

**Hubert Enviro Care Systems (P) Ltd.**

# 18, 92nd Street, Ashok Nagar,

Chennai - 600 083.

Ph: 42985555 Fax : 42985500

E-mail : labsales@hecs.in

**Laboratory Services Division**

(Chemical &amp; Biological Testing)

Recognized by MoEF, BIS

FSSAI Notified Laboratory

ISO 9001, 14001 &amp; OHSAS 18001 Certified.

**TEST REPORT**

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,  
Address of the Client : ECH – PO Plant, Manali Express Highway,  
Manali, Chennai - 600 068.

Report No. : HECSL/AA/012/210720  
Report Date : 25/07/2020

Sample Description : Ambient Air Quality  
Sampling Location : Near Main Gate  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 21/07/2020 -21/07/2020  
Analysis Commenced On : 21/07/2020

Completed On :25/07/2020

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards : 2009	
1	Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	13.29	IS : 5182 (P-2):2001	80 (24 hours)	50 (Annual)
2	Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	22.62	IS: 5182 (P-6):2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 $\mu\text{m}$	$\mu\text{g}/\text{m}^3$	52.90	IS: 5182 (P-23):2006	100 (24 hours)	60 (Annual)
4	Particulate Matter Size Less than 2.5 $\mu\text{m}$	$\mu\text{g}/\text{m}^3$	25.32	HECS/AIR/SOP/003 : 2017	60 (24 hours)	40 (Annual)
5	Carbon Monoxide	$\text{mg}/\text{m}^3$	BLQ(LOQ 0.05)	IS : 5182 (P-10) 1999	4 (1 hours)	2 (8 hours)
6	Lead	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	IS: 5182 (P-22): 2004	1 (24 hours)	0.5 (Annual)
7	Ozone	$\mu\text{g}/\text{m}^3$	10.16	HECS/AIR/AMBIENT/SOP/007 :2013	180 (1 hours)	100 (8 hours)
8	Ammonia	$\mu\text{g}/\text{m}^3$	6.99	HECS/AIR/AMBIENT/SOP/006 :2013	400 (24 hours)	100 (Annual)
9	Benzene	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 1)	IS: 5182 (P-11):2006	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	$\text{ng}/\text{m}^3$	BLQ(LOQ 1)	IS: 5182 (P-12): 2004	1 (Annual)	1 (Annual)
11	Arsenic	$\text{ng}/\text{m}^3$	BLQ(LOQ 2)	HECS/AIR/AMBIENT/009 :2013	6 (Annual)	6 (Annual)
12	Nickel	$\text{ng}/\text{m}^3$	BLQ(LOQ 10)	HECS/AIR/AMBIENT/009 :2013	20 (Annual)	20 (Annual)
13	Suspended Particulate Matter	$\mu\text{g}/\text{m}^3$	78.22	IS: 5182 (P-4) 1999	NA	NA

Note:- BLQ-Below limit of Quantification, LOQ-Limit of Quantification,  $\mu\text{g}/\text{m}^3$ - Micrograms per cubic meter,  $\text{mg}/\text{m}^3$ - Milligrams per cubic meter,  $\text{ng}/\text{m}^3$ - Nanograms per cubic meter.

Remarks:- The Tested Parameters as above were within the limits of NAAQ Standard 2009.

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



Authorized Signatory  
Dr. P. ELAIYARAJU  
Assistant Manager

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### TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH - PO Plant, Manali Express High Way,  
Manali, Chennai - 600068.

Report No. : HECSL/ST/012/210720

Report Date : 25/07/2020

Sample Description : Stack Emission  
Sample Mark : Boiler-B  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 21/07/2020 -21/07/2020  
Analysis Commenced On : 21/07/2020

Completed On :24/07/2020

S.No.	Parameters	Units	Results	Test Method
1	Sulphur Dioxide	mg/m <sup>3</sup>	27.0	IS 11255 (Part-2) 1985
2	Oxides of Nitrogen	mg/m <sup>3</sup>	52.0	IS 11255 (Part-7) 2005
3	Carbon monoxide	mg/m <sup>3</sup>	72.0	IS 13270 - 1992
4	Oxygen	% V/V	3.2	IS 13270 - 1992
5	Particulate Matter	mg/m <sup>3</sup>	6.0	IS 11255 (Part-1) 1985

Note:- mg/Nm<sup>3</sup>- Milligrams per Normal cubic meter.

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



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**TEST REPORT**

Page : 1 of 2

Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH – PO Plant, Manali Express High Way,  
Manali, Chennai - 600068.

Report No. : HECSL/WT/013/170720  
Report Date : 21/07/2020

Sample Description : WATER  
Sample Mark : Bore Well No:1  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 -14/07/2020  
Analysis Commenced On : 14/07/2020

Completed On : 20/07/2020

S.No.	Parameters	Units	Results	Test Method
1	pH (at 25 °C)	-	6.61	IS 3025 (Part - 11):1983
2	Electrical conductivity	µS/cm	8800.0	IS 3025 (Part - 14):1983
3	Colour	Hazen Unit	2.0	IS 3025(Part - 4):1983
4	Total Hardness as CaCO <sub>3</sub>	mg/l	940.0	IS 3025 (Part - 21):1983
5	Total Alkalinity as CaCO <sub>3</sub>	mg/l	220.0	IS 3025 (Part - 23):1986
6	Chloride as Cl	mg/l	1992.8	4500 Cl --- B APHA 23rd Edn: 2017
7	Total Dissolved Solids	mg/l	4100.0	IS 3025(Part -16):1984
8	Aluminium as Al	mg/l	BLQ(LOQ:0.03)	IS 3025 (Part - 55):2003
9	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994
10	Copper as Cu	mg/l	0.02	USEPA Method 200.8:1994
11	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994
12	Lead as Pb	mg/l	0.045	USEPA Method 200.8:1994
13	Sodium as Na	mg/l	1092.0	IS3025 (Part - 45):1993
14	BOD,3 days @27°C as O <sub>2</sub>	mg/l	2.0	IS 3025 (Part - 44):1993
15	Chemical oxygen demand as O <sub>2</sub>	mg/l	16.0	IS 3025 (Part - 58):2006
16	Temperature	°C	29.3	IS 3025 (Part - 9):1984
17	Dissolved oxygen	mg/l	5.8	IS 3025 (Part - 38):1989
18	Salinity	ppt	7.37	2520 A APHA 23rd Edn. 2017
19	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994
20	Turbidity	NTU	10.0	IS 3025(Part - 10):1984
21	Odour	-	Disagreeable	, IS 3025 (Part - 5):1983
22	Taste	-	Disagreeable	IS 3025 (Part - 8):1984
23	Calcium as Ca	mg/l	181.36	IS 3025 (Part - 40):1991
24	Residual free Chlorine	mg/l	BLQ(LOQ:0.1)	IS 3025 (Part - 26):1986
25	Magnesium as Mg	mg/l	128.9	IS 3025 (Part - 46) 1994



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Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH – PO Plant, Manali Express High Way,  
Manali, Chennai - 600068.

Report No. : HECSL/WT/013/170720  
Report Date : 21/07/2020

Sample Description : WATER  
Sample Mark : Bore Well No:1  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 -14/07/2020  
Analysis Commenced On : 14/07/2020


Completed On : 20/07/2020

S.No.	Parameters	Units	Results	Test Method
26	Sulphate as SO <sub>4</sub>	mg/l	183.63	IS 3025(Part - 24):1986
27	Fluoride	mg/l	0.67	IS 3025 (Part - 60):1986
28	Nitrate as NO <sub>3</sub>	mg/l	12.4	IS 3025 (Part 34): 1988
29	Iron as Fe	mg/l	2.91	IS 3025 (Part - 53):2003
30	Arsenic as As	mg/l	0.224	USEPA Method 200.8:1994
31	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994
32	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, NTU- Nephelometric Turbidity Unit,  
°C - Degree Celsius, HU - Hazen Unit, mg/l- Milligrams per litre.

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



  
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Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH – PO Plant, Manali Express High Way,  
Manali, Chennai - 600068.

Report No. : HECSL/MB/005/170720  
Report Date : 21/07/2020

Sample Description : WATER  
Sample Mark : Bore Well No:1  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 -14/07/2020  
Analysis Commenced On : 15/07/2020

Completed On : 17/07/2020

S.No.	Parameters	Units	Results	Test Method
1	Total Coliforms	Per 100ml	Absent	IS 15185 : 2016
2	Faecal coliform	Per 100ml	Absent	IS 15185 : 2016

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Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH – PO Plant, Manali Express High Way,  
Manali, Chennai - 600068.

Report No. : HECSL/WT/014/170720  
Report Date : 21/07/2020

Sample Description : WATER  
Sample Mark : Bore Well No:2  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 -14/07/2020  
Analysis Commenced On : 14/07/2020

Completed On : 20/07/2020

S.No.	Parameters	Units	Results	Test Method
1	pH (at 25 °C)	-	6.86	IS 3025 (Part - 11):1983
2	Electrical conductivity	µS/cm	8100.0	IS 3025 (Part - 14):1983
3	Colour	Hazen Unit	BLQ(LOQ:1.0)	IS 3025(Part - 4):1983
4	Total Hardness as CaCO <sub>3</sub>	mg/l	700.0	IS 3025 (Part - 21):1983
5	Total Alkalinity as CaCO <sub>3</sub>	mg/l	530.0	IS 3025 (Part - 23):1986
6	Chloride as Cl	mg/l	1689.12	4500 Cl --- B APHA 23rd Edn: 2017
7	Total Dissolved Solids	mg/l	3600.0	IS 3025(Part -16):1984
8	Aluminium as Al	mg/l	BLQ(LOQ:0.03)	IS 3025 (Part - 55):2003
9	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994
10	Copper as Cu	mg/l	0.043	USEPA Method 200.8:1994
11	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994
12	Lead as Pb	mg/l	0.045	USEPA Method 200.8:1994
13	Sodium as Na	mg/l	955.0	IS3025 (Part - 45):1993
14	BOD,3 days @27°C as O <sub>2</sub>	mg/l	8.0	IS 3025 (Part - 44):1993
15	Chemical oxygen demand as O <sub>2</sub>	mg/l	56.0	IS 3025 (Part - 58):2006
16	Temperature	°C	29.2	IS 3025 (Part - 9):1984
17	Dissolved oxygen	mg/l	6.0	IS 3025 (Part - 38):1989
18	Salinity	ppt	8.10	2520 A APHA 23rd Edn. 2017
19	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994
20	Turbidity	NTU	110.0	IS 3025(Part - 10):1984
21	Odour	-	Agreeable	IS 3025 (Part - 5):1983
22	Taste	-	Disagreeable	IS 3025 (Part - 8):1984
23	Calcium as Ca	mg/l	201.2	IS 3025 (Part - 40):1991
24	Residual free Chlorine	mg/l	BLQ(LOQ:0.1)	IS 3025 (Part - 26):1986
25	Magnesium as Mg	mg/l	164.5	IS 3025 (Part - 46) 1994



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Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH – PO Plant, Manali Express High Way,  
Manali, Chennai - 600068.

Report No. : HECSL/WT/014/170720  
Report Date : 21/07/2020

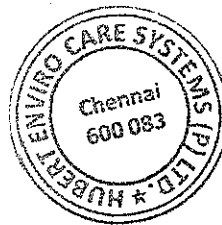
Sample Description : WATER  
Sample Mark : Bore Well No:2  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 -14/07/2020  
Analysis Commenced On : 14/07/2020

Completed On : 20/07/2020

S.No.	Parameters	Units	Results	Test Method
26	Sulphate as SO <sub>4</sub>	mg/l	699.31	IS 3025(Part - 24):1986
27	Fluoride	mg/l	0.61	IS 3025 (Part - 60):1986
28	Nitrate as NO <sub>3</sub>	mg/l	20.6	IS 3025 (Part 34): 1988
29	Iron as Fe	mg/l	5.95	IS 3025 (Part - 53):2003
30	Arsenic as As	mg/l	0.144	USEPA Method 200.8:1994
31	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994
32	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, NTU- Nephelometric Turbidity Unit,  
°C - Degree Celsius, HU - Hazen Unit, mg/l- Milligrams per litre.

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



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Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH – PO Plant, Manali Express High Way,  
Manali, Chennai - 600068.

Report No. : HECSL/MB/006/170720  
Report Date : 21/07/2020

Sample Description : WATER  
Sample Mark : Bore Well No:2  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 -14/07/2020  
Analysis Commenced On : 15/07/2020

Completed On : 17/07/2020

S.No.	Parameters	Units	Results	Test Method
1	Total Coliforms	Per 100ml	Absent	IS 15185 : 2016
2	Faecal coliform	Per 100ml	Absent	IS 15185 : 2016

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Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH – PO Plant, Manali Express High Way,  
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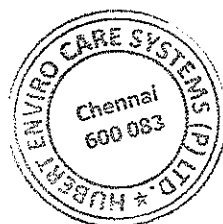
Report No. : HECSL/WW/005/170720

Report Date : 21/07/2020

Sample Description : Sewage Water  
Sample Mark : Sewage Treated Effluent Outlet  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 -14/07/2020  
Analysis Commenced On : 14/07/2020

Completed On : 20/07/2020

S.No.	Parameters	Units	Results	Test Method	Limits
1	Colour	HU	BLQ(LOQ:1.0)	IS 3025 (Part 4) 1983	-
2	Odour	-	Agreeable	IS 3025(Part 5)-1983,Reaff 2006	-
3	Total suspended Solids	mg/l	28.0	IS 3025 (Part 17) 1983	50
4	pH @ 25°C	-	7.20	4500 H+B APHA 23rd Edition: 2017	6.5-9.0
5	Total Dissolved Solids	mg/l	640.0	IS 3025 (Part 16) 1984	-
6	Temperature	°C	28.5	IS 3025(Pt-9):1983 (Reaff:2006)	-
7	Total Residual Chlorine as Cl <sub>2</sub>	mg/l	BLQ(LOQ:0.1)	IS:3025:(Pt26)1986 (Reaff 2009)	-
8	Ammonical Nitrogen as N	mg/l	1.82	IS 3025 (Part 34) 1988	-
9	Total Kjeldahl Nitrogen as N	mg/l	2.63	IS 3025 (Part 34) 1988	-
10	Free Ammonia as NH <sub>3</sub>	mg/l	BLQ(LOQ:0.02)	IS:3025 (Part34):1998 Reaffirmed 2003	-
11	BOD, 3 days @ 27°C as O <sub>2</sub>	mg/l	18.0	IS 3025 (Part 44)1993	20
12	COD as O <sub>2</sub>	mg/l	72.0	IS 3025 (Part 58) 2006	-
13	Lead as Pb	mg/l	BLQ(LOQ 0.1)	IS 3025 (Part 47) 1994	-
14	Chromium (Hexavalent) as Cr <sup>6+</sup>	mg/l	BLQ(LOQ:0.1)	IS 3025 (Part 52) 2003	-
15	Total Chromium as Cr	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part 52) 2003	-
16	Copper as Cu	mg/l	BLQ(LOQ 0.05)	3111 Cu APHA 23rd Edition 2017	-
17	Zinc as Zn	mg/l	BLQ(LOQ 0.01)	IS 3025 (Part 49) 1994	-
18	Nickel as Ni	mg/l	BLQ(LOQ 0.1)	IS 3025 (Part 54) 2003	-
19	Boron as B	mg/l	BLQ(LOQ:0.1)	IS 3025:(Part -57):2003(Reaff 2009)	-
20	Chloride as Cl <sup>-</sup>	mg/l	276.62	IS 3025 (Part 32) 1988	-
21	Fluoride as F <sup>-</sup>	mg/l	BLQ(LOQ:0.2)	IS 3025 part (60):2008	-
22	Dissolved Phosphate as PO <sub>4</sub>	mg/l	BLQ(LOQ:0.02)	IS:3025: (Pt31)1988 (Reaff 2009)	-
23	Sulphate as SO <sub>4</sub>	mg/l	108.74	IS 3025 (Part 24) 1986	-
24	Sulphide as S <sup>2-</sup>	mg/l	BLQ(LOQ:0.04)	IS 3025 (Part 29) 1986	-



Authorized Signatory

Dr. P. ELAIYARAJU  
Assistant Manager

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HECS/Q/FMT/50

**Hubert Enviro Care Systems (P) Ltd.**

# 18, 92nd Street, Ashok Nagar,  
Chennai - 600 083.  
Ph: 42985555 Fax : 42985500  
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**Laboratory Services Division**  
(Chemical & Biological Testing)  
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**TEST REPORT**

Page : 2 of 4

Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH – PO Plant, Manali Express High Way,  
Manali, Chennai - 600068.

Report No. : HECSL/WW/005/170720  
Report Date : 21/07/2020

Sample Description : Sewage Water  
Sample Mark : Sewage Treated Effluent Outlet  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 -14/07/2020  
Analysis Commenced On : 14/07/2020

Completed On : 20/07/2020

S.No.	Parameters	Units	Results	Test Method	Limits
25	Particle Size of Suspended solids	-	Passed through 850 microns	APHA 22nd Edition 2012	-
26	Arsenic as As	mg/l	BLQ(LOQ 0.005)	IS 3025 (Part 37) 1988	-
27	Mercury as Hg	mg/l	BLQ(LOQ 0.001)	IS 3025 (Part 48) 1994	-
28	Cadmium as Cd	mg/l	BLQ(LOQ 0.01)	IS 3025 (Part 41) 1991	-
29	Selenium as Se	mg/l	BLQ(LOQ 0.005)	IS:3025:(Part-56):2003	-
30	Residual Sodium Carbonate as Na <sub>2</sub> CO <sub>3</sub>	mg/l	BLQ(LOQ:1.0)	IS 11624-1986 (Reaff 2009)	-
31	Cyanide as CN	mg/l	BLQ(LOQ:0.01)	IS:3025 (Part27)1986 Reaffirmed 2009	-
32	<b>Pesticides</b>				
	2,4-D	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074	-
	Isoproturon	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074	-
	Malathion	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074	-
	Methyl Parathion	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074	-
	Monochrotophos	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074	-
	Phorate	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074	-
	o,p -DDT	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	p,p'-DDT	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-



Authorized Signatory  
**Dr. P. ELAIYARAJU**  
Assistant Manager

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Report No. : HECSL/WW/005/170720  
Report Date : 21/07/2020

Sample Description : Sewage Water  
Sample Mark : Sewage Treated Effluent Outlet  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 -14/07/2020  
Analysis Commenced On : 14/07/2020

Completed On :20/07/2020

S.No.	Parameters	Units	Results	Test Method	Limits
	o,p-DDD	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	p,p'-DDD	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	o,p-DDE	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	p,p'-DDE	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Endosulphan alpha	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Endosulphan Beta	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Endosulphan Sulphate	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Endosulphan Sulphate	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Alpha HCH	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Beta HCH	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Gamma HCH	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Delta HCH	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Butachlor	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-



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Assistant Manager

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Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH - PO Plant, Manali Express High Way,  
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Report No. : HECSL/WW/005/170720  
Report Date : 21/07/2020

Sample Description : Sewage Water  
Sample Mark : Sewage Treated Effluent Outlet  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 - 14/07/2020  
Analysis Commenced On : 14/07/2020

Completed On : 20/07/2020

S.No.	Parameters	Units	Results	Test Method	Limits
	Chlorpyrifos	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Alachlor	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Atrazine	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Aldrin	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Dieldrin	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
	Ethion	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072	-
33	Phenolic Compounds as C6H5OH	mg/l	BLQ(LOQ:0.001)	IS 3025 (Part 43) 1992	-
34	Percent Sodium as Na	%	36.58	IS:3025,5(Pt 45):1993 (Reaff 2006)	-
35	Oil and Grease	mg/l	BLQ(LOQ:4.0)	IS 3025 (Part 39) 1991	-

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, °C - Degree Celsius,

HU - Hazen Unit, mg/l - Milligrams per liter.

Remarks: STP Outlet as above parameters meets CPCB Standards.

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



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Name of the Client : M/s. TamilNadu Petroproducts Ltd.,  
Address of the Client : ECH - PO Plant, Manali Express High Way,  
Manali, Chennai - 600068.

Report No. : HECSL/WW/010/170720

Report Date : 21/07/2020

Sample Description : Waste Water  
Sample Mark : Treated Effluent Outlet  
Sample Drawn By : Hubert Enviro Care Systems Pvt Ltd  
Sampling/received Date : 14/07/2020 -14/07/2020  
Analysis Commenced On : 14/07/2020

Completed On : 20/07/2020

S.No.	Parameters	Units	Results	Test Method
1	Color	HU	BLQ(LOQ:1.0)	IS:3025:(Part 4)1983
2	Odour	-	Agreeable	IS 3025 (Part5)-1983
3	Total suspended Solids	mg/l	4.0	IS 3025 (Part 17) 1984
4	pH @ 25°C	-	6.36	4500 H+B APHA 23rd Edition: 2017
5	Total Dissolved Solids	mg/l	28496.0	IS 3025 (Part 16) 1984
6	Temperature	°C	28.5	IS 3025 (Part 9):1983
7	Oil & Grease	mg/l	BLQ(LOQ:4.0)	IS 3025 (Part 39) 1991
8	Total Residual Chlorine as Cl <sub>2</sub>	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part 26)1986
9	Ammonical Nitrogen as N	mg/l	0.46	IS 3025 Part (34)1988
10	Total Kjeldahl Nitrogen as N	mg/l	0.72	IS 3025 Part (34)1988
11	Free Ammonia as NH <sub>3</sub>	mg/l	BLQ(LOQ:0.02)	IS:3025 (Part34)1998
12	BOD, 3 days @ 27°C as O <sub>2</sub>	mg/l	8.0	IS:3025 (Part 44)1993
13	COD as O <sub>2</sub>	mg/l	50.0	IS 3025 (Part 58) 2006
14	Lead as Pb	mg/l	BLQ(LOQ 0.1)	IS:3025 (Part 47)1994
15	Chromium (Hexavalent) as Cr <sup>6+</sup>	mg/l	BLQ(LOQ:0.1)	IS 3025 Part (52):2003
16	Total Chromium as Cr	mg/l	BLQ(LOQ:0.01)	IS 3025(Part 52):2003
17	Copper as Cu	mg/l	0.93	IS:3025(Part 42)1992
18	Zinc as Zn	mg/l	0.036	IS:3025 (Part49)1994
19	Nickel as Ni	mg/l	BLQ(LOQ 0.1)	IS:3025 (Part54)2003
20	Boron as B	mg/l	BLQ(LOQ:0.1)	IS 3025:(Part-57):2003
21	Chloride as Cl <sup>-</sup>	mg/l	18736.23	IS 3025 (Part 32) 1988
22	Fluoride as F <sup>-</sup>	mg/l	BLQ(LOQ:0.2)	IS 3025 part (60):2008
23	Dissolved Phosphate as P	mg/l	12.24	IS 3025 (Part 31):1988
24	Sulphate as SO <sub>4</sub>	mg/l	854.32	IS 3025 (Part 24) 1986
25	Sulphide as S <sup>2-</sup>	mg/l	BLQ(LOQ:0.04)	IS:3025 (Part 29)1986



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S.No.	Parameters	Units	Results	Test Method
26	Particle Size of Suspended solids	-	Passed through 850 microns	APHA 23rd Edition : 2017
27	Arsenic as As	mg/l	0.03	IS:3025 (Part37)1988
28	Mercury as Hg	mg/l	BLQ(LOQ 0.001)	IS:3025 (Part48)1994
29	Cadmium as Cd	mg/l	BLQ(LOQ 0.01)	IS:3025 (Part41)1991
30	Selenium as Se	mg/l	0.021	IS:3025 (Part56)2003
31	Residual Sodium Carbonate as Na <sub>2</sub> CO <sub>3</sub>	meq/l	BLQ(LOQ:1.0)	IS 11624-1986
32	Cyanide as CN	mg/l	BLQ(LOQ:0.01)	IS:3025 (Part27)1986
33	<b>Pesticides</b>			
	2,4-D	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074
	Isoproturon	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074
	Malathion	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074
	Methyl Parathion	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074
	Monochrotophos	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074
	Phorate	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074
	o,p -DDT	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	p,p'-DDT	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	o,p-DDD	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	p,p'-DDD	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	o,p-DDE	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	p,p'-DDE	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Endosulphan alpha	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Endosulphan Beta	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Endosulphan Sulphate	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Alpha HCH	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072



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Analysis Commenced On : 14/07/2020

Completed On : 20/07/2020

S.No.	Parameters	Units	Results	Test Method
	Beta HCH	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Gamma HCH	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Delta HCH	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Butachlor	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Chlorpyrifos	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Alachlor	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Atrazine	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Aldrin	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Dieldrin	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/072
	Ethion	mg/l	BLQ(LOQ 0.00001)	HECS/INS/SOP/074
34	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/l	BLQ(LOQ:0.001)	IS 3025 Part (43)1992

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, °C - Degree Celsius,  
HU - Hazen Unit, mg/l - Milligrams per liter.

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



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