Sand	%	10.9	9.6	16
5	Fine Sand	%	2.4	3.1	20
6	Total Sand	%	13.6	14.2	41.9



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<b>Status of conditions stipulated in Environmental and CRZ clearance.</b>		

7	Silt & Clay	%	89.1	85.8	58.1
8	pH (1:5)	--	8.85	8.12	8.81
9	Electricity Conductivity	µmho/cm	508	488	422
10	Alkali matter	mg/kg	812	780	710
11	Cation Exchange Capacity	meq/100 gm	7.13	6.84	8.16
12	Sodium Absorption Ratio	--	11	10.55	11.54
13	Organic Matter	mg/kg	0.48	0.46	0.42
14	Available Nitrogen	mg/kg	84.31	80.88	0.502
15	Available Potassium	mg/kg	31.01	29.74	2.98
16	Available Phosphorus	mg/kg	70.11	67.23	0.21
17	Available Sodium	mg/kg	280	268	1.02
18	Permeability	%	0.6	0.7	0.9

## F. Noise Level Monitoring Results

### .1 Near Fire Station

<b>Day Time dB(A)</b>							
<b>Sr. No.</b>	<b>Sampling Location</b>	<b>Near Fire Station</b>					
	<b>GPS Location</b>	<b>N 15° 24.523' E 073° 47.800'</b>					
	<b>Sampling Time</b>	06/04/2015	28/05/2015	26/06/2015	10/07/2015	21/08/2015	04/09/2015

1	06:00-07:00	60.1	48.6	45.7	45.3	46.7	48.0
2	07:00-08:00	66.0	45.3	48.1	48.1	48.3	47.7
3	08:00-09:00	60.2	50.0	45.5	55.2	57.1	56.4
4	09:00-10:00	59.6	50.8	50.4	54.2	53.9	55.1
5	10:00-11:00	53.2	55.2	55.7	58.6	59.8	57.3
6	11:00-12:00	64.4	55.3	58.1	55.5	53.8	51.8
7	12:00-13:00	57.4	48.7	55.4	48.2	51.1	51.4
8	13:00-14:00	59.0	50.2	50.5	45.4	42.0	39.8
9	14:00-15:00	64.6	53.7	48.0	55.1	54.0	55.3



Status of conditions stipulated in Environmental and CRZ clearance.

10	15:00-16:00	59.7	50.0	50.8	54.6	57.0	58.4
11	16:00-17:00	58.5	52.0	55.0	50.8	48.8	51.7
12	17:00-18:00	62.8	55.8	58.3	51.8	52.0	54.1
13	18:00-19:00	58.7	48.7	58.0	45.7	43.5	41.4
14	19:00-20:00	53.3	45.6	55.0	55.3	56.9	57.1
15	20:00-21:00	50.0	45.4	60.5	41.2	39.0	38.1
16	21:00-22:00	50.4	44.8	55.6	52.0	51.9	51.0
<b>Night Time dB(A)</b>							
17	22:00-23:00	48.9	48.6	50.7	58.0	57.3	57.5
18	23:00-00:00	54.1	46.2	48.2	48.4	50.7	53.3
19	00:00-01:00	47.2	50.9	48.9	55.7	57.5	55.8
20	01:00-02:00	53.6	52.5	50.5	46.0	45.1	46.6
21	02:00-03:00	51.4	48.9	55.8	40.2	40.7	42.5
22	03:00-04:00	54.0	45.9	50.7	45.6	48.0	45.7
23	04:00-05:00	52.5	45.8	48.6	48.9	51.5	53.7
24	05:00-06:00	51.2	48.6	48.8	46.8	45.0	43.4

## F.2 Near Security Tower

<b>Day Time dB(A)</b>							
<b>Sr. No.</b>	<b>Sampling Location</b>	<b>Near Security Tower</b>					
	<b>GPS Location</b>	<b>N 15° 24.438' E 073° 47.967'</b>					
	<b>Sampling Time</b>	07/04/2015	30/05/2015	23/06/2015	28/07/2015	26/08/2015	08/09/2015
1	06:00-07:00	63.4	45.2	40.3	43.6	45.8	43.7
2	07:00-08:00	63.1	48.5	45.4	45.1	44.5	46.5
3	08:00-09:00	68.6	50.8	45.9	52.8	50.7	52.0
4	09:00-10:00	61.6	45.7	50.2	55.0	56.1	54.5
5	10:00-11:00	66.3	52.7	48.7	48.6	49.1	48.3



Status of conditions stipulated in Environmental and CRZ clearance.

6	11:00-12:00	63.9	55.7	48.9	58.1	59.0	57.7
7	12:00-13:00	66.8	48.6	50.3	50.3	51.2	50.0
8	13:00-14:00	65.7	56.7	48.8	48.7	49.3	50.6
9	14:00-15:00	67.6	50.1	50.3	45.2	45.1	47.8
10	15:00-16:00	62.4	48.1	45.2	47.9	45.7	45.1
11	16:00-17:00	72.6	45.9	45.0	48.7	45.9	44.6
12	17:00-18:00	69.7	45.6	48.6	52.3	55.2	53.9
13	18:00-19:00	65.2	50.1	50.5	54.8	52.7	55.0
14	19:00-20:00	58.8	48.8	48.3	55.9	56.8	56.5
15	20:00-21:00	51.3	45.2	45.8	53.6	51.4	51.9
16	21:00-22:00	54.9	48.6	44.3	48.3	50.8	52.2
<b>Night Time dB(A)</b>							
17	22:00-23:00	61.6	50.6	45.2	52.6	52.7	52.9
18	23:00-00:00	58.4	45.6	48.1	45.2	43.9	43.3
19	00:00-01:00	59.7	45.4	45.0	48.2	46.1	46.1
20	01:00-02:00	52.9	48.2	48.7	45.7	46.2	45.3
21	02:00-03:00	60.7	45.0	45.7	44.8	42.3	44.1
22	03:00-04:00	52.1	45.8	44.4	40.8	39.9	39.2
23	04:00-05:00	51.6	48.7	48.8	49.9	50.1	48.0
24	05:00-06:00	49.3	45.0	42.0	45.0	42.2	44.8

## F.2 Sada Village

<b>Day Time dB(A)</b>							
Sr. No	Sampling Location	Sada Village					
	GPS Location	N 15° 24.755' E 073° 47.942'					
	Sampling Time	08/04/2015	22/05/2015	16/06/2015	14/07/2015	22/08/2015	15/09/2015
1	06:00-07:00	57.2	48.9	42.7	45.9	47.7	44.4
2	07:00-08:00	70.8	50.0	45.9	47.3	42.4	46.1
3	08:00-09:00	59.5	45.6	48.1	50.0	48.7	52.1
4	09:00-10:00	57.8	48.3	45.5	52.5	48.9	52.6
5	10:00-11:00	73.5	45.0	50.4	58.2	50.9	54.4
6	11:00-12:00	51.3	50.1	48.6	60.6	50.6	63.0
7	12:00-13:00	54.3	53.7	45.7	62.2	51.0	66.1



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<b>Status of conditions stipulated in Environmental and CRZ clearance.</b>		

8	13:00-14:00	66.0	50.7	52.2	50.7	52.2	53.2
9	14:00-15:00	68.4	48.1	50.1	48.0	46.8	46.6
10	15:00-16:00	72.8	46.9	48.3	55.6	50.4	53.8
11	16:00-17:00	56.9	45.9	46.0	57.7	53.6	61.0
12	17:00-18:00	62.2	45.9	48.2	60.1	48.2	59.9
13	18:00-19:00	58.5	48.1	50.9	58.3	49.2	56.3
14	19:00-20:00	49.5	45.9	48.7	56.7	47.5	53.7
15	20:00-21:00	56.7	45.0	45.4	55.4	54.2	56.2
16	21:00-22:00	48.4	43.6	43.0	50.6	54.6	45.6
<b>Night Time dB(A)</b>							
17	22:00-23:00	50.9	44.9	43.4	48.3	43.7	48.6
18	23:00-00:00	53.2	43.3	42.3	50.2	43.1	49.1
19	00:00-01:00	58.1	44.4	42.2	58.3	40.6	59.1
20	01:00-02:00	48.3	43.5	44.8	43.7	44.7	40.8
21	02:00-03:00	58.7	42.6	44.0	41.2	43.0	42.6
22	03:00-04:00	47.9	44.6	43.8	49.8	43.6	49.7
23	04:00-05:00	49.9	43.8	42.9	46.4	42.1	48.4
24	05:00-06:00	53.6	44.7	41.4	49.5	44.0	52.0

#### G. Drinking Water Quality Monitoring Results

<b>Drinking Water</b>												
<b>Sampling Location</b>			<b>Sub Station Building Canteen</b>		<b>Near Workshop Area</b>		<b>In Main Office PUB</b>		<b>Near AMPTPL Exit Gate</b>		<b>Near Amenity Building</b>	
<b>S R. N O .</b>	<b>TEST PARAMETERS</b>	<b>UNIT</b>	<b>19/06 /2015</b>	<b>22/09 /2015</b>	<b>19/06 /2015</b>	<b>22/09 /2015</b>	<b>19/06 /2015</b>	<b>22/09 /2015</b>	<b>19/06 /2015</b>	<b>22/09 /2015</b>	<b>19/06 /2015</b>	<b>22/09 /2015</b>
1	Colour	Haze n	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2	Turbidity	NTU	0.34	0.3	0.39	0.39	0.38	0.18	0.31	0.89	0.47	0.24
3	Conductivity	µmho/cm	122	159	230	162	220	30.4	226	158	202	31.6
4	pH	--	6.67	7.35	6.7	7.45	6.48	7.77	6.53	7.33	7.57	7.77
5	Chloride as Cl	mg/L	20.99	14.49	28.49	13.99	27.99	0.99	28.49	13.99	23.49	1.49
6	Total Dissolved Solids	mg/L	84	99.18	148	100	152	18	146	98	136	31
7	Total Hardness	mg/L	38	54	76	55	79	10	79	53	72	11



<b>adani™</b>	<b>Adani Mormugao Port Terminal Pvt.Ltd.</b>	<b>From : April 2015 To : September 2015</b>
<b>Status of conditions stipulated in Environmental and CRZ clearance.</b>		

	as CaCO <sub>3</sub>											
8	Iron as Fe	mg/L	0.11	0.1	0.1	0.13	0.12	0.08	0.14	0.11	0.16	0.14
9	Sulphate as SO <sub>4</sub>	mg/L	6.36	7.48	15.81	7.55	12.93	1.45	19.66	7.39	3.99	3.88
10	Residual Free Chlorine	mg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
11	Calcium as Ca	mg/L	10.8	16.4	23.2	16	23.6	0.4	24.8	16	23.2	0.8
12	Magnesium as Mg	mg/L	2.64	3.12	4.32	3.6	4.8	2.16	4.08	3.12	3.36	2.16
13	Fluoride as F	mg/L	0.2	0.18	0.24	0.22	0.28	0.1	0.3	0.12	0.32	0.26
14	Nitrate as NO <sub>3</sub>	mg/L	4.95	4.02	3.1	2.94	2.53	1.12	1.71	0.81	1.72	0.98
21	Zinc as Zn	mg/L	0.043	0.039	0.05	0.054	0.044	0.03	0.038	0.029	0.042	0.032
22	Coliform	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
23	E-Coli	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent

#### H. DG Set & Noise Monitoring Results

DATE OF SAMPLING			17/04/2015
SAMPLING LOCATION			Near Entry Gate DG Set (380 KVA)
SR. NO.	TEST PARAMETER	UNIT	RESULTS
1	Particulate Matter	mg/Nm <sup>3</sup>	28.99
2	Sulfur Dioxide as SO <sub>2</sub>	ppm	4.86
3	Oxides of Nitrogen as NO <sub>x</sub>	ppm	23.41
4	Non Methyl Hydro Carbon (NMHC)	mg/m <sup>3</sup>	BDL*
5	Carbon Monoxide (CO)	mg/m <sup>3</sup>	5.19

BDL\*: Below Detection Limit

SR. NO.	SAMPLING LOCATION	DATE OF SAMPLING	Noise Level Average Leq dB(A)
			Outside DG Room 1 m distance
1	Near Entry Gate DG Set (380 KVA)	17/04/2015	72.7
Limit**			75 dB(A)



	Adani Mormugao Port Terminal Pvt.Ltd.	From : April 2015 To : September 2015
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## **ANNEXURE 2 – STATUS OF THE MITIGATION MEASURES SUGGESTED IN EIA**

Sr. No	Measures	Status
1	Proposed roads in coal terminal shall be black topped to avoid entrainment of fugitive dust	Complied. All the roads in port are paved.
2	The Municipal waste generated at the terminal is to be disposed along with the solid waste being disposed at present by the MPT.	Being complied with and taken care off. Dispatch register is maintained.
3	Adequate numbers Toilets shall be constructed in terminal office and office area. The sewage shall be treated in septic tank. The treated sewage from septic tank shall be disposed into existing sewage network of MPT.	Complied. Toilet has been constructed at berth, office and workshop area. Sewage from the septic tank is transported by sewage tankers to MPT Sewage Treatment plant.
4	Drinking water facilities and waste disposal facilities shall be located away from each other.	Complied
5	The water Effluent from coal stock yard to Be settled in a settling tank	Complied. Port has been constructed three water dump ponds. Water effluent from coal stock yard is collected & settled in these dump ponds.
6	Efficient pollution control technique for dust control to be utilized at open stock piles, conveyor transfer points, dump hopper loading points and other such dust generation locations.	<ul style="list-style-type: none"> <li>• Dry fog dust suppression system has been provided in conveyor and 11 no's of transfer points.</li> <li>• 45 Nos water sprinklers have been provided at coal stock yard for dust suppression.</li> <li>• 2 Nos of Mist Canon systems are provided.</li> </ul>
7	The stacker can operate from distance with boom to keep the stack pile surface to a minimum.	Complied.
8	All the regularly used roadways at site must be swept daily with a tank mounted road sweeper and washed by a truck mounted cart.	Being Complied. Water tanker equipped with mist cannon arrangement is used to spray water on road to minimize the entrainment of fugitive emission.
9	All the transport shall be properly covered at the bottom and top with perfect sealing of plastic/tarpaulin sheets.	Complied.
10	The stock yard should be covered with screens/ wall of height of at least 7 to 8 mtr.	Complied. Screens/ wall of height of 15 mtr. Is provided along stock yard.



**Status of conditions stipulated in Environmental and CRZ clearance.**

11	The will be properly covered with tarpaulin and overloading will not allowed to avoid spillage of loose material on the roads. Regular maintenance and washing of wheel to be done.	Being complied. All the loaded trucks are covering with tarpaulin. Truck wheel washing arrangement is made inside the port to minimize dust emission.
12	Ambient noise level due to vehicular traffic to be controlled by developing green belt.	Green belt development and plantation is in progress.
13	Noise level from air compressor to be reduced by fitting exhaust muffler and intake mufflers	Air compressor is kept in an acoustic enclosure to minimize noise from these machines. Exposures of workers to high noise level are minimized by job rotation and use of ear muff.
14	Green belt development.	Green belt development is in progress.
15	For controlling fire from coal stock following measures to be adopted. 1. 3 No. of mobile fire tender to be placed at coal stock pile area. 2. Autogenous combustion of coal stock to be prevented by limiting stock height not more than 6 M. 3. Lump size of coal to be restricted to 20mm which will not lead to formation of air voids, eliminating the possibility of combustion	1. Complied. 2. Complied 3. Complied  Also there are around 18 No. Single hydrants and 15 No. of water monitors are provided around coal stock area.
16	Implementation of Environmental Monitoring Programme.	Being complied. Environmental Monitoring to access the quality of treated effluents from STP, Ambient Air quality, Noise level are being monitored through NABL accredited laboratory M/s Pollucon Laboratories Pvt Ltd. Regularly and confirming the standards. Installation of CAAQMS is in progress.