REF: PLL/DHJ/HSE/MoEF/2020/04

Date: 08th Jan, 2020

To.

The Director (Environment) Forests & Environment Department, Government of Gujarat, Block No. 14, 8th Floor, Sachivalaya, Gandhinagar - 382 010 (Fax No.: 079-23252156)

Kind Attn.: Shri S M Saiyad

Subject: Half-yearly Compliance Report with respect to conditions stipulated by Ministry of Environment

& Forests, Govt. of India and Department of Forests, Govt. of Gujarat for Installation of Terminal facilities to handle additional 10 MMTPA of LNG (Phase IIIA & Phase IIIB) at PLL

Dahej, Gujarat by Petronet LNG Limited, Gujarat as on 31st December, 2019

: (a) F. No. 11-63/2011-IA-III Dated 26th February, 2014 Ref

(b) ENV-10-2013-71-E Dated 13th January, 2014

Dear Sir,

The half yearly compliance report as on 31st December, 2019 with respect to conditions stipulated by Ministry of Environment & Forests, Govt. of India and Department of Forests, Govt. of Gujarat for Installation of Terminal facilities to handle additional 10 MMTPA of LNG (Phase IIIA & Phase IIIB) at Petronet LNG Limited, Gujarat is enclosed.

Thanking you, Yours faithfully,

For Petronet LNG Limited

S B Singh S . B. Singh GGM & President (Plant Head) Plant Head

Encl.: As above

Petronet LNG Limited Dahej 392130

Copy to:-

Director,

Ministry of Environment & Forest, Paryavaran Bhawan,

CGO Complex, Lodhi Road,

New Delhi - 110 003

Unit Head - Bharuch Division Gujarat Pollution Control Board Paryavaran Bhavan, Sector-10 A GANDHINAGAR – 382 010 (Gujarat)

CC to: Director (Technical) President (BD & Projects) Joint Director (S)

Ministry of Environment & Forests, Regional Office, Western Region,

Kendriya Paryavaran Bhavan, Link Road No. 3,

Bhopal - 462 016

Regional Officer

Gujarat Pollution Control Board

C-1\119\3, GIDC, Phase - 2, Narmadanagar

Bharuch – 392015 (Gujarat)

### HALF YEARLY COMPLIANCE REPORT TO THE CONDITION MENTIONED IN MOE&F LETTER NO. F.No.11-63/2011-IA-III, DATED: 26th February, 2014

### (For Phase III Expansion) AS ON 31.12.2019

Point-wise compliance statement for the subject environmental clearance is as below:

		CONDITIONS
letter		Special Conditions:
letter	Complied.	"Consent for Establishment" shall be obtained
	"Consent for Establishment"	from State Pollution Control Board under Air and
ID-	obtained from GPCB vide their le	Water Act and a copy shall be submitted to the
		Ministry before start of any construction work at
	15479/222771 Dated 21.08.2014.	the site.
fine	Noted for Compliance. Please	All the recommendations and conditions stipulated
1111	Attached Annexure-I.	by the Gujarat Coastal Zone Management
		Authority vide letter no. ENV-10-2013-71-E dated
		13.01.2014, shall be strictly complied with.
umen	Noted. The facilities design docu	The facility shall be constructed in accordance
cifie	will is in-line with the spec	with the NFPA 59 A- Standard for the Production,
ditio	requirements mentioned in the cond	storage and handling of liquefied Natural gas,
lurin	and the same will be adhered d	OISD-194- Standard for Storage and handling of
	construction.	LNG, EN 1473 - Installation and equipment for
		LNG - Design of onshore installations and
ng o	The construction and commissioning	M.B.Lal Committee report.
Dahe	the Phase-IIIA facilities at I	
since	completed and is operational	
-IIIB	October, 2014 and Phase-	
Dahe	Regasification facility at I	
June	completed and is operational since	
	2019.	1
nal i	Noted for Compliance. The termin	Precautionary measures shall be put in place to
cifie	designed considering all the spec	prevent leakage of LNG due to any disasters
istin	factors for safe operations. Exi	including tidal/ tsunami wave, seismic and other
date	Disaster Management Plan is up	natural calamities. Disaster Management Plan
	accordingly.	shall put in place to manage emergencies.
	Complied.	Oil Spill Contingency Management Plan shall be
ole.	Oil spill contingency plan, is availab	put in place.
	1	
	Online sensors for gas turbine exh	Online sensor for load monitoring shall be
	Online sensors for gas turbine exhare provided.	Online sensor for load monitoring shall be provided, as committed.
i e x	the Phase-IIIA facilities at completed and is operational October, 2014 and Phase Regasification facility at completed and is operational since 2019.  Noted for Compliance. The termined designed considering all the specifactors for safe operations. Explications are proposed in the specific propo	M.B.Lal Committee report.  Precautionary measures shall be put in place to prevent leakage of LNG due to any disasters including tidal/ tsunami wave, seismic and other natural calamities. Disaster Management Plan shall put in place to manage emergencies.  Oil Spill Contingency Management Plan shall be

Page 1 of 7 h

vii)	Temperature sensors, gas detectors, spill detectors shall be installed to take care of any type of spillage or leakage of the gas from the plant and the trucks.	Noted. These sensors placed as per design for instant detection of any leakage in Phase-IIIA & Phase-IIIB1 Regasification Project and will be provided in future expansion work.
viii)	Project proponent shall explore training the local population with the help of training institutes like ITI etc, to make them suitable for employment in the facility.	Petronet is working continuously for skill development of local people. PLL has recruited fair number of local people. For ancillary and support functions as security services, fire fighting and green belt maintenance etc. PLL is giving preference to local people. Housekeeping contract has been awarded to local Lakhigam village contractor.
ix)	All the recommendation of the EMP, Risk Assessment and Disaster Management Plan shall be complied within letter and spirit. All the mitigation measures submitted in the EMP/DMP 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.	Noted for Compliance.
x)	A separate Environment Monitoring Cell shall be set up especially for this plant and details shall be submitted to the Ministry prior to the commencement of operation.	Environment Monitoring Cell is already set up in the existing plant and is being used for Environment Monitoring of expansion project and a brief report is being submitted to MoEF on half yearly basis.
xi)	Construction activity shall be carried out strictly as per the provisions of CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	Noted. It will be followed as per the condition.
xii)	No construction work other than those permitted in Costal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	Noted

xiii)	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.	EMC is already setup in the company headed by Manager (HSE) and supported by five HSE members and it will be used for Environment Monitoring of expansion project.
xiv)	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	Noted. Funds earmarked for environment management plan will be included in the budget and will be used for this activity only.
8.	General conditions:	
i)	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Noted for compliance. Ground water samples are taken and being monitors regularly.
ii)	Full support shall be extended to the officers of this Ministry/Regional Office at Bhopal 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.	Noted.
iii)	A Six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhopal regarding the implementation of the stipulated conditions.	Noted and Complied.
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.	Noted. Regional Office as well as the Ministry has been informed about the start of land development works vide our letter no. PLL/DHJ/MoEF/010 Dtd.12 <sup>th</sup> May, 2014.
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.	The environment clearance was forwarded to concerned offices. A copy of inwards from such offices was submitted vide our letter no. PLL/DHJ/MoEF/011 Dt.13 <sup>th</sup> May, 2014.
ix)	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.	Copy of environment clearance was already forwarded to concerned offices.
9.	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.
10.	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.	Applicable clearances from following authorities obtained, a copy of same was submitted vide our letter no. PLL/DHJ/MoEF/011 Dt.13 <sup>th</sup> May, 2014:  1. PESO in principle approval obtained vide letter dated 10/10/2012 [PV(WC)S-784/GJ-II] and letter Dt 19/03/2014[PV(WC)S-784/GJ-II].  2. Forest Dept. Approval obtained vide letter dated 30/10/2013, No.FCA-1013/10-13/11/SF-31-F.
11,	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 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 Bhopal.	07.03.2014.
12.	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.
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.	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Six monthly compliance are uploaded at company website www.petronetlng.com.
15.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Refer reply to 8 (viii).  The Environment and CRZ Clearance is already uploaded at company website www.petronetlng.com.
16.	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	Complied. The Environment and CRZ Clearance compliance status is already uploaded at company website <a href="https://www.petronetlng.com">www.petronetlng.com</a> . The monitored reports are regularly sent to MoEF RO, Bhopal with copy to GPCB & CPCB.
17.	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of Clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Noted. The Form-V is being updated on company website and sent to MoEF Regional Office by e-mail.

### **ANNEXURE-I**

### Compliance to conditions as conveyed by Department of Forests & Environment, Govt. of Gujarat, Letter No. ENV-10-2013-71-E dated 13<sup>th</sup> January, 2014 as on 31.12.2019

Point-wise compliance statement for the subject environmental clearance is as below:

SR. NO.	CONDITIONS	STATUS
1	The provisions of the CRZ notification of 2011 shall be strictly adhered to by the PLL	Noted
2	PLL shall have to comply with all the Standards/norms prescribed by the Central Pollution Control Board for this project	Noted for compliance.
3	PLL shall have to revise the Emergency Preparedness plan in close coordination with District Authority prior to Commissioning of expansion project.	Noted for compliance. Emergency Preparedness plan is updated accordingly.
4	All the recommendations and suggestions given by the VIMTA LABS in their Comprehensive Environment Management Plan shall be implemented strictly by the PLL	Noted for compliance.
5	The construction debris and sewage generated during the construction phase shall not be discharged into the creek, sea, estuary or into the CRZ area. The debris shall be removed from the construction site immediately after the construction is over and shall be disposed off as per the guidance of the GPCB.	Agreed.
6	The construction camps shall be located outside the CRZ area and the construction labours shall be provided with the necessary amenities, including sanitation, water supply and fuel and it shall be ensured that the environmental conditions are not deteriorated by the construction labours	Noted for compliance.
7	The groundwater shall not be tapped to meet with the water requirements during construction or operation phase in any case.	Agreed
8	A Disaster Management Plan to meet with any eventualities that may arise during construction and/or operation phase shall be prepared implemented.	Noted for compliance.

9	Necessary permissions/Clearances from different	Noted for compliance
	departments/ agencies under different laws/ acts shall be obtained before commencing any enabling activities.	Trocca for compitation.
10	A separate Environmental Cell with qualified personnel shall be created to implement the Environmental Management Plan and a separate budget shall be provided for this purpose.	Environment Monitoring Cell is already set up in the existing plant and it being used for Environment Monitoring of expansion project.
11	The cost of the external agency that may be appointed by this department for supervision / monitoring of the project activities during construction/ operational phases shall be borne by the PLL.	Noted.
12	Massive greenbelt development program including the mangrove plantation in 100 ha. shall be carried out in consultation with the Gujarat Ecology Commission/ Forest Department by PLL.	Noted for compliance.  PLL has completed 100 ha.  Mangrove Plantation in consultation with Forest Department.
13	A large scale socio-economic upliftment program in consultation with the District Collector/ DDO shall be carried out. A separate budget shall be provided for this purpose and details be furnished to this Department from time to time.	Complied. Please Refer Attached Annexure III for detail.
14	Environmental Audit report shall be submitted every year. The report shall also cover the change in the coastal and marine environment enroute the proposed rerouted pipeline and due to commissioning of the proposed activities.	Noted for compliance.
15	A six monthly progress reports regarding the compliance of the conditions shall be submitted to this department.	Noted and Complied.
16	Any additional condition that may be imposed by the Ministry of Environment and Forests, Government of India/This department from time to time shall have to be complied with by the PLL	Noted.

# **ANNEXURE - II - ENVIROMENT DATA**

## AMBIENT AIR QUALITY STATUS REPORT

ζ.	Mon	PN	PM10	PN	PM2.5	SC	SOx	2	×ON	HC as Me	HC as Methane CH <sub>4</sub>
		Min	Max	Min	Max	Min	Max	Min	Мах	Min	Max
	NAAQ norms	100 μ	100 µg/m³	д 09	60 µg/m³	80 µ	80 µg/m³	80 µ	80 µg/m³	Abs	Absent
-	Jan-19	61.00	77.00	16.00	26.00	11.10	22.40	12.80	28.30	BDL	BDL
2	Feb-19	62.00	86.00	16.00	28.00	12.40	21.50	16.80	40.80	BDL	BDL
က	Mar-19	00.99	88.00	18.00	26.00	11.60	22.60	16.30	26.40	BDL	BDL
4	Apr-19	66.00	88.00	18.00	24.00	14.60	22.30	18.60	26.40	BDL	BDL
5	May-19	00.99	92.00	18.00	28.00	14.50	20.60	14.70	25.10	BDL	BDL
9	Jun-19	62.00	90.00	17.00	26.00	13.40	20.80	17.80	27.90	BDL	BDL
7	Jul-19	61.00	88.00	14.00	26.00	11.80	21.80	14.10	24.60	BDL	BDL
∞	Aug-19	62.00	86.00	14.00	26.00	11.30	18,60	12.40	22.40	BDL	BDL
6	Sep-19	56.00	76.00	14.00	26.00	10.30	18.40	12.10	21.40	BDL	BDL
10	Oct-19	66.00	82.00	18.00	25.00	14.50	22.40	17.30	26.60	BDL	BDL
1	Nov-19	64.00	88,00	18.00	28.00	11.40	21.30	14.30	22.60	BDL	BDL
12	Dec-19	64.00	88.00	18.00	33.00	13.20	19.40	14.30	21.60	BDL	BDL
	Range (Jan-19 to Dec-19)	56.	56-92	14.	14-33	10.3	10.3-22.6	12.1-	12.1-40.8	]B	BDL



## STACK EMISSION AIR QUALITY STATUS REPORT

DG SET	NO <sub>x</sub> SPM SO <sub>x</sub> NO <sub>x</sub>	50 ppm 150 mg/NM³ 100 ppm 50 ppm	24.00 84.00 41.00 46.00	20.30 82.00 43.00 47.00	21.10 84.00 46.00 44.00	15.60 86.00 44.00 46.00	13.60 86.00 44.00 42.00	14.30 88.00 42.00 44.00	12.70 91.00 36.00 46.00	16.10 81.00 38.00 44.00	18,20 74,00 36,00 41,00	18.30 76.00 38.00 42.00	14,20 82.00 44.00 42.00	12.30 88.00 36.00 46.00	
6TG	SPM SO <sub>x</sub>	150 mg/NM <sup>3</sup> 100 ppm	BDL BDL	TOS TOS											
A+to M		GPCB norms	1 Jan-19	2 Feb-19	3 Mar-19	4 Apr-19	5 May-19	6 Jun-19	7 Jul-19	8 Aug-19	9 Sep-19	10 Oct-19	11 Nov-19	12 Dec-19	Range (Jan-19 to

BDL: Below Detection Level.

Forfaculty

### NOISE LEVEL REPORT

	1		1 10		l a.
Dec-19	1	48	46	4	52
De	Lday	99	62	22	99
1-19	Loinh	42	4	4	84
Nov-	- Age	64	29	99	62
Oct-19	-right	48	42	46	43
Oct	Lday	89	62	65	7.1
-18	Laight	14	4	42	94
Sep	Louis	62	45	58	2
-19	Leight	46	47	52	84
-Bny	Ldmy	2	99	62	99
-18	Laight	4	42	46	51
Jul-1	Lday	89	17	49	99
Jun-19	Lnight	49	52	90	52
Jun	Ldoy	99	69	89	0,
-18	Lnight	20	84	51	49
May	Lday	88	72	72	02
-19	Lnbnt	52	49	46	84
Apr-1	Lday	65	99	89	72
-18	Lhight	51	48	4	46
Mar-19	Lasy	72	2	7	88
-19	Linght	53	49	52	20
Feb-	rep.	20	99	63	09
9	-night	51	46	52	48
Jan-19	T A	99	99	62	56
į i		Day-75 db Night-70db	Day-75 db Night-70db	Day-75 db Night-70db	Day-75 db Night-70db
ļu.		decibel	decibel	decibel	decibel
Sr no Location		North	East	West	South
.v.		-	2	3	4

### GROUND WATER QUALITY STATUS REPORT

Srno	Darameter	+iul I	Feb	Feb-19	May	May-19	Aug-19	-19	Nov-19	-19
2	ממוכנכו		GW1	GW2	GW1	GW2	GW1	GW2	GW1	GW2
-	Temperature	*C	31	31	33	33	29	29	32	32
2	PH	•	8.65	8.53	8.61	8.69	8.46	7.97	8.44	8.04
က	Total Dissloved Solids (TDS)	mg/L	2640	4480	3105	3805	2820	2095	2035	2200
4	Chlorides as CL	mg/L	837.1	1480.3	1027.3	1255.6	738.2	641	779.7	539.8
5	Sulphate as SO4	mg/L	143	893	299.4	802	2.69	129.7	170.5	312
9	BOD (5 days @ 20°C)	mg/L	BDL							
7	COD	mg/L	4.1	6.1	BDL	8.2	BDL	BDL	BDL	BDL
∞	Oil & Grease	mg/L	BDL							
თ	Phenolic Compound	mg/L	BDL							
10	Zinc as Zn	mg/L	BDL							
11	Total Chromium as Cr+3	mg/L	BDL							
12	Lead as Pb	mg/L	BDL							
13	Cyanide as CN	mg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D	N.D.
14	Flouride as F	mg/L	1.15	BDL	2.22	1.32	1.05	0.8	1.39	0.99
15	Copper as Cu	mg/L	BDL							
16	Insecticide	mg/L	Absent							
17	Pesticide	mg/L	Absent							
18	Mercury as Hg	mg/L	BDL							
	ND*: Not detected									

### MARINE WATER QUALITY STATUS REPORT

Fatiatineter         Unit         MW         MW           Temperature         *C         32         33           PH         -         7.92         8.04           PH         -         7.92         8.04           PH         -         7.92         8.04           Color         Co-pt         20         20           Color         mg/L         855         8.90           Total Dissloved Solids (TDS)         mg/L         16845.8         24318           Cohordes as CL         mg/L         46         BDL           Sulphate as SO4         mg/L         46         BDL           Sulphate as SO4         mg/L         46         BDL           COD         mg/L         46         BDL         BDL           Sulphate as SO4         mg/L         0.085         0.075           Abenolic Compound         mg/L         0.087         0.075           Actic as Zn         mg/L         0.067         0.075           Lead as Pb         mg/L         0.067         0.042           Copper as Cu         mg/L         0.065         0.056           Insecticide         mg/L         N.D.         N.D.	, ,	Č	=	Feb-19	May-19	Aug-19	Nov-19
Temperature         *C         32         33           PH         -         7.92         8.04           Color         -         7.92         8.04           Color         Co-pt         20         20           Total Suspended Solids         mg/L         8656         890           Total Dissloved Solids (TDS)         mg/L         16845.8         24318           Chlorides as CL         mg/L         16845.8         24318           Sulphate as SO4         mg/L         16845.8         24318           Sulphate as SO4         mg/L         46         BDL           BOD (5 days @ 20°C)         mg/L         46         BDL           COD         mg/L         46         BDL           Dil & Grease         mg/L         BDL         BDL           Dil & Grease         mg/L         0.082         0.036           Total Chromium as Cr+3         mg/L         0.082         0.042           Lead as Pb         mg/L         0.065         0.042           Copper as Cu         mg/L         0.065         0.056           Insecticide         mg/L         N.D.         N.D.           Pesticide         mg/L         N.D.	or.no.	Parameter	Onit	WW	MW	MW	MW
PH         -         7.92         8.04         Code           Color         Co-pt         20         20         20           Total Suspended Solids         mg/L         855         890         741850           Total Dissloved Solids (TDS)         mg/L         34085         41850         41850           Chlorides as CL         mg/L         16845.8         24318         24318           Sulphate as SO4         mg/L         46         BDL         BDL           Sulphate as SO4         mg/L         46         BDL         BDL           COD         mg/L         BDL         BDL         BDL           COD         mg/L         BDL         BDL         BDL           Zinc as Zn         mg/L         0.087         0.095         DO           Lead as Pb         mg/L         BDL         BDL         BDL           Copper as Cu         mg/L         0.065         0.056         DO           Insecticide         mg/L         Absent         Absent         Absent           Meccury as Hg         mg/L         N.D.         BDL         BDL           Meccury as Hg         mg/L         N.D.         BDL         BDL <td>-</td> <td>Temperature</td> <td>O<sub>*</sub></td> <td>32</td> <td>33</td> <td>29</td> <td>32</td>	-	Temperature	O <sub>*</sub>	32	33	29	32
Color         Co-pt         20         20           Total Suspended Solids         mg/L         855         890           Total Dissloved Solids (TDS)         mg/L         16845.8         41850           Chlorides as CL         mg/L         16845.8         24318           Sulphate as SO4         mg/L         46         BDL           BOD (5 days @ 20°C)         mg/L         46         BDL           BOD (5 days @ 20°C)         mg/L         46         BDL           COD         mg/L         46         BDL         BDL           Phenolic Compound         mg/L         BDL         BDL         BDL           Zinc as Zn         mg/L         BDL         BDL         BDL           Lead as Pb         mg/L         0.067         0.075         Coge           Lead as Pb         mg/L         BDL         BDL         BDL           Cyanide as CN         mg/L         0.065         0.056         O.42           Copper as Cu         mg/L         N.D.         N.D.         BDL           Insecticide         mg/L         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL           Mercury as H	2	РН		7.92	8.04	8.01	7.42
Total Suspended Solids         mg/L         855         890           Total Dissloved Solids (TDS)         mg/L         16845.8         41850           Chlorides as CL         mg/L         16845.8         24318           Sulphate as SO4         mg/L         46         BDL           BOD (5 days @ 20°C)         mg/L         46         BDL           BOD (5 days @ 20°C)         mg/L         46         BDL           COD         mg/L         BDL         BDL           Oil & Grease         mg/L         BDL         BDL           Dil & Grease         mg/L         0.082         0.096           Inc as Zn         mg/L         0.082         0.096           Icad as Pb         mg/L         BDL         BDL           Cyanide as CN         mg/L         0.067         0.42           Copper as Cu         mg/L         0.056         0.056           Insecticide         mg/L         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL	т	Color	Co-pt	20	20	20	20
Total Dissloved Solids (TDS)         mg/L         34085         41850           Chlorides as CL         mg/L         16845.8         24318           Sulphate as SO4         mg/L         46         BDL           BOD (5 days @ 20°C)         mg/L         46         BDL           COD         mg/L         46         BDL         BDL           Oil & Grease         mg/L         BDL         BDL         BDL           Phenolic Compound         mg/L         0.082         0.096         DO           Zinc as Zn         mg/L         0.082         0.096         DO           Total Chromium as Cr+3         mg/L         BDL         BDL         BDL           Cyanide as Pb         mg/L         0.067         0.075         DO           Flouride as F         mg/L         0.065         0.056         DO           Insecticide         mg/L         Absent         Absent         Absent           Pesticide         mg/L         N.D.         BDL         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL         BDL	4	Total Suspended Solids	mg/L	855	890	710	620
Chlorides as CL         mg/L         16845.8         243.18         7           Sulphate as SO44         mg/L         2384         3639         7           BOD (5 days @ 20°C)         mg/L         46         BDL         BDL           COD         mg/L         BDL         BDL         BDL           Oil & Grease         mg/L         BDL         BDL         BDL           Phenolic Compound         mg/L         0.082         0.096         DO           Zinc as Zn         mg/L         0.067         0.096         DO           I cad as Pb         mg/L         0.067         0.075         DO           Lead as Pb         mg/L         0.75         0.42         DO           Copper as Cu         mg/L         0.75         0.42         DO           Insecticide         mg/L         N.D.         N.D.         BDL           Pesticide         mg/L         N.D.         BDL         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL         BDL	5	Total Dissloved Solids (TDS)	mg/L	34085	41850	20500	18540
Sulphate as SO4         mg/L         2384         3639           BOD (5 days @ 20°C)         mg/L         46         BDL           COD         mg/L         46         BDL           Oil & Grease         mg/L         BDL         BDL           Phenolic Compound         mg/L         BDL         BDL           Phenolic Compound         mg/L         0.082         0.096           Zinc as Zn         mg/L         0.067         0.075           Lead as Pb         mg/L         BDL         BDL           Lead as Pb         mg/L         0.75         0.42           Cyanide as CN         mg/L         0.065         0.056           Insecticide         mg/L         0.065         0.056           Insecticide         mg/L         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL	9	Chlorides as CL	mg/L	16845.8	24318	10198.9	11996.2
BOD (5 days @ 20°C)         mg/L         46         BDL         BDL           COD         mg/L         BDL         BDL         BDL           Oil & Grease         mg/L         BDL         BDL         BDL           Phenolic Compound         mg/L         BDL         BDL         BDL           Zinc as Zn         mg/L         0.082         0.096         CO96           Zinc as Zn         mg/L         BDL         BDL         BDL           Lead as Pb         mg/L         BDL         BDL         BDL           Cyanide as CN         mg/L         BDL         BDL         BDL           Flouride as F         mg/L         0.75         0.42         Co56           Insecticide         mg/L         N.D.         N.D.         N.D.           Pesticide         mg/L         Absent         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL         BDL	7	Sulphate as SO4	mg/L	2384	3639	218.2	1669.5
COD         mg/L         H5.4         BDL         BDL           Oil & Grease         mg/L         BDL         BDL         BDL           Phenolic Compound         mg/L         0.082         0.096         0.096           Zinc as Zn         mg/L         0.067         0.075         0.075           Total Chromium as Cr+3         mg/L         BDL         BDL         BDL           Cyanide as Pb         mg/L         BDL         BDL         BDL           Flouride as F         mg/L         0.75         0.42         0.42           Copper as Cu         mg/L         N.D.         N.D.         N.D.           Insecticide         mg/L         N.D.         N.D.         N.D.           Mercury as Hg         mg/L         N.D.         BDL         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL         BDL	80	BOD (5 days @ 20°C)	mg/L	46	BDL	∞	12
Oil & Grease         mg/L         BDL         <	6	cop	mg/L	145.4	BDL	33	41.1
Phenolic Compound         mg/L         BDL         BDL           Zinc as Zn         mg/L         0.082         0.096           Total Chromium as Cr+3         mg/L         0.067         0.075           Lead as Pb         mg/L         BDL         BDL           Cyanide as CN         mg/L         0.75         0.42           Flouride as F         mg/L         0.065         0.056           Insecticide         mg/L         N.D.         N.D.           Pesticide         mg/L         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL	10	Oil & Grease	mg/L	BDL	BDL	BDL	BDL
Zinc as Zh         mg/L         0.082         0.096           Total Chromium as Cr+3         mg/L         0.067         0.075           Lead as Pb         mg/L         BDL         BDL           Cyanide as CN         mg/L         BDL         BDL           Flouride as F         mg/L         0.75         0.42         Cot           Copper as Cu         mg/L         N.D.         N.D.         N.D.           Insecticide         mg/L         Absent         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL         BDL	11	Phenolic Compound	mg/L	BDL	BDL	BDL	BDL
Total Chromium as Cr+3         mg/L         0.067         0.075         7           Lead as Pb         mg/L         BDL         BDL         BDL           Cyanide as CN         mg/L         0.75         0.42         0.42           Flouride as F         mg/L         0.065         0.056         0.056           Insecticide         mg/L         N.D.         N.D.         N.D.           Pesticide         mg/L         Absent         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL         BDL	12	Zinc as Zn	mg/L	0.082	0.096	0.074	0.063
Lead as Pb         mg/L         BDL         BDL           Cyanide as CN         mg/L         0.75         0.42           Flouride as F         mg/L         0.065         0.056           Copper as Cu         mg/L         N.D.         N.D.           Insecticide         mg/L         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL	13	Total Chromium as Cr+3	mg/L	0.067	0.075	0.052	0.059
Cyanide as CN         mg/L         BDL         BDL           Flouride as F         mg/L         0.75         0.42           Copper as Cu         mg/L         0.065         0.056           Insecticide         mg/L         N.D.         N.D.           Pesticide         mg/L         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL	14	Lead as Pb	mg/L	BDL	BDL	BDL	BDL
Flouride as F         mg/L         0.75         0.42         0.05           Copper as Cu         mg/L         N.D.         N.D.         N.D.           Insecticide         mg/L         Absent         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL	15	Cyanide as CN	mg/L	BDL	BDL	BDL	BDL
Copper as Cu         mg/L         0.065         0.056         7           Insecticide         mg/L         N.D.         N.D.         Absent         Absent         M.D.           Mercury as Hg         mg/L         N.D.         BDL         BDL         BDL	16	Flouride as F	mg/L	0.75	0.42	1.23	0.94
Insecticide         mg/L         N.D.         N.D.         N.D.           Pesticide         mg/L         N.D.         BDL         BDL           Mercury as Hg         mg/L         N.D.         BDL         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL         BDL	17	Copper as Cu	mg/L	0.065	0.056	BDL	BDL
Pesticide         mg/L         Absent         Absent           Mercury as Hg         mg/L         N.D.         BDL           Hexavalent Chromium as Cr+6         mg/L         N.D.         BDL	18	Insecticide	mg/L	N.D.	N.D.	N.D.	Ö.N
Mercury as Hg         mg/L         N.D.           Hexavalent Chromium as Cr+6         mg/L         N.D.	19	Pesticide	mg/L	Absent	Absent	Absent	Absent
Hexavalent Chromium as Cr+6 mg/L N.D.	20	Mercury as Hg	mg/L	N.D.	BDL	BDL	N.D
	21	Hexavalent Chromium as Cr+6	mg/L	N.D.	BDL	BDL	N.D
22 Nickel as Ni mg/L 0.142 0.125	22	Nickel as Ni	mg/L	0.142	0.125	0.108	0.091

### ANNEXURE -III

### **CSR DETAILS**

PLL has constructed a temple at the site for the local people and has contributed towards infrastructure in the area for roads and drinking water.

Community development and welfare measures are taken. Village Luwara has been jointly adopted along with another nearby industry, as directed by PCPIR Welfare Society. Separate fund allocated for CSR.

Some of the schemes completed/under progress are Health Center (construction & operation), drainage and provision of street lights at Village Luwara. Rupees 75 lakh contributed to PCPIR Welfare Society. Two ladies from Luwara village sponsored for nursing course at Vidhyadeep Community college, Bharuch. Sponsored construction of Sanitation scheme at village Muller. Active participation in other Government initiated community development programs.

Installed 10 nos. Emergency solar lighting at prominent places in village Luwara. Donated Rs.1 lac for Bharuch District Civic centre development. Participated in Govt. scheme on KanyaKelvani. Installation of drainage crossings to remove accumulated water at 4 locations within the village Luvara at a cost of Rs. 0.8 lacs. Construction of approach road in village Lakhigaon, Dahej.

PLL has sponsored 'Mataria Talav drinking water project' of the Bharuch Municipality Corporation. This project is for the supply of sweet drinking water from the Narmada River to the residents of Bharuch city. MD&CEO handed over cheque for Rs. 25 Lacs to the Collector, Bharuch on 13/06/2011 and further, PLL added Rs. 20 Lacs for the 'MatariaTalav drinking water project'

PLL installed 50 nos. Emergency solar lighting at prominent places in village Luwara& 10 nos. Emergency solar lighting at prominent places in village Lakhigam of Vagra Taluka in Bharuch District. Provided School Bus to Primary School at Lakhigam Village and also running Primary Health Center at Luvara Village. PLL constructed Bus-stand and extended Gram Panchayat Bhavan building at Luvara Village.

PLL installed 25 Nos. of Solar lights at prominent places in village Lakhigam and Luwara. Contributed Rs. 20 Lakhs in Akshay Patra mid-day meal scheme at villages in and around Dahej location. Also, contributed Rs. 10.00 Lakhs in Gujarat Lion Conservation Society towards procurement of Vehicle.

Maddel

Primary health services to Luvara village, Gynec health and Pulse Polio campaign (Pakhajan PHC). PLL supported noble cause of Construction of Storm water drainage at Shravan Chokdi to Jambusar by pass (over bridge) in Bharuch. This project is executed under District Collector office.

Request from CDHO (Chief District Health Officer) was received to participate in various health initiatives. PLL agreed during meeting with DM to provide the ambulance for PHC, Pakhajan Village of Vagra Taluka. PLL is supporting Luvara School for reference books, uniform, school picnic and creating awareness on environment, health, safety and security aspects through various programs regularly, rewarding bright students etc. PLL celebrated Shala Pravesh Utsav at Luvara School and distributed tool box to children.

Bharuch has problem of solid waste management and garbage disposal. To improve on cleanliness of the town, PLL is supporting initiative of GREEN BHARUCH CLEAN BHARUCH by donating two dumper placer worth Rs. 23.94 Lakh.

Due to delay in recruitment of teachers, primary schools in and around Dahej has 40% teaching staff. To support education by deploying young educated teachers, PLL sponsored 14 teachers in 4 schools of villages of Dahej, Lakhigam and Luvara.

PLL constructed 11hosues of homeless tribes in Luvara village at a cost of 25 Lakh. PLL initiated drive to make Luvara open defecation free by sponsoring toilets for 172 houses at a cost of Rs. 17.2 Lakh.

As a part of initiate for Swachh Bharat Abhiyan, PLL constructed five toilet blocks for school at Lakhigam, Luvara, Ambetha, Jageshwar & Dahej. Also, PLL has constructed 91 Toilet blocks at an estimated expenditure of Rs. 172 Lakhs for various schools in fifteen district of Assam in co-ordination with Rashtriya Madhiyamik Siksha Abhiyan (RMSA).

Cancer screening done (Pep and Breast) for female above 18 years at Luvara village. Establishment of equipment for Ultra Sonography Ward done at General/Civil Hospital, Bharuch. Motivational Awards (Academics and punctuality), School kit and reference books given for Luvara School students. Nutrition and clothing kit (105 nos.) was given to under nourished baby and mother.

PLL has sponsored Drawing competition, Educational tour and uniform distribution at Primary School Luvara. PLL sponsored Medical Equipment such as Eye sight testing, ECG Machine, Spirometer, Pulse Oxymeter etc. to Luvara Primary Health Centre. PLL also celebrated Swatch Bharat Pakhwada during 16th June, 2016 to 30th June, 2016 in co-ordination and consultation with neighboring villages, communities, schools etc.

Smealth

The launch of Project Vidhyagam was organized in Luwara Primary School wherein a classroom library for std. 7 & 8 students is setup. About 130 books (syllabus and general reading including comics, biographies, story books, general knowledge, science fiction in Gujarati, Hindi and English language) has been kept in the library. The idea behind this project is that students develop interest in reading and thus studying. The PLL Disha Ladies Club organized for food and distribution of educational kits for 65 girls in the Orphanage in Bharuch on 11th Sept 2016. A focused group discussion on importance of hygiene and cleanliness was organized by Ladies club members as well.

Roofing item worth Rs. 2 Lacs was provided to the Gram Panchayat Office of Luwara Village for construction of house for 10 tribal families living below the poverty line. This material consisted of cement roof, channel, and hooks. It is expected that the construction of houses will be done by mid-January 2017.

Petronet LNG Limited celebrated the World Sight Day on 13th October 2016 by organizing the Eye Screening Camp for contractual labor at the company premises. The camp was organized in association with Wockhardt Foundation and about 200 labor and 60 employees participated in the same. During the camp; 125 specs and 60 unit of drops were distributed to beneficiaries based on assessment by Doctors.

On the occasion of 147th birth anniversary of Father of Nation Shri Mahatma Gandhi Health and Hygiene talk, Swachhta Selfie Campaign, Drawing Competition at Govt. High School, Lakhigam and other activities were organized as part of Swachh Bharat Abhiyaan.

It is observed that there is a shortage of regular teachers in local schools and severely hampering the quality of education of poor children in schools. To mitigate this problem, PLL has started supporting para teachers in local school and ensuring improvement in quality of education in local schools.

PLL CSR team participated in world school day celebration on 23 March, 2017. As a part of celebration PLL has distributed Uniforms to Std. 8th Students. It was decided to provide two pair of uniforms to all students in school. The uniforms were prepared by Sardar Mahila Vikas Mandal a group of tribal women for employment generation and livelihood opportunity. PLL provided work order worth of Rs. 2,23,980/-

As the students studying in primary schools are coming from BPL and poor families, most of the families are not able to afford educational tours for their children. Every year school is organizing such tour sponsored by PLL. Students will get exposures to various places and gain experience. About 150 students get benefit of this tour and

Madul

places covered like Dwarka, Somnath, Porbandar, Smruti Mandir, Naheru Planetorium, Sasan Gir etc.

PLL had sponsored community mass marriage of weaker community, participated in Shala Pravesh Utsav 2017, planted 150 of trees in nearby villages, distributed food packages during water logging observed at nearby villages, supported empowerment of Special children, engaged contractor for repair and maintenance of Toilets in nearby School, arranged cessions for awareness on solid waste management at school.

PLL supported 10th Special Olympics, Bharuch in January, 2018, sponsored project "Kaushal Setu" Skill Development Program with CIPET, Ahmedabad and trained 100 underprivileged youth, supported educational tour for Primary School of Luvara Village, provided para-teachers at school of nearby villages, sponsored community mass marriage of weaker community, supported "Startup Village" project towards Rural Youth Entrepreneurship Development Program, Supporting Swachh Bharat Abhiyan by District Administration Bharuch (Heritage Walk).

PLL signed MoA with Samagra Shiksha Abhiyan, Department of Education, Govt. of Gujarat on 23rd Jan. 2019 at Govt. Primary School, Luvara village for the Development of Primary School at Luvara Village. PLL supported District Level Special Olympics Games which was organized on 23rd February 2019. Around 250 special children, 150 volunteers including PLL volunteers and coaches participated during the event.

(July, 2019 to Dec. 2019)

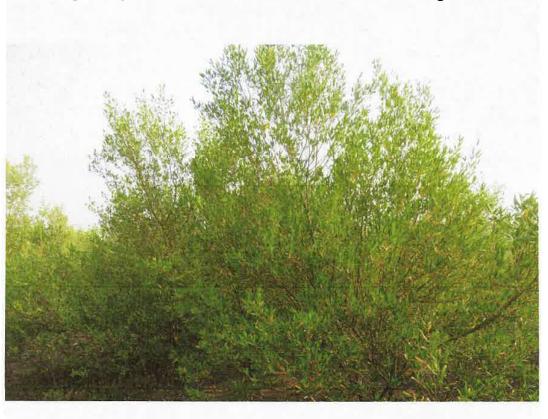
PLL has signed MoU with ALIMCO to provide Aids and Equipment to disables of Bharuch District. PLL has signed MoU with Wockhardt Foundation to run Mobile Medical Unit (MMU) in nearby villages of PLL plant area. PLL has signed MoU with NHFDC to provide skill training to disable youth of Bharuch District. PLL has supported relief camp for affected community near Lakhigam during monsoon season.

Homaelh

Mangroves planted in 50 ha. area at NADA Coast during 2009-10

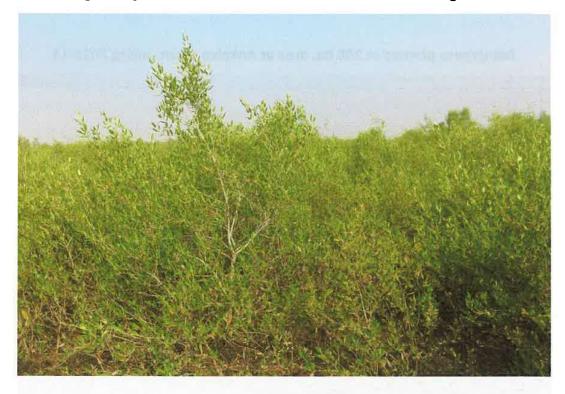


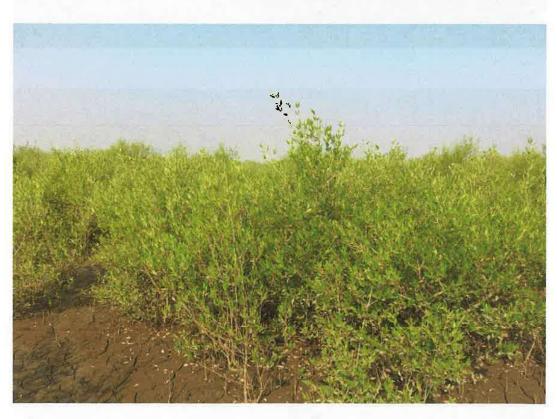
Mangroves planted in 100 ha. area at Ankalva Coast during 2010-11





Mangroves planted in 200 ha. area at Ankalva Coast during 2011-12





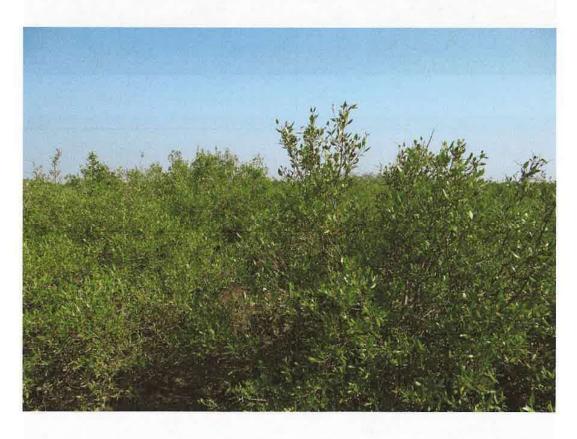
Mangroves planted in 200 ha. area at Ankalva Coast during 2012-13





Mangroves planted in 100 ha. area at Bhavnagar Coast during 2012-13





Mangroves planted in 200 ha. area at Bhavnagar Coast during 2013-14





Mangroves planted in 200 ha. area at Bhavnagar Coast during 2014-15





Mangroves planted in 50 ha. area at at Kentiyajal Coast during 2014-15





Mangroves planted in 50 ha. area at Gadhula, Talaja Coast during 2016-17



