Tamilnadu Petroproducts Limited

Ref: TPL – LAB/ 2024/EC Comp/04

7th May- 2024

The Director (S) Ministry of Environment, Forest & Climate Change Integrated Regional Office First Floor, Additional Office Block for GPOA Shastri Bhawan, Haddows Road, Nungambakkam, Chennai – 600 006.

Dear Sir,

Sub: TPL – LAB Plant – Environmental Clearance (EC) – Six Monthly Compliance Report – Oct 2023 to Mar-2024 - reg.

Ref: Ref No: J-11011/469/2021-IA-II(I) dated 28.11.2022

This has reference to the Environmental Clearance (EC) obtained from MoEF&CC, New Delhi for Expansion of Linear Alkyl Benzene (LAB) production from 1,20,000 TPA to 1,45,000 TPA within the existing plant at Manali Industrial Area, Chennai, Tamil Nadu

We herewith attach the EC compliance status report for the period from October 2023 to March 2024 for your kind reference.

Thanking you,

Yours faithfully, For Tamilnadu Petroproducts Limited



Regd. Office & Factory : Post Box No. 9, Manali Express Highway, Manali, Chennai - 600 068. India. Tel. : (0091) - 44 - 25945500 to 09 Telefax : 044-2594 5588 Website : www.tnpetro.com CIN : L23200TN1984PLC010931 TPL GSTIN : 33AAACT1295M1Z6

Environmental Clearance Compliance Status Report For the period from Oct 2023 to Mar 2024

Ref No: J-11011/469/2021-IA-II(I) dated 28.11.2022

(A) Specific Condition

Condition	Compliance
EC will be subject to the decision of Hon'ble	Shall be complied.
NGT (SZ). The project proponent shall	
abide by all orders and judicial	
pronouncements made from time to time	
in the case filed in Hon'ble NGT.	
The company shall comply with all the	Complied
environmental protection measures and	All the environmental protection measure
safeguards proposed in the documents	and safeguards proposed in the document
submitted to the Ministry. All the	submitted to the Ministry will be complied
recommendations made in the EIA/EMP in	All the recommendations made in the
respect of environmental management,	EIA/EMP in respect of environmenta
and risk mitigation measures relating to the	management, and risk mitigation measure
project shall be implemented.	are being implemented.
NOC from the Central Ground Water	Complied
Authority (CGWA)/ Concerned Local	No ground water withdrawal for the
authority shall be obtained before start of	existing & proposed expansion, hence NO
the construction of plant and drawing of	from the Central Ground Water Authorit
the ground water for the project activities,	(CGWA)/ Concerned Local authority is no
State Pollution Control Board / Pollution	envisaged.
Control Committees shall not issue the	Tertiary Treatment Reverse Osmosis (TTR
Consent to Operate (CTO) under Air	water) from CMWSSB is being used for the
(Prevention and Control of Pollution) Act	existing operation and same will be usin
and Water (Prevention and Control of	for the expansion project.
Pollution) Act till the project proponent	
shall obtain such permission.	
As proposed, 2 Nos (1 No of 3MW & 1 No	Being complied
of 6 MW) of the above HFO based DG sets	As committed, 2 Nos of HFO based DG set
shall be replaced with 2 Nos of 7 MW each	(1 X 3MW & 1 X 6.6 MW) have replace
LNG based Gas Engines during this	with 2 Nos of 7 MW LNG based Ga
Financial year 2022-23. As committed, PP	Engines.
shall replace the remaining 1 No of HFO	Remaining 1 No of HFO based DG se
based 6 MW DG set with a Gas Engine	(1X6.6MW) will be removed or replace
within 1 year from the date of issue of EC.	with a Gas Engine in the year-2024.
Total freshwater requirement is 1000 m3	Complied 3
/day which will be met from TTRO supply	
	EC will be subject to the decision of Hon'ble NGT (SZ). The project proponent shall abide by all orders and judicial pronouncements made from time to time in the case filed in Hon'ble NGT. The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission. As proposed, 2 Nos (1 No of 3MW & 1 No of 6 MW) of the above HFO based DG sets shall be replaced with 2 Nos of 7 MW each LNG based Gas Engines during this Financial year 2022-23. As committed, PP shall replace the remaining 1 No of HFO based 6 MW DG set with a Gas Engine within 1 year from the date of issue of EC.

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	from CMWSSB. Necessary permission in this regard shall be obtained from the concerned regulatory authority. The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.	Fresh water requirement of 1000 m3 /day will be met from TTRO supply from CMWSSB. Agreement is executed with CMWSSB, Effluent is treated in the ETP & RO Plant. RO permeate is reused in cooling tower as make up water and RO Reject is reused in TPL - ECH PO Plant process. No waste or treated water is discharged outside the premises.
6	PP shall ensure that effluent shall be treated through existing Effluent Treatment Plant of capacity 300 m ³ /day. Domestic wastewater is being/will be treated in existing STP of Capacity 160 KLD. The plant is being/will be based on Zero Liquid discharge system and hence treated effluent water / will not be discharged outside the factory premises.	 Complied Effluent is treated through existing Effluent Treatment Plant and RO Plant of capacity 300 m³/day each. RO permeate is reused in cooling tower as make up water and RO Reject is sent to TPL - ECH PO Plant and the same is reused in their process. Domestic wastewater is treated in existing STP of Capacity 160 KLD Treated sewage is utilised for green belt development inside the unit premises. ZLDS is being achieved.
7	3D risk study shall be done including consideration of vertical components and submit to IRO, MOEFCC within 6 months.	Complied 3D risk study including consideration of vertical components was conducted through accredited consultant M/s. Efficaz Consulting Services, Chennai. and report submitted to IRO, MOEF&CC.
8	Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.	Complied. Comprehensive water audit conducted through accredited consultant M/s. Hubert Enviro care system, Chennai on Sep-23 and report has been submitted to IRO, MOEF&CC, Chennai.
9	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm	Complied Dedicated storm water drains are provided
	water drain shall be passed through guard pond.	to avoid Process effluent/any wastewater mix with storm water. Storm water drain is passed through collection pit.

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	Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.	Hazardous chemicals are stored in dedicated tanks located in tank farms. Necessary safety measures are provided in the tank farm.
11	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.	Complied Hazardous wastes are being disposed as per the authorisation issued by TNPCB. (HWA 22HFC30934995 dated 10/01/2022. Valid up to 31.03.2026). RLNG is used as fuel in boiler hence no generation of ash.
12	Regular VOC monitoring shall be done at vulnerable points.	Complied LDAR survey (VOC Monitoring) is being carried out at vulnerable points periodically. Latest LDAR survey has been conducted in April'24
13	The oily sludge shall be subjected to melting point for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.	Complied Oil sludge is being disposed to authorised TSDF for incineration as per the Hazardous Waste Authorisation issued by TNPCB. (HWA No. 22HFC30934995 dated 10/01/2022. Valid up to 31.03.2026).
14	Oil catchers / oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.	Complied Oil traps are provided in rain/ storm water drainage system inside the factory premises.
15	 The company shall undertake waste minimization measures as below: a) Metering and control of quantities of active ingredients to minimize waste. b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. c) Use of automated filling to minimize spillage. d) Use of Close Feed system into batch reactors. e) Venting equipment through vapour recovery system. 	 Complied a) Flow meters are provided to monitor and control of raw material consumption and to minimise waste. b) Off gas and Slop oil is reused as fuel in heaters. c) Automated filling system with magnetic flow meter is provided for product despatch to avoid spillage. d) All Raw material & products are handled in pipelines. e) Off gas generated are routed through Pilot Gas Balance Drum and reused as fuel in heaters.

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wastewater generation.	wastewater g	-		reduce
The green belt of 5-10 m width shall be	Being complied	eneratio	11.	
developed in 8.76 Ha i.e. nearly 54.12% of	-	anad 2 C	E Acros (0 1 2 5 0/
the total project area, mainly along the	We have develop			
 plant periphery, in downward wind	of green belt ar		n the pre	mises
	(No. of Trees –			
direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Development of Green belt in the 18 Acre land area (at a distance of 0.36 km, NE from	 As per the EC condeveloped a group outside the pressort outside the pressort of the pressort outside the pressort outside	een belt mises at om LAB overage.	of 18 Acr a distand site to ac (No. of tr	re (45 % ce of hieve 4
the project site) shall be done to compensate for the deficit Green Belt	Green Belt Detail	Area Acre	%	Trees
(30.875%) for LAB Project within 1 year.	Existing GB	3.65	9.125	3800
Status of development of greenbelt in this	(inside)			
area shall be informed to the IRO, MOEFCC regularly.	GB is under	18.00	45.000	18000
regularly.	progress near			
	the plant. Total Green	21.65	54.125	21800
	Belt	21.05	54.125	21000
	 developed, the shave been developed ant. Tree & flower developed on lake and fence Greater Chen Greenery of C 1400 Nos of avel in highway media 	loped ou plantat the ban ing prov nai Corp Chennai o nue plar	ion has be ks of Kor ided unde oration city scher	the een attur er ne.
	 We have deve 			lt area c
	around 15.14	2	-	
	premises		Morai,	Village
	Pandeswaran			-
	village, Thirus			
	– 2023. (No. 15000).	of tree	sapling	planted
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TPL – LAB Plant - EC Compliance Report

17	As per the Ministry's OM dated 30.09.2020	Being complied
	superseding the OM dated 01.05.2018	As per the Ministry's OM dated 30.09.2020
	regarding the Corporate Environmental	superseding the OM dated 01.05.2018,
	Responsibility, and as per the action plan	Corporate Environmental Responsibility
	proposed by the project proponent of Rs.	amount for the proposed project is
	3.6 Crores to address the socio-economic	calculated as Rs. INR 3.6 Crores and
	and environmental issues in the study area,	amount will be spent towards the socio-
	the project proponent, as committed, shall	economic and environmental issues in the
	provide education funds in technical	nearby communities.
	training centres / support in nearby	Action plan is prepared and will be
	village's schools, support in health care	completed within the time schedule as
	facilities, drinking water supply and funds	proposed.
	for miscellaneous activities like solar	
	streetlights, battery, solar panel etc., in the	
	nearby villages. The action plan shall be	
	completed within time as proposed.	
18	The project proponent shall ensure 70% of	Being Complied
	the employment to the local people, as per	Preference has been given to local people
	the applicable law. The project proponent	for employment as per the rules &
	shall set up a skill development	regulation of company and will be ensured.
-	centre/provide skill development training	Skill development centre will be provided,
	to village people.	and skill development training will be
		imparted to village people.
19	A separate Environmental Management	Complied
	Cell (having qualified person with	A separate Environmental Management
	Environmental Science / Environmental	cell is available with environmental science
	Engineering / specialization in the project	qualified personnel.
	area) equipped with full-fledged laboratory	
	facilities shall be set up to carry out the	carryout Environmental Management and
	Environmental Management and	Monitoring functions.
20	Monitoring functions.	Complied
20	The unit shall make the arrangement for protection of possible fire hazards during	Complied
		Firefighting system is provided as per the Tamilnadu Factories Rules.
	- ·	Fire hydrant system along with hydrants,
	handling. Firefighting system shall be as per the norms.	fire monitors, portable fire extinguishers,
		foam pourers, sprinkler system, and flame
		detectors, etc are provided in the process
		as well as in the storage areas for
		protection of possible fire hazards during
		manufacturing process in material
		PETROPO
		handling.

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		Fire license obtained from Tamilnadu Fire
		& Rescue services, Govt. of Tamilnadu.
		(Renewal Fire license validity is up to
		19.09.2024).
21	Storage of raw materials shall be either in	Complied
	silos or in covered areas to prevent dust	Raw materials are stored in closed storage
	pollution and other fugitive emissions. All	tanks to prevent dust pollution and other
	stockpiles should be constructed over	fugitive emissions.
	impervious soil and garland drains with	Storage Tanks are constructed over
	catch pits to trap runoff material shall be	concrete floor and dykes are provided to
	provided. All Internal roads shall be paved.	trap runoff material.
	Industrial vacuum cleaner shall be provided	All roads are paved properly, and roads are
	to sweep the internal roads. The Air	being cleaned by using industrial vacuum
	Pollution Control System shall be	cleaner.
	interlocked with process plant/machinery	The Air Pollution Control Systems will be
	for shutdown in case of operational failure	interlocked with process plant/ machinery
	of Air Pollution Control Equipment.	for shutdown in case of operational failure
		of Air Pollution Control Equipment.
22	Continuous online (24x7) monitoring	Complied
	system for stack emissions/effluent shall	Emission Monitoring system
	be installed for measurement of flue gas	Online Continuous Emission Monitoring
	discharge and the pollutants	system (OCEMS) is installed in the
	concentration, and the data to be	following stacks to monitor PM, SO2, NOx
	transmitted to the CPCB and SPCB server.	and CO parameters and the monitoring
	For online continuous monitoring of	data is being transmitted to the CPCB and
	effluent, the unit shall install web camera	SPCB server.
	with night vision capability and flow meters	OCEMS provided at the following locations.
	in the channel/drain carrying effluent	1) Stack attached to Hot oil heater.
	within the premises.	2) Stack attached to Hydrotreater heater.
		3) Stack attached to PACOL heater.
		4) Stack attached to Boiler.
		5) Stack attached to CPP DG Sets and
		6) Camera installed to view Flare stacks.
		OCEMS connectivity details attached as
		Effluents monitoring system
		Effluents are transferred through pipelines
		and not through channel/drain and hence
		online flowmeters are provided at the inlet
		and outlet of ETP and RO plant.
		Flow meters are provided at the following
		locations and connected to TNPCB/CPCB.
		1) Inlet & Outlet of the ETP,

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		2) RO Feed
		3) RO Permeate
		4) RO Reject and
		5) Combined effluent outlet from LAB -
		RO Reject & HCD to ECH PO Plant
		process.
		Online Continuous Effluent Monitoring
		system (OCEMS) is installed at the
		combined effluent outlet from LAB & HCD
		plants to ECH PO Plant process for
		monitoring PH, BOD/COD, TSS and the data
		is being transmitted to the CPCB and SPCB
		server.
23	PP to set up occupational health Centre for	
	surveillance of the worker's health within	Occupational health centre is available in
	and outside the plant on a regular basis.	the site with the following facility.
	The health data shall be used in deploying	1) Doctor
	the duties of the workers. All workers &	2) Nurse, round the clock.
	employees shall be provided with required	3) Ambulance
	safety kits/mask for personal protection.	Periodic medical check-up for all
	•	employees is being done at regular
		interval. Records are maintained. The
		health data is being used in deploying the
		duties of the employees.
		Primary Health Care Centres (PHCC) and
		mobile clinic are provided at nearby
		villages (Vichoor, Sadayankuppam,
		Periyasekkadu, Kannampalayam&
		Seemavaram) to cater to the primary
		health care needs of the peoples residing
		nearby areas.
		Required Personal Protective Equipment
		(PPEs) including COVID mask are being
24	The National Emission Standards for	given to all employees & contractors.
24		Complied
	Petrochemical (Basic & Intermediates)	The National Emission Standards for
	issued by the Ministry vide G.S.R. 820 (E)	Petrochemical (Basic & Intermediates)
	dated 9th November, 2012 as amended	issued by the Ministry vide G.S.R. 820 (E)
	time to time shall be followed.	dated 9th November, 2012 as amended
		time to time is being followed, stropRODUCE
25	Recommendations of mitigation measures	Complied (P)
	from possible accident shall be	
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implemented based on advanced risk	Adequate safety measures are provided to
Assessment studies conducted for worst	mitigate possible accident.
case scenarios using latest techniques.	Risk Assessment studies were conducted
	for worst case scenarios using latest
×	techniques through accredited consultant
	and the recommendations given in the risk
	assessment studies are being
	implemented.
	Existing safety measures:
	• TPL – LAB has a well laid individual Fire
	Water pumping system with Jockey
	pumps, Main motor driven pumps and
	Diesel engine driven pumps.
	 Fire hydrant ring header runs
	throughout the plant, covering the
	entire LAB plant with sufficient
	numbers of hydrants and monitors as
승규는 것을 잘 물었다. 승규는 것 않는 것을	per the Tamil Nadu Factories Rules
	requirements.
	 Sprinkler systems are provided in the
이 전에 걸렸던 그렇는 먹습니다. 다 있다.	storage tanks storing class A chemical.
	 Nitrogen blanketing system is provided
	in the benzene storage tanks.
	Benzene Online analyzer is provided.
	LNG, LPG, Hydrogen, HF and HC
	detectors are provided at handling
	areas.
	Necessary PPEs are provided.
	Hydrant system, Foam pourer, water
	monitor, are provided.
	• Fire alarm manual call points provided.
	Dyke walls are provided for all storage
	tanks to contain the liquid in case of any
	leakages.
	Risk assessment study -
	Recommendations.
	Fixed water spray system is provided to
	HF handling area to minimize the HF
	dispersion into surroundings.
	Online HF leak detectors are provided in
	and around HF storage and handling
	areas.
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	in the six-monthly compliance report being submitted to concerned authority.	Conducted awareness programs on ban on use of "one time use and throwaway plastic" and the alternatives for or the banned plastics Eco-friendly alternatives
	published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included	use and throwaway plastic" items is provided at the entrance of the industry.
	on the ban of Single Use Plastic in order to ensure the compliance of Notification	Display board made of metal with pictorial representation of the banned "one time
	project area as well as its surrounding area	Free Zone'.
	among the people working within the	TPL plant premises is declared as 'Plastic
26	PP shall sensitize and create awareness	Complied
		 Periodic training is given to all employees using PPEs and handling emergencies. Periodic thickness survey is being carried out for HF pipelines, storage tank and vessels. Standard Operating Procedures is available to take care of emergencies. Operator training and retraining are being carried out continuously and Mock Drills are being carried out regularly on identified scenarios. Work Permit System is being strictly enforced. Explosion proof electrical equipment and lighting features are provided in the classified area. Smoking and carrying smoking accessories are strictly prohibited. Ensure that safe work practices are followed in premises, including hot work procedures in areas near flammable inventories. Safety Procedures and Do's and Don'ts is prepared and displayed in handling and storage area. Periodic inspection of Pipelines and painting are being carried out to avoid corrosion and subsequent leak.
		• Chemical Protective suit with dual air system and necessary PPE are provided.

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		such as banana leaf, arecanut palm plate, stainless steel, glass porcelain plants/cups cloth bag, jute bag etc are being encouraged for use.
	General Condition	
1	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection	Complied. No further expansion or modification in the plant will be carried out without prior approval of the Ministry of Environment, Forests & Climate Change. in case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference will be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.,
	measures required, if any.,	
2	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Complied Energy efficient LED bulbs are being used for lighting purpose to conserve energy and environment betterment.
3	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time).	Complied Acoustic hoods, silencers, enclosures, etc., are provided at DG sets to keep the noise level within the prescribed standards. All machineries like blowers, compressors are being maintained properly and preventive maintenance are taken as per the schedule to control the noise levels. Ambient noise levels are being monitored periodically through in-house laboratory and TNPCB laboratory.
4	The company shall undertake all relevant measures for improving the socio- economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare	Being Complied All relevant measures will be taken towards the improvement of socio-economic conditions of the surrounding area. Action plan is prepared to undertake eco- developmental measures including community welfare measures ander Corporate Environmental Responsibility

	measures in the project area for the overall	(CER) involving local villages and
	improvement of the environment.	administration in the project area for the overall improvement of the environment.
		Following community welfare measures
		are taken under CSR activities.
		Primary Health Care Centre (PHCC) is
		provided at following location in Manali
		area to cater to the primary health care
		needs of the peoples residing nearby areas.
		Sadayankuppam
		Vichoor
		Periyasekkadu
		Kannampalayam
		Seemavaram
		Mobile Primary Health Care Centre
		(Dr. Mobile).
		Constructed rest rooms in Government
		schools at following location in, Manali.
		Government high school at Manali
		New Town
		Government high school at Redhill
		 Government high school at Vichoor
5	The company shall earmark sufficient funds	Being Complied
	towards capital cost and recurring cost per	Sufficient funds are earmarked towards
	annum to implement the conditions	capital cost and recurring cost per annum
	stipulated by the Ministry of Environment,	to implement the conditions stipulated by
	Forest and Climate Change as well as the	the Ministry of Environment, Forest and
	State Government along with the	Climate Change as well as the State
	implementation schedule for all the	Government and implementation schedule
	conditions stipulated herein. The funds so	is prepared and being followed.
	earmarked for environment management/	Funds earmarked for environmental
	pollution control measures shall not be	management / pollution control measures
	diverted for any other purpose.	will not be diverted for any other purpose.
6	A copy of the clearance letter shall be sent	Complied
	by the project proponent to concerned	No suggestion was received from
	Panchayat, Zilla Parishad/Municipal	Panchayat / Municipal corporation urban
	Corporation, Urban local Body and the local	local body and local NGO while processing
	NGO, if any, from whom suggestions/	the proposal.
	representations, if any, were received	
	while processing the proposal.	
7	The project proponent shall also submit six	Being Complied
	monthly reports on the status of	
	compliance of the stipulated	PETROPROD

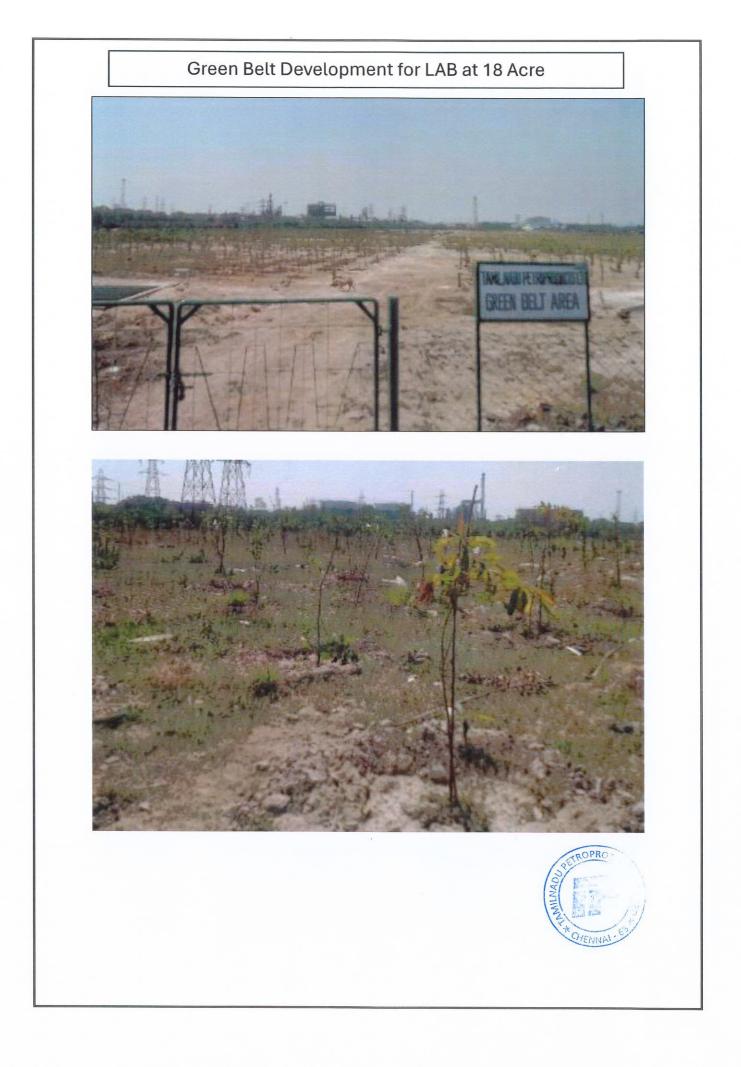
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	Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Six monthly reports on the status of the compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) will be submitted to MOEF Regional Office/ the Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six- monthly compliance status report are uploaded in our company's website (www.tnpetro.com) and also will be updated periodically.
8	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted 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 environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	Being Complied The environmental statement (Form V) is being submitted to TNPCB once in a year before 30 th Sep every year. Environmental statement (Form V) for the year 2022 – 2023 was submitted to TNPCB on 27.09.2023. The six-monthly compliance status of environmental clearance conditions including results of monitored data is being submitted to MOEF Regional Office through e-mail. A copy of Form V and six-monthly compliance status of environmental clearance conditions were uploaded in the company's website. (www.tnpetro.com)
9	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be	Complied Detail of the Environmental clearance obtained for the project was published in English & Tamil newspapers (The Financial Express on 03.12.2022 and Makkal Kural on 02.12.2022) as public notice advertisements. Advertisements were submitted to the Regional Office, MOEFCC on 27.12.2022.

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	forwarded to the concerned Regional	
	Office of the Ministry.	
10	The project authorities shall inform the	Shall be complied.
	Regional Office as well as the Ministry, the	The details of date of financial closure, final
	date of financial closure and final approval	approval of the project by the concerned
	of the project by the concerned authorities	authorities and the date of start of the
*	and the date of start of the project.	project will be submitted to IRO, MOEFCC.
11	This Environmental clearance is granted	Shall be complied.
	subject to final outcome of Hon'ble	
	Supreme Court of India, Hon'ble High	
	Court, Hon'ble NGT and any other Court of	
	Law, if any, as may be applicable to this	
0	project.	









Coordinates of the Proposed Green belt Area



Google image showing the connectivity of existing and proposed greenbelt site location.



TPL – LAB Plant Environmental Clearance - Newspaper Advertisement



கலினால் காட்சி (11) பிற ஒலி ஒலி சாதலங்கம் (0.1150 மூலம் நடத்தப்படும் அப்பதாண போதுக் கூட்டம் ஆற்த்த அறியிப்பு மற்றும் மின்னது வாக்களில், அறித்த அமைப்

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Tamilnadu Petroproducts Limited

Regd.Office & Factory: Manali Express Highway,

Manali, Chennai 600 068.Telefax: 044-25945500

CIN: L23200TN1984PLC010931

Website: www.tnpetro.com E-mail: secy-legal@tnpetro.com PUBLIC NOTICE This is to inform that the Ministry of Environment,

இக்கடிதத்தின் நகலை மத்திய சுற்றுச்சூழல், வனம் மற்றும் காலநிலை மாற்றம் அமைச்சகத்தின் இணையதளத்திலும் (http://parivesh.nic.in) காணலாம்.

இடம் : சென்னை - 600068 தேதி: 02.12.2022

துணை பொது மேலாளா் - மனிதவளம்

Tamil Newspaper – Makkal Kural dated 02.12.2022

HUBERT ENVIRO CARE SYSTEMS P.LTD

Water Audit Report of M/s. Tamilnadu Petroproducts Limited LAB Plant



Client



M/s. TAMILNADU PETROPRODUCTS LIMITED (TPL)

Manali Industrial Area Taluk: Thiruvottiyur District: Chennai State State: Tamil Nadu

Consultant



Hubert Enviro Care Systems P. Ltd Chennai



WATER AUDIT REPORT



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NADU PETROPRODUCTSLTD
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1. INTRODUCTION

Hubert Enviro Care Systems Pvt. Ltd, Chennai was entrusted by M/s. TAMILNADU PETROPRODUCTS LIMITED (TPL) as an external consultant to conduct the water audit on the following aspects,

- 1. Water consumption for domestic and industrial applications
- 2. Sources of waste water generation
- 3. Remediation measures to optimize and discharge wastewater generations within the industrial premises

Tamil Nadu Petroproducts Limited (TPL) is a joint venture promoted with equity participation by Tamil Nadu Industrial Development Corporation Limited (TIDCO) - wholly owned by the Government of Tamil Nadu and Southern Petrochemical Industries Corporation Ltd. (SPIC) & with remaining equity contributed by around 80,000 public shareholders. TPL is a listed company on Bombay Stock Exchange and National Stock Exchange. M/s. SPIC Limited has diverse interest ranging from Fertilizers, Petrochemicals& other services. TIDCO is a public financial institution engaged in promoting industries in the State of Tamil Nadu.

TPL was established in 1984 at Manali, Thiruvallur district in Tamil Nadu State to manufacture Linear Alkyl Benzene (LAB), an industrial intermediary chemical, which finds application in manufacture of detergents and cleaning agents.

TPL acquired its Heavy Chemicals Division (HCD) from SPIC in the year 2000, which manufactures Chloro Alkali Comprising Caustic Soda & Chlorine, which are widely used industrial chemicals in Textile, Paper and Pulp, Soaps & Detergents and Aluminium industries in India.

TPL established its Propylene Oxide manufacturing facility in the year 2019, in the existing ECH plant, which is used as a key raw material in the manufacture of Polyol.

TPL commenced its Linear Alkyl Benzene (LAB) facility in 1987 with technology from UOP, USA. The LAB manufacturing facility is integrated with the production unit of intermediate Normal Paraffin.



2. SITE VISIT AND DATA COLLECTION

HECS, Chennai team visited M/s. Tamil Nadu Petro Products Limited on 13.09.2023 to 15.09.2023 for technical discussion, water audit kick off meeting, site visit and data collection. Water audit check list is submitted to the client and the following details have been collected from the checklist sheet and the consent order from the Tamil Nadu Pollution Control Board.

Table	1:	Details
-------	----	---------

1.	Name of the company/ Industry/ Unit & Address:	Tamil Nadu Petro products Limited (TPL) - LAB Plant 265 (Part), 266 (Part), Manali Industrial Area, Manali village, Thiruvottiyur Taluk, Chennai District, Tamil Nadu	
2.	Contact Person:	Mr. Senthil Kumar D - whole time director	
3.	Audit Period:	2023-24	
4.	Company / Industry / Unit details & Manufacturing details:	Manufacturing of LINEAR ALKYL BENZENE	
5.	No of Employees Staffs	333 Nos. (Including contract workers)	





2.1. LAYOUT OF THE UNIT

P



Figure 1: layout of the project



2.2. BUILT UP AREA DETAILS

Table 2: Extend land details

Extent of Land	Acres
a) Total area	40.0
b) Built up area	34.85
c) Solid waste storage / disposal area	1.0
d) Green Belt / Irrigation area	3.65
e) Vacant area	0.5

2.3. GREEN BELT AREA AVAILABLE

Table 3: Green Belt Area Details

Green Belt Detail	Area (in Acres)	%	Trees
Existing GB (inside plant)	3.65	9.125	3800
Proposed GB at outside plant.	18.00	45.000	18000
Total Green Belt	21.65	54.125	21800

2.4. POWER REQUIREMENT

Table 4::Details of Power Requirement

Description	Unit	Existing	Proposed	After Expansion	Source
Power requirement	MW	7.5	2.5	10	Captive Generation

2.5. DG DETAILS WITH CAPACITY AND NOS.

Table 5: DG details

1	DG Set 3.2 MW
2	DG Set 6.6 MW
3	DG Set 6.6 MW



2.6. SOURCES OF WATER

a) CMWSSB -TTRO water 2039 KLD

2.7. WATER CONSUMPTION DETAILS (LIT / KL) / DAY:

Table 6: Water Consumption Details

PARTICULARS	EXISTING	EXPANSION
Source of Water - TTRO	2039	1170
WCI (Cooling and boiler feed)	134 040	1025 5
WCII (Domestic)	60	40
WCIII (Process – Easily biodegradable)	639	105
WCIV (Process-Non easily biodegradable)		

NOTE: Existing values updated as per CTO

2.8. EFFLUENT ARISING FROM THE INDUSTRY / KLD

Table 7: Details of Effluent Arising from The Industry / KLD

PARTICULARS	EXISTING	EXPANSION
Sewage	60	35
Trade Effluent	1164	180

2.9. EXISTING ETP /STP DETAILS IF ANY

SEWAGE TREATMENT PLANT

Table 8: Details of Sewage Treatment Plant

S. No	Name of the Treatment Unit	No. of Units	Dimensions (m)
1.	Collection Tank	01	11.5 X 7.8 X 4.0m
2.	Screen chamber	01	1.0 X 1.0 X 1.0m
3.	Aeration Tank	01	8.0 X 8.0 X 2.5m
4.	Clarifier-1	01	4.0 Dis X 2.5m
5.	Treated Water Tank	01	4.5 X 4.5 X 4.5 m
6.	Sludge Drying Bed	04	5.0 X 5.0 X 5.0m

Sewage Treatment Plant - Proposed

- Existing STP Capacity is adequate for treating the additional quantity of effluent generated from the proposed expansion.
- No changes in existing STP components.
- Treated sewage is utilized for Green Belt Development.





EXISTING ETP

Table 9: Existing ETP details

S. No	Name of the Treatment Unit	No. of Units	Dimensions in meters
1	Oily process water Stream Pit	01	14 x 2.25 x 5.5
2	Collection Tank	01	3.04 x 1.524 x 4
3	Tilted Plate Separator	01	3.84 x 1.2
4	API Separator	01	25 x 2.0 x 1.0
5	Recycle sump	01	2.05 x 2.8
6	Low Rate Bio Filter	01	3.5 x 3
7	Settling Tank	01	2.8 x 6.2 x 3
8	Neutralizing pit	01	8.0 x 8.0 x 2.5
9	Primary Neutralizing pit	01	2.5 x 2.8 x 3
10	Secondary Neutralizing pit	01	2.5 x 2.8 x 2.1
11	Clarifier	01	4.0 x 2.5
12	PolishingTank-17nos.	01	2.8 x 2.8 x 2.2
13	V Notch chamber-4nos.	02	1.2 x 2.8 x 1.2
14	Final mixing Chamber-8nos.	01	2.0 x 2.0 x 2.0
15	Sand Filter	01	1.4 x 3.2
16	Sludge Drying Beds	04	5.0 x 5.0 x 0.8
17	Guard Pond	01	57m x 30m x 3
	RO PLANT 300KLD		

RO PERMEATE WATER RECYCLED IN COOLING TOWER

RO REJECT REUSED IN ECH-PO PLANT PROCESS

3. Actual Water Consumption based on the site visit

3.1. Domestic Purposes

Table 10: Actual Water Consumption for domestic purposes

Water calculation as per NBC code			
Total number of employees / visitors	_	333	
Water requirements as per NBC code	-	45 LPCD	
(Domestic – 20, Flushing – 10)			
(Bathing facilities are not provided)			
Total water requirements (Domestic)	333 * 45	15 KLD	
Employees Kitchen & Canteen usage (client data)	10 KLD (Drinking	water)	
Contractors Canteen usage	9 KLD		
Total Domestic water requirement	34 KLD		







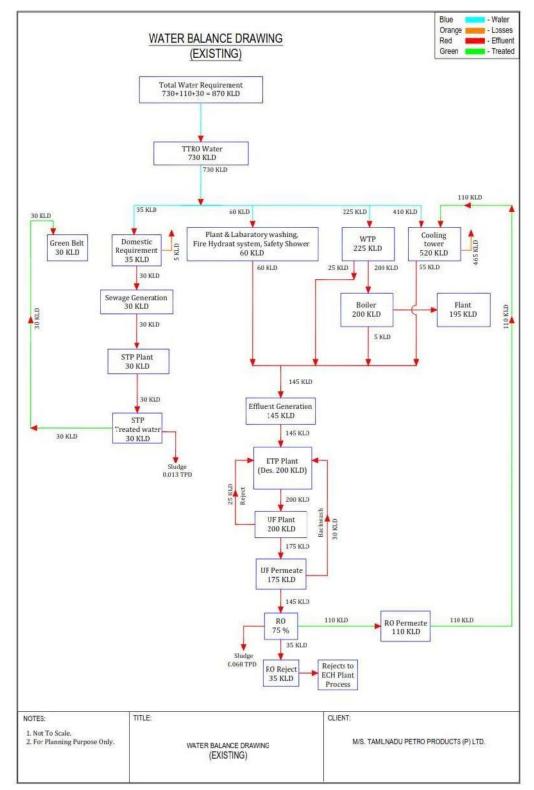


Figure 2: Water Balance Diagram





S. No	Purpose	Quantity (KLD)	Percentage of total use
1	Domestic Water Requirement	15.0	2.28
2	Hand wash water	2.0	0.30
3	Kitchen vessels washing & cooking	17.0	2.58
	Total Domestic Water	34.0	5.17
4	For water treatment plant (DM water generation)	80.0	12.17
5	Fire hydrant and plant safety shower	68.50	10.42
6	Water requirement for cooling tower	353.0	53.72
7	RO permeate for makeup CT	121.50	18.50
8	Total water for plant usage	623.0	94.83
	Total Water requirement	657.0	100

Table 11: Actual Total Water Requirement per day in TPL -LAB

Total water requirement -657.00KLD

3.3. SEWAGE GENERATION DETAILS

Table 12: Sewage Generation Details

Domestic Sewage generation as per consent order	60 KLD
Domestic Sewage generation as per calculation	33.5 KLD

3.4. EFFLUENT GENERATION DETAILS

Table 13: Effluent Generation Details

Total Effluent Generation	137 KLD
---------------------------	---------





3.5. PHOTOGRAPH



r

API Oil Separator



Low Rate Bio Filter (LRBF)



Tilted Plate Separator



Polishing Tank



Primary & Secondary Neutraliser

Clarifter







Figure 3: photograph of existing ETP units

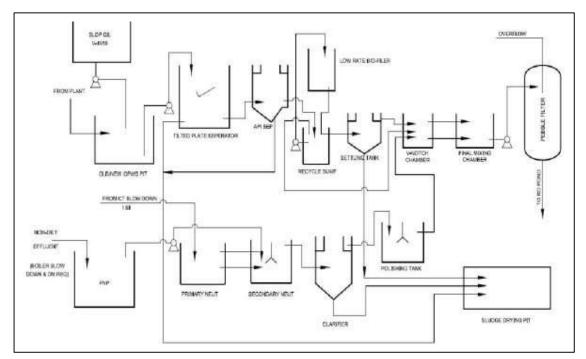


Figure 4: process flow diagram of existing ETP





3.6. ETP COMPONENTS & SIZE:

Table 14: Existing RO Components & Size

S.No.	Type of Treatment	Instrument	Size (m)
		Oily process water Stream Pit	14 x 2.25 x 5.5
			1T A 2.23 A 3.3
1	Oily	Collection Tank	3.04 x 1.524x 4
	Effluent Treatment	Tilted Plate Separator	3.84 x 1.2
		API Separator	25 x 2.0 x 1.0
		Recycle sump	2.05 x 2.8
		Low Rate Bio Filter	3.5 x 3
		Settling Tank	2.8 x 6.2 x 3
		Neutralizing pit	8.0 x 8.0 x 2.5
2	Non Oily Effluent Treatment	Primary Neutralizing pit	2.5x 2.8 x 3
		Secondary Neutralizing pit	2.5x 2.8 x 2.1
		Clarifier	4.0 x 2.5
		Polishing Tank – 17 nos.	2.8 x 2.8 x 2.2
	Oily &Non Oily	V-Notch chamber – 4 nos.	1.2 x 2.8 x 1.2
3	Effluent Treatment	Final mixing Chamber – 8 nos.	2.0 x 2.0 x 2.0
		Sand Filter	1.4 x 3.2
		Sludge Drying Beds – 4 nos.	5.0 x 5.0 x 0.8





4. RO PLANT

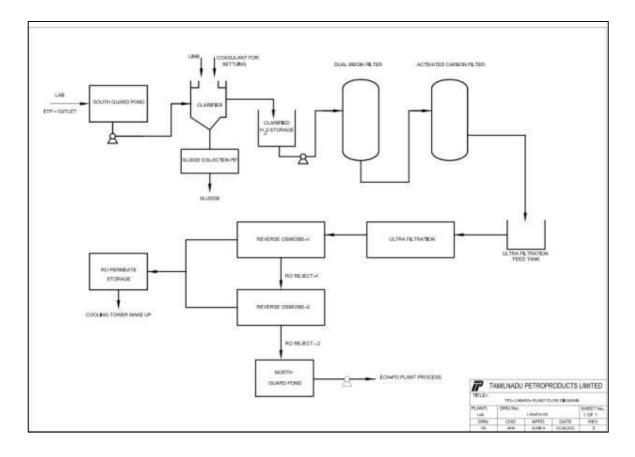


Figure 5: Flow Diagram of RO Plant



Figure 6: Photograph of Existing RO plant





RO CAPACITY - 300 KLD

EXISTING RO COMPONENTS & SIZE

Table 15: existing RO components & size

S. No.	Tank Name	Capacity (KL)
1.	HRSCC Feed Pond (south guard Pond)	3000
2.	Filter feed tank	15
3.	RO feed tank	15
4.	RO final product tank (RO 1& 2 Permeate tank)	15
5.	RO-2 feed tank (RO-1reject tank)	5
6.	HRSCC (High rate solid contact clarifier)	75
7.	Sludge pits (4*1)	4
8.	RO-2reject Pond (North guard Pond)	1000

RO MEMBRANE DETAILS

Table 16:RO membrane details

Description	Membrane	Quantity (Nos.)
RO-1	Thin Film Composite membrane (Brackish membrane)	18
RO-2	Thin Film Composite membrane (sea water membrane)	6

5. SITE INSPECTION & SAMPLE TESTING

HECS and Tamil Nadu Petro products Limited visited all the water use facilities in industrial premises. Sewage samples were collected and the quality parameters were tested were tested as per IS 3025. The detailed list of sampling location and its quality characteristics are mentioned in section 5.1.

5.1. TEST REPORTS

TEST REPORT

Page: 1 of 1

HECS

Report No. 1 HECSL/WW/010/220923 Report Date 1 30/09/2023

Name of the Client	: M/s. TPL Lab
Address of the Client	: Manali
Sample Description	Waste Water
iample Mark	: Fire Water
Sample Drawn By	: Hubert Enviro Care Systems (P) Ltd.,
Sampling received Date	: 22/09/2023 -22/09/2023
Analysis Commenced On	: 22/09/2023
ULR No.	: TC578623000015186F

5

Completed On : 30/09/2023

S.No.	Parameters	Units	Results	Test Method
1	Total sespended Solids	mg/1	20.0	IS 3025 (Part 17) 1984
2	pH sg 25°C	-	8.72	IS 3025 (Pwt 11) 2022
3	Total Dissolved Solids	ngī	668.0	1S 3025 (Part 16) 1984
4	Oil & Grease	mgil	BLQ(LOQ 4.0)	15 3025 (Part 39) 1991
3	BOD, 3 days @ 27°C as 02	mg/l	BLQ(LOQ 1.0)	IS:3025 (Part 44)1993
6	COD as O2	mg/l	BLQ(LOQ 4.0)	IS 3025 (Part 58) 2006
7	Sulphate as SO4	mg-l	12.27	1S 3025 (Part 24) 1986
8/	Turbidity	NTU	0.8	15:3025 (Part-10) 1984
9	Electrical Conductivity @ 25°C	pS/em	983.0	IS 3025 (Part-14) 1983
10	Calcium as Ca	mg/l	32.0	1S 3025 (Pan 40) 1991
11	Magnesium as Mg	mg/l	19.2	IS 3025(Part 46):1994
12	Reactive Silica as SiO2	mgl	2,45	15 3025 (Part 35): 1988
13	Nittate	mg/l	9.065	15 3025 (Part 34): 1988
14	Methyl Orange Alkalinityas CaCO3	mgd	160.0	15 3025 (Part 23) 1986
15	Chloride as Cl	mg/3	169.94	1S 3025 (Part 32) 1988
16	Total hardeess as CaCO3	mg/1	160.0	15 3025 (Part 21): 1983

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l- Milligrams per litre.

End of Report





TEST REPORT

Page: 1 of 1

Report No. : HECSL/WW/012/220923 Report Date : 30/09/2023

Name of the Client	: M/s. TPL Lab	Report Date = 30/09/2023
Address of the Client	: Manali	
Sample Description	: Waste Water	
Sample Mark	: Boiler BlowDown Water	
Sample Drawn By	: Hubert Enviro Care Systems (P) Ltd.,	
Sampling received Date	: 22/09/2023 -22/09/2023	
Analysis Commenced On		Completed On ‡ 30/09/2023
ULR No.	± TC578623000015188F	

S.No.	Parameters	Units	Results	Test Method
1	Total suspended Solids	mg/l	1.0	IS 3023 (Part 17) 1984
2	pH of 25°C	1	10.59	15.3025 (Part 11) 2022
3	Total Dissolved Solids	mg/l	3688.0	IS 3023 (Part 16) 1984
4	Oil & Grease	mg/l	BLQ(LOQ 4.0)	15 3025 (Part 39) 1991
5	BOD, 3 days (ii) 27°C as O2	mg/l	8.0	IS:3025 (Part 44)1993
6	COD as O2	mg/l	32.0	15-3025 (Part 58) 2006
7	Sulphate as SO4	mg/l	1071.38	IS 3025 (Part 24) 1986
8	Turbidity	NTU	0.7	IS:3025(Part-10):1984
9	Electrical Conductivity @ 25°C	µS/cm	4610.0	IS:3025:(Purt-14):1983
10	Calcium as Ca	mg/l	16.0	15 3025 (Part 40):1991
11	Magnesium us Mg	ing/l	19.2	15 3025(Part 46): 1994
12	Reactive Silica as SiO2	mg/l	27.21	45.3025 (Part 35) 1988
13	Nittate	mg/l	13.54	IS 3025 (Part 34):1988
14	Methyl Orange Alkalinity as CaCO3	mg/t	300.0	IS 3025 (Part 23) 1986
15	Chloride as Cl	mg/t	274.91	IS 3025 (Part 32) 1988
10	Total hardness as CaCO3	eng/l	100.0	18 3025 (Part 21): 1983

Note :- BLQ - Below the Limit of Quantification, 1.OQ- Limit of Quantification, mg3- Milligrams per litre.

End of Report



ULR No.

WATER AUDIT REPORT



TEST REPORT

Page: 1 of 1

Report No. : HECSL/WW/013/220923 Report Date = 30/09/2023

Name of the Client	: M/s. TPL Lab
Address of the Client	: Manali
Sample Description	: Waste Water
Sample Mark	: Cooling Tower Blowdown
Sample Drawn By	: Hubert Enviro Care Systems (P) Ltd.,

-22/09/2023

Sampling/received Date : 22/09/2023

Analysis Commenced On : 22/09/2023

: TC578623000015189F

Completed On : 30/09/2023

S.No.	Parameters	Units	Results	Test Method
1	Total suspended Solids	mg/l	2.0	15 3025 (Part 17) 1984
2	pH @ 25℃	1	6.78	15 3025 (Part 11) 2022
3	Total Dissolved Solids	mg/l	3685.0	IS 3025 (Part 16) 1984
4	Oil & Grease	mg/l	BLQ(LOQ 4.0)	15 3025 (Part 39) 1991
	BOD, 3 days @ 27*C as 02	mgʻl	7.0	15:3025 (Part 44)1993
6	COD as O2	mg/l	32.0	1S 3025 (Part 58) 2006
7	Sulphate as SO4	mg/l	270.86	15 3025 (Pari 34) 1986
8	Turbidity	NTU	14.3	IS:3025:(Part-10):1984
9	Electrical Conductivity @ 25%	pSiens	5500.0	15:3025:(Part-14):1983
10	Calcium as Ca	mg/l	64.0	IS 3025 (Part 40):1991
11	Magnesium as Mg	mgT	43.2	15 3025(Part 46): 1994
12	Reactive Silica as SiO2	mg/l	8.94	IS 3025 (Part 35):1988
13.	Nitrate	mgA	13.19	15.3625 (Part 34):1988
14.	Methyl Orange Alkalinity as CaCO3	mg/l	130.0	IS 3025 (Part 23) 1986
15	Chloride as Cl	mg/1	1164.6	15 3025 (Part 32) 1988
16	Total hardness as CaCO3	mg/l	340.0	15.3025 (Part 21): 1983

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/i- Milligrams per litre.

End of Report



WATER AUDIT REPORT



TEST REPORT

Page: 1 of 1

Report No. : HECSL/WW/016/220923

Name of the Client Address of the Client	M/s. TPL Lab	Report No. : HECSL/WW/01/ Report Date : 30/09/2023
Sample Description	: Manali : Waxte Water	
Sample Mark	: Ro Reject	
Sample Drawn By	7 Hubert Enviro Care Systems (P) Ltd.,	
Sampling/received Date	22/09/2023 -22/09/2023	
Analysis Commenced On	: 22/09/2023	Completed On : 30/09/2023
ULR No.	TC578623000015192F	

S.Na.	Parameters	Units	Results	Test Method	
1	Total suspended Solids	mg/l	2.0	25 3027 (Part 17) 1964	
2	pH is 25°C		7.66	15 2023 (Put 11) 2022	
3	Total Dissolved Solids	mg-1	8924.0	25 3025 (Part In) 1998	
4	Oil & Grease	mg/ł	BLQ(LOQ 4.0)	15 5129 (Fatt 39) (99)	
5	BOD, J days @ 27°C as O2	mgʻl	16.0	25:3025 (Part 44)(1993	
6	COD as 02	mg/l	92.0	25 3023 (Part 58) 3900	
7	Sulphate as \$04	mg/l	578.85	85 3025 (Part 24) 1990	
8	Turbidity	NTU	1.0	15:3023 (Part-10) 1984	
9	Electrical Conductivity @ 25°C	µS/cm	13320.0	15:16(25:cPart-14):1963	
10	Calcium as Ca	mgʻl	104.0	15 MI23 (Part 40): 1991	
11	Magnesium as Mg	mg-1	14.4	ES 34125(Part 46): 1994	
12	Reactive Silica as SiO2	mg/l	6.10	IS 3922 (East 1.9):1988	
13	Nitrate	mgʻl	13.0	85 3023 (Part 34): 1968	
14	Methyl Ounge Alkalinity as CaCO3	mg/l	350:0	25.5023 (Part 21) (1998	
15	Chloride as Cl	mg/l	3248.0	85 5928 (Part 32) (1988	
16	Total hardness as CaUO3	mg/l	320.0	85 3425 (Part 21): 1963	

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l- Milligrams per litre.





TEST REPORT

Page: 1 of 1

Report No. : HECSL/WW/017/220923

Name of the Client : M/s. TPL Lab Report Date : 30/09/2023 Address of the Client : Manali Sample Description : Waste Water : STP Inlet Sample Mark : Hubert Enviro Care Systems (P) Ltd., Sample Drawn By Sampling/received Date : 22/09/2023 -22/09/2023 Analysis Commenced On : 22/09/2023 Completed On = 30/09/2023 ULR No. 1TC578623000015193F

S.No.	Parameters	Unit	Result	Test Method
1	Total suspended Solids	toy/	98.	15 3025 (Part 17) 1984
2	pH in 25°C	-	6.3	8S 3025 (Part 11)2022
3	Total Dissolved Solids	eng/	1956	15 3025 (Part 16) 1994
4	Oil & Grease	eng/	4	IS 3025 (Part 39) 1991
5	BOD, 3 days @ 27°C as O2	eng/	60.	IS:3025 (Part 44)1993
6	COD = O2	ang:	216.	15 3025 (Part 58) 2006
7	Chloride as Cl-	ange!	564.8	15 3025 (Part 32) 1988
8	Sulphate as SO4	eng/	9.1	15 3025 (Part 24) 1986
9	Electrical Conductivity @ 25°C	µS/c	2920.	IS:3025:(Part-14):1983

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l- Milligrams per litre.

End of Report





TEST REPORT

Page : 1 of 1

Report No. : HECSL/WW/018/220923 Report Date - 30/09/2023

Name of the Client Address of the Client Sample Description

: M/s. TPL Lab : Manali :Waste Water

Sample Mark	:STP Outlet
Sample Drawn By	Hubert Envi
Sampling/received Date	:22/09/2023
Analysis Commenced On	:22/09/2023
ULR No.	: TC57862300

Hubert Enviro Care Systems (P) Ltd., :22/09/2023 -22/09/2023 :22/09/2023

: TC578623000015194F

Completed On :38/09/2023

S.No.	Parameters	Units	Results	Test Method	TNPCB Limits*
1	Total suspended Solida	mg'l	5.0	IS-3025 (Part 17) 1984	20
2	pH @ 25%	+	7.07	3% 1923 (Pari 11/2002	5.5 - 9,0
3	Total Dissolved Solids	ing/l	1958.0	IS 2025 (Part In) 1984	-
4	Oil & Grease	mg1	BLQ(LOQ 4.0)	IS 2025 (Part 20) 1001	10
5	BOD, 3 days @ 27°C as 02	mgʻl	BLQ(LOQ 1.0)	15-3023 (Part 44)/991	10
6	COD as 02	mgʻl	BLQ(LOQ 4.0)	15.3425 (Part 55) 2009	50
7	Chloride as Cl-	mg1	484.84	IS 3025 (Part 32) (988	1
8	Sulphate as SO4	mgʻl	208.37	IS-3025 (Part 24) 1988	1
9	Electrical Conductivity (i: 25°C	µS/cm	2880.0	18-3025 (Part-14) 3993	

Note :- RLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg4- Milligrams per litre.

*Mega and metropolitan city As Per Standards for STP Outlet.

Remarks: STP Outlet as above parameters meets TNPCB Standards.

End of Report

WATER AUDIT REPORT

F



			TEST REPORT		Page: 1 of 1
Addres	of the Client : M/s. TPL ss of the Client : Manali le Description : Waste Wa	0.050		Report No. HECSI Report Date: 30/09/2	
Samp Samp	ling/receivedDate : 22/09/202 rsis Commenced On : 22/09/202	viro Care Syst 3 -22/09/202		Completed On: 30/09	/2023
+ S.No	Parameters	Units	Results	Test Method	TNPCB Limits
1	Total suspended Solids	mg/l	68.0	IS 3025 (Part 17) 1984	100
2	pH @ 25°C	5	6.56	IS 3025 (Part 11) 2022	5.5 - 9.0
3	Total Dissolved Solids	mg/l	1034.0	IS 3025 (Part 16) 1984	2100
4	Oil & Grease	mg/l	2.0	IS 3025 (Part 39) 1991	10
5	BOD, 3 days @ 27°C as O2	mg/l	10.0	IS:3025 (Part 44)1993	30
6	COD as O2	mg/l	40.0	IS 3025 (Part 58) 2006	250
7	Sulphate as SO4	mg/l	79.61	IS 3025 (Part 24) 1986	1000
8	Turbidity	NTU	17.5	IS:3025:(Part-10):1984	NA
9	Electrical Conductivity @ 25°C	µS/em	1521.0	IS:3025:(Part-14):1983	NA
10	Calcium as Ca	mg/l	24.0	IS 3025 (Part 40):1991	NA
11	Magnesium as Mg	mg/l	24.0	IS 3025(Part 46):1994	NA
12	Reactive Silica as SiO2	mg/l	6.93	IS 3025 (Part 35): 1988	NA
13	Nitrate	mg/l	6.59	IS 3025 (Part 34):1988	NA
14	Methyl Orange Alkalinity as CaCO3	mg/l	130.0	IS 3025 (Part 23) 1986	NA
15	Chloride as Cl	mg/l	244.92	IS 3025 (Part 32) 1988	NA
16	Total hardness as CaCO3	mg/l	160.0	IS 3025 (Part 21): 1983	NA

WATER AUDIT REPORT



TEST REPORT

Page: 1 of 1

Report No. : HECSL/WW/011/220923 Report Date = 30/09/2023

Completed On :30/09/2023

Name of the Client Address of the Client Sample Description

: M/s. TPL Lab : Manali :Waste Water

:WTP Outlet

Sample Mark Sample Drawn By Sampling/received Date Analysis Commenced On : 22/09/2023 ULR No.

: 22/09/2023 -22/09/2023

: Hubert Enviro Care Systems (P) Ltd.,

:TC578623000015187F

S.No	Parameters	Units	Results	Test Method	TNPCB Limits
1	Total suspended Solids	mg/I	28.	15 3025 (Part 17) 1984	100
2	pH@25°C		8.6	15 3025 (Part 11) 2022	5.5 - 9.0
3	Total Dissolved Solids	mg/l	765.	15 3025 (Part 16) 1984	2100
4	Oil & Grease	ung/l	BLQ(LOQ 4.0)	IS 3025 (Part 39) 1991	10
5	BOD, 3 days (ij) 275C as O2	mg/t	1.	IS:3025 (Part 44)1993	30
6	COD as 02	mg/l	12	IS 3025 (Part 58) 2006	250
7	Sulphate as SO4	mg/f	62:0	IS 3025 (Part 24) 1986	1000
8	Turbidity	NTU	0.	15:3025 (Part-10):1984	NA
9	Electrical Conductivity @	µS/cm	1125.0	15:3025 (Part-14) 1983	NA
10	Calcium as Ca	rog/1	40,	15 3025 (Part 40):1991	NA
11	Magnesium as Mg	mg/1	19.	IS 3025(Part 46):1994	NA
12	Reactive Silica as SiO2	mg/l	2.4	IS 3025 (Part 35):1988	NA.
13	Nitrate	rug/t	10.2	15-3025 (Part 34):1988	NA
14	Methyl Orange Alkalinity as CaCO3	mg/l	160. 0	IS 3025 (Past 23) 1986	NA
15	Chloride as Cl	mg/l	159.95	IS 3025 (Part 32) 1988	NA
16	Total handness as CaCO3	trap://	180.	IS 3025 (Part 21): 1983	NA

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l- Milligrams per litre.

Remarks: WTP Outlet as above parameters meets TNPCB Standards

End of Report

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5.2. FIELD OBSERVATIONS AND WATER QUALITY ANALYSIS Table 17: Water Quality Analysis

SAMPLING LOCATIONS	рН	TDS (IN mg/L)	REMARKS
TTRO	7.07	620	 Clear liquid is observed in the TTRO water reservoir. Presence of Total Suspended Solids (TSS) is 30.0 ppm which is within the permissible limit (<100ppm) The BOD and COD Presence in the TTRO water is within the acceptable limit TTRO storage tank is to be cleaned annually/during shutdown to avoid sludge accumulation.
FIRE WATER	8.72	668.0	 Presence of Total Suspended Solids (TSS) is 20.0 ppm which is within the permissible limit (< 100ppm) The BOD and COD Presence in the FIRE Water is within the acceptable limit Fire water storage tank is to be cleaned annually/during shutdown to avoid sludge accumulation.
WTP OUTLET	8.68	765.0	 Presence of Total Suspended Solids (TSS) is 28.0 ppm which is within the permissible limit (< 100ppm) The BOD 3.0 ppm and COD 12.0 ppm Presence in the WTP OUTLET Water is within the acceptable limit This water is to be treated in ETP and followed by Reverse Osmosis. Before treatment in RO plant, removal of TSS through sand filter and carbon filter followed with Ultra Filtration and regular Hypo dosing continue to ensure.



WATER AUDIT REPORT



BOILER BLOW DOWN WATER	10.59	3088.0	 Presence of Total Suspended Solids (TSS) is 1.0 ppm which is within the permissible limit (< 100ppm) The BOD 8.0 ppm and COD 32.0 ppm Presence in BOILER BLOW DOWN WATER Water is within the acceptable limit This water is to be treated in ETP and followed by Reverse Osmosis for TDS reduction and before treatment in RO plant, removal of TSS through sand filter and carbon filter followed with Ultra Filtration and regular Hypo dosing continue to ensure.
COOLING TOWER BLOW DOWN	6.78	3685.0	 Presence of Total Suspended Solids (TSS) is 2.0 ppm which is within the permissible limit (< 100ppm) The BOD 7.0 ppm and COD 32.0 ppm Presence in COOLING TOWER BLOW DOWN WATER is within the acceptable limit This water is to be treated in ETP & followed by Reverse Osmosis system for removal of TDS of 3685 ppm. Before treatment in RO plant, removal of TSS through sand filter and carbon filter followed with Ultra Filtration and regular Hypo dosing continue to ensure
ETP OUTLET	6.56	1034.0	 Presence of Total Suspended Solids (TSS) is 68.0 ppm which is though within the permissible limit (< 100ppm) it can be further treated thro' sand filter and Carbon Filter for removal of TSS followedby Ultra Filtration systems for removal TSS The BOD 10.0 ppm and COD 40.0 ppm and O&G 2.0 presence ETP treated water is within the acceptable limit, further treatment is required to recycle the treated water by using of sand filter andcarbon filter with Ultra Filtration as pre-treatment for processing in RO system to avoid fouling on the membranes. Please ensure the sand and carbon filter medias are replaced periodically. This ETP outlet water has a TDS of 1034.0 ppm is to be treated with Suitable RO systems withoptimum recovery for reuse.

T

WATER AUDIT REPORT



RO PERMEATE	6.76	356.0	 The presence of Total Dissolved Solids (TDS) is 356.0 ppm which is better than TTRO water TDS and this water can be used for Boiler Feed and Cooling Tower topping up with residual hardness of 60 ppm. Suitable treatment can be incorporated for removal of hardness in RO permeate, i.e, softeneror any suitable system as per your process requirements. This water can be fed to DM plant for getting enhanced output instead of using TTRO water and reduce the chemical effluent during DM Plant regenerations. / Permeate water being utilized for cooling water make up.
RO REJECT	7.66	8924.0	 Possibility of reuse of RO reject water can be assessed i.e., by further treatment in RO / by considering economic feasibility for treating final RO reject via MEE and ATFD - ZLD. The inlet quality of water has a Total Suspended Solids (TSS) of 98.0 ppm shall be treated through the filtering systems available in the STP plant. The BOD 60.0 ppm and COD 216.0 ppm is reported in STP inlet water shall be treated in available Sewage Treatment Plant Comprising Aeration and Hypo Dosing along with clarifier systems
STP OUTLET	7.07	1958.0	 This STP treated water having TSS <5.0ppm and TDS < 1958.0 ppm can be used for gardening / Floor washing and having parameters within specified limits. BOD and COD in the treated water is observed to be within the limits and shall be used for Gardening and floor washing purposes





5.3. Observations from the Site Visit

HECS team visited site on 13th September 2023 and carried out audit and had detailed discussions. Water samples collected on 21.09.2023 and tested at M/s. Hubert Enviro Care Systems laboratory.

6. Remedial Action for Sewage management / Effluent in Tamil Nadu Petroproducts Ltd

S. No	Areas / Point of use	Remarks	Actions / Recommendations
1	Water Usage	For Canteen vessel washing	 Proposed to provide separate flow meter to monitor and regulate the water usage at canteen area. Provide jet spray type arrangement can reduce the water usage especially in utensil cleaning.
2	Cooling Tower evaporation loss/make up water	More Water loss in cooling tower More evaporation of water in CT found. Poor makeup water leading to higher blow down.	 To control over the evaporation loss incoming water, ETP RO permeate canbe taken as topping up with optimum TDS which will increase the COC inturn it will reduce the frequent bleed offs. Ensure make up water with less TDS with periodic analysis
3	Boiler more Steam consumption/condensate recovery	Steam leakages near furnace area andsteam trap points	 Reduce Steam consumption by Steam trap leakages shall be attended. Steam consumption can be reduced by ensuring the proper insulation in the piping network.

Table 18: Proposed Remedial Actions



WATER AUDIT REPORT

4	DM plant regeneration	Higher DM water consumption to meet Steam demand. Higher frequency of regeneration whenever supplies TTRO having more conductivity.	 Reduced DM water consumption in line with reduced steam demand Ensure Possibility /economic feasibility for ETP RO permeate as feed to DM Plant. or go for additional RO system for treating TTRO water to feed ROpermeate to DM Plant, Boiler, Cooling Tower.
5	Reuse of water	RO recovery/ performance	 RO plant for treating treated effluent &percentage of recovery needs to bereviewed Continuation of reuse of harvested rainwater Treated sewage continue use for green belt
6	Domestic water	Reduction of sewage water	• Auto cut press Water tap provision for hand wash and toilet area could control the excess water usage.
7	Effluent water	Reduction of effluent	 Optimum utilization of process water with minimum effluent generation. By avoiding mixing of storm water, which may contain chemical spillover, which can be treated separately in the pre-treatment

WATER AUDIT REPORT

8	Oil contamination	Oil mix-up	• Recommended to divert the oily content to a separate collection sump throughpipeline arrangement to reduce oil mix up in effluent and this water can be treated separately with suitable de-watering system.
9	Operation of Effluent Treatment Plant	Treatment efficiency	 Ensure Continuous operation of ETP. Proper chemical dosing should be done continuously. The efficiency of ACF and PSF operations at RO needs to be monitored andback washing of filters are to be done periodically (at least once in a day)
10	Main Sewage Collection Tank	Anaerobic condition of sewage	 The collected sewage should not be stored for a long period of time and shouldbe treated and consumed for gardening purposes. It should be transported to the sewage treatment plant continuously. Storing the sewage is one of the reasons for black colour and high total suspended solids concentration due to sludge accumulation.



7.Conclusion

M/s Hubert Enviro Care Systems Pvt Ltd, Chennai was entrusted by M/s. Tamilnadu Petroproducts Ltd, Manali to conduct water audit study. The study is performed to identify the water consumption and sources of wastewater generation in the industrial premises. Also the possible reason for high Chemical Oxygen Demand, Biochemical Oxygen Demand and Total Suspended Solids in the sewage water has been identified. Based on the identified sources proposed remedial actions have been given for the better management of Sewage Treatment Plant and Effluent Treatment Plant.



District Environmental Laboratory, Manali

From

Dr. P.Vijayalakshmi, M.Sc., Ph.D., Deputy Chief Scientific Officer,(Adl Charge) District Environmental Laboratory, Manali Tamil Nadu Pollution Control Board, 950/1, Poonamallee High Road, Arumbakkam, Chennai-106

То

M/s. TPL (LAB), Manali Express Highway, Manali, Chennai – 600 068.

Lr.No.TNPC Bd/DEL-MNL/Air Survey/F. No.74/2021-22, Dt. 22.11.2023

Sir,

Sub: Furnishing of Report of Analysis of Ambient Air Quality / Stack Monitoring / Ambient Noise Level Survey – Reg.

Ref: 1. This office Lr.No. TNPCB/DEL/MNL/AAQS/SM/NLS/F.No.74/2023-24 dt. 07.08.2023 2. Your Lr.No.Nil dt:29.08.2023

3. Cash Receipt No.147288 dt.15.02.2022 Rs.1,60,465/-

I am herewith sending the Report of Analysis of Ambient Air Quality / Stack Monitoring / Ambient Noise Level Survey conducted in the vicinity of your industry on **M/s. TPL (LAB), Manali** Express Highway, Chennai – 68 on **16.10.2023** with invoice for Rs.1,60,250/- (Rupees One Lakh Sixty thousand Two Hundred and Fifty only) towards the above survey / analytical charges, and the same has been adjusted vide reference (3) cited.

Kindly acknowledge the receipt of the above without fail.

Deputy Chief Scientific Officer,(A/C) District Environmental Laboratory Tamil Nadu Pollution Control Board Manali

Encl.: As above.

Copy submitted to:

The Joint Chief Environmental Engineer (M), TNPC Bd, Chennai for favour of kind information please.
 The District Environmental Engineer, TNPC Bd, Ambattur for favour of kind information please.
 Copy to file.



District Environmental Laboratory, Manali

AMBIENT AIR QUALITY SURVEY – Report of Analysis

1. Name of the Industry	:	M/s. TPL (LAB),
2. Address of the Industry	:	Manali Express Highway, Chennai - 68.
3. Date of Survey	:	16.10.2023
4. Duration of Survey	:	<u>8 Hours</u> / 24 hours
5 Cotogony		Dod / Onongo / Cuson Lange / Madium / Smal

5. Category 6. Land use classification :

Red / Orange / Green – Large / Medium / Small

Industrial / Commercial / Residential / Sensitive

Date: 22.11.2023

		Meteorolo	ogical Conditions		
Ambient	Min	Max	Relative	Min	Max
Temperature (^{0}C)	26	32	Humidity (%)	54	72
Weather Condition	Partially Cloudy		Rain Fall (mm)	Nil	
Predominant Wind ENE – WSW Direction		Mean Wind Speed (km/hr)	10		

·····		STORE I KH	Laund	Survey Ite	Juits			
Sl.	Location	tion	nce *	lt GL	Pollutants Concentration (microgram / m ³)			
No.		Direction *	Distance (m)*	Height Form G (m)	PM 2.5	PM 10	SO ₂	NO_2
1	On top of platform adjacent to Raw water pond	NE	100	4.0	20	32	7	10
2	On top of platform near hot oil heater	Е	50	4.5	-	40	9	14
3	On top of CP station near flare stack	SE	100	4.5		57	11	16
4	On top of CP station – I	SW	100	4.0	32	83	14	24
5	On Top of Drivers rest Room	W	75	4.0		73	11	19
6	On top of the weigh bridge office room	NW	150	4.0		76	12	21

Ambient Air Quality Survey Results

Note: * With respect to major emission sources. The analytical results are restricted to the sampling period of 8 hrs/24hrs

> Deputy Chief Scientific Officer, (A/C) **District Environmental Laboratory Tamil Nadu Pollution Control Board**

> > Manali

Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
SO2	Modified West – Gaeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO2	Jacobs Hochheiser / IS 5182 : (Part 6) - 2006 RA:2012



District Environmental Laboratory, Manali

AMBIENT AIR QUALITY SURVEY

Schematic Diagram Showing Location of Sampling

Report No.42 /AAQ/SM/2023-24

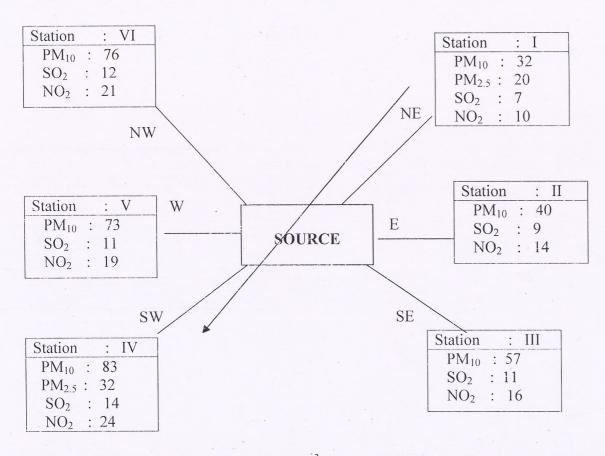
Name and Address of the Industry

: M/s. TPL (LAB)

Manali Express Highway, Chennai – 68.

Date of Survey

: 16.10.2023



Note: All the values are expressed in $\mu g/m^3$ and restricted to sampling period of 8 hrs/24hrs

Meteorologica	l Conditions:	
Predominant Wind Direction	ENE – WSW	
Wind Speed (Km/hr)	10	
Weather Condition	Partially Cloudy	
Rainfall	Nil	



District Environmental Laboratory, Manali

STACK MONITORING SURVEY – Report of Analysis

Report No. 42/ SM/2023-24	1	Date: 22.11.2023
1. Name of the Industry	:	M/s. TPL (LAB),
2. Address of the Industry	:	Manali Express Highway, Chennai – 68
3. Date of Survey	:	16.10.2023
4. Type of Industry	:	Coal/Chemical/Sugar/Paper & Pulp/ Power plant / Textile Processing/ Petroproducts

Stack Monitoring Survey Results

S1.	Stack attached to	Fuel used	Stack .Temp ⁰ K	Velocity in (m/ sec)	Discharge rate In Nm ³ /hr	Pollutants (mg / Nm ³)		
No.						PM	SO ₂	NO _x
1	Boiler – 8T	LNG	442	10.4	40000	2	36	44
2	PACOL Heater	LNG	386	31.7	57173	4	17	35
3	Hydrobon Heater	LNG	435	17.4	16360	6	19	56
4	CPP-II	FO	433	22.3	63712	11	386	143
5	Hot Oil Heater	LNG	419	15.1	356726	2	19.2	36.2

Test Performed	Test Method				
PM10	IS 5182 : (Part 23) – 2006				
SO2	Modified West Gaeke / IS 5182 : (Part 2) - 2001 RA: 2012				
NOx	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012				

Deputy Chief Scientific Officer(A/C) District Environmental Laboratory Tamil Nadu Pollution Control Board Manali

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District Environmental Laboratory, Manali

Stack Details

Report No.42/AAQ/SM/2023-24

1. Name and Address of the Industry :

M/s. TPL (LAB) Manali Express Highway, Chennai - 68

SI.	te of Survey :	1	2	3	
No. 1.	Stack attached to	Boiler	Heater	Heater	
2.	Details of process stack	Boiler- 8T	PACOL	Hydrobon	
3.	Height from G Level in (m)	30	42	30	
4.	Diameter in (m)	1.4	1.1	0.69	
5.	Port hole height from Ground Level or bends or ducts in (m)	16.7	40.0	20:0	
6.	Fuel Used (with % Sulphur content)	LNG	LNG	LNG	
7.	Fuel Consumption rate per hr (mention units)	10 kg / hr	880 kg / hr	120 kg / hr	
8.	Type of Stack and capacity	Round	Round	Round	
9.	Production on 16.10.2023	Linear Alkyl Benzene 295 MT, Heavy Alkylate – 13 N N-Paraffin – 214MT			
10.	APC Measures provided	Stack. Automatic Air / Fuel ratio	Stack. Automatic Air / Fuel ratio	Stack. Automatic Air / Fuel ratio	
11.	APC functional status	Functional	Functional	Functional	
12.	Moisture content in %				
13.	Ambient temp in °K	304	303	304	
14.	Temp of flue gas in ^o K	442	386	435	
15.	Velocity of flue gas in m/sec	10.4	21.3	17.4	
16.	Volume of flue gas sampled in m ³	1.0074	0.9827	0.9933	
17.	Gaseous Discharge rate per day in Nm ³ /hr	40000	57173	16360	
18.	Combustion efficiency %				

Deputy Chief Scientific Officer(A/C) **District Environmental Laboratory Tamil Nadu Pollution Control Board** Manali



District Environmental Laboratory, Manali

Stack Details

Report No.42/AAQ/SM/2023-24

1. Name and Address of the Industry :

M/s. TPL (LAB)

Manali Express Highway, Chennai – 68 16.10.2023

2. Da	te of Survey :	16.10.2023			
SI. No.	Particulars	4	5		
1.	Stack attached to	СРР	Heater		
2.	Details of process stack	CPP-II	Hot Oil Heater		
3.	Height from G Level in (m)	31.5	76		
4.	Diameter in (m)	1.2	3.4		
5.	Port hole height from Ground Level or bends or ducts in (m)	23	68		
6.	Fuel Used (with % Sulphur content)	FO	LNG		
7.	Fuel Consumption rate per hr (mention units)	1500 kg / hr	3500 kg / hr		
8.	Type of Stack and capacity	Round	Round		
9.	Production on 16.10.2023	Linear Alkyl Benzene 295 MT, Heavy Alkylate – 13 MT, N-Paraffin – 214MT			
10.	APC Measures provided	Stack. Automatic Air / Fuel ratio	Stack. Automatic Air / Fuel ratio		
11.	APC functional status	Functional	Functional		
13.	Moisture content in %				
14.	Ambient temp in ^o K	304	303		
15.	Temp of flue gas in ^o K	433	419		
16.	Velocity of flue gas in m/sec	22.3	15.1		
17.	Volume of flue gas sampled in m ³	1.0132	0.987		
18.	Gaseous Discharge rate per day in Nm ³ /hr	63712	356726		
19.	Combustion efficientcy %		/		



District Environmental Laboratory, Manali

STACK MONITORING SURVEY – Additional details

Report No. 42/ SM/2023-24		Date: 22.11.2023
1. Name of the Industry	:	M/s. TPL (LAB)
2. Address of the Industry	:	Manali Express Highway, Chennai – 68
3. Date of Survey	:	16.10.2023
4. Type of Industry	:	Coal/Chemical/Sugar/Paper & Pulp/ Power plant / Textile Processing/ Petroproducts

Stack Monitoring Additional details

Sl. No.	Details of stack mentioned in the Air Consent order	Details of stack available and in working condition	Details of stack for which stack Emission sampling have been done	Justification for the left out of stack Emission Sampling
1.	Boiler – 8T	Working	Sampling Done	
2.	PACOL Heater	Working	Sampling Done	
3.	Hydrobon Heater	Working	Sampling Done	
4.	CPP-II	Working	Sampling Done	
5.	Hot Oil Heater	Working	Sampling Done	

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District Environmental Laboratory, Manali

AMBIENT/SOURCE NOISE LEVEL SURVEY - Report of Analysis

Report No. 42/ NLS/2023-24

Date: 22.11.2023

1.	Name of the	he Industry	M/s. T	M/s. TPL (LAB)				
2.	Address of	f the Industry	Manali Express Highway, Chennai - 68					
3.	Date of Su	irvey	16.10.2	16.10.2023				
Cate	egory	RL		Land use Classification	Industrial			
Type of Survey Ambient/So		ource	Time of Survey	Day				
Meteorological conditions			Calm/Windy/Rainy	Windy				

			Logg	ing	Parameters	
Instrument Used		ESVA Model SC310 S		Serial No		T243103
Logging Interv	al	10 Minutes each p	s each point I		leasuring Range	50-110 dB(A)
Weighting	" A"	Peak	"C	199	Time Weighting	FAST
		Weighting				
Sound Incidence		RANDOM	1		Time in hrs	14.00 - 15.00

01		ti e			Sound Level dB (A)		
SI No	Location	Duration (min)	Distance (M)	Direction	L _{eq}	Min	Max
1	Near Raw Water Pond	10	100	NE	58.4	55.1	65.5
2	Near Flare Area	10	100	SE	53.7	50.6	68.1
3	Near CP Station -I	10	100	SW	52.1	50.7	63.7
4	Near Drivers Leisure Room	10	75	W	54.0	51.3	70.1
. 5	Near Temple	10	100	NW	57.8	55.0	65.3

Note: Leq value is the average energy for the measured period.

5



District Environmental Laboratory, Manali

INFERENCE REPORT ON A.A.Q.S./ S.M.

1. Name of Industry	:	M/s. TPL (LAB)	
2. Pollution Category	:	Red Large	
3. Date of A.A.Q. Survey	:	16.10.2023	
4. Predominant Wind Direction	:	ENE - WSW	
5. Weather condition	:	Partially Cloudy	

STATUS OF POLLUTANTS LEVEL

I. <u>AMBIENT AIR QUALITY :-</u>

1. Total No. of A.A.Q. stations monitored : 6

2. No. of A.A.Q. stations in which Pollutants Level exceeded the Boards standards : Nil

Maximum and Minimum values of Pollutants Level observed:

S1.		Values in microgram/m ³		BOARD's STANDARD
No.	POLLUTANT	Maximum	Minimum	(As per consent order)
1.	PM ₁₀	83	32	100
	PM.2.5	32	20	60
2.	GASEOUS			
	POLLUTANTS:-			
	(i) SO2	14	7	80
L	(ii) NO2	24	10	80

II. STACK MONITORING:-

1. Total No. of Stacks Monitored

: 5

: Nil

2. No. of Stacks in which Pollutants level Exceeded the Boards standards



District Environmental Laboratory, Manali

BILL

Report No.42/AAQ/SM/2023-24

Bill No.	42/2023-24	
Date	22.11.2023	

То

M/s. TPL (LAB), Manali Express Highway, Chennai - 600 068

Ref: 1. B.PMs.No.6 Dt.31.03.2009.

2. This office Lr.No. TNPCB/DEL/MNL/AAQS/SM/NLS/F.No.74/2023-24 dt. 07.08.2023

3. Your Lr.No.Nil dt:29.08.2023

4. Cash Receipt No.252 dt.01.09.2023 Rs.1,60,250/-

Sl. No.	Description	Rate (Rs.)	No. of Stations/ Stacks	Amount (Rs.)
. 1.	SAMPLING CHARGES:			
	(i) Ambient Air Quality monitoring PM ₁₀	3500	6	21,000
	(ii) Source Emission Monitoring (PM, SO₂, NO_x etc.,)	13100	5	65,500
	(iii) Ambient Air Quality monitoring PM _{2.5}	3500	2	7,000
2.	 ANALYTICAL CHARGES: (i) Ambient Air Samples PM₁₀, SO₂, NO₂ (each Rs.1050/-) 	3150	6	18,900
	(ii) Ambient Air Samples PM _{2.5}	1800	2	3,600
	(iii) Source Emission Samples PM, SO ₂ , NO _x (each Rs.1050/-)	3150	5	15,750
3.	AMBIENT NOISE MONITORING CHARGES:			
	(i) For first 5 stations	1400	5	7,000
	Transportation Ch	arges		500
	Total		_	1,39,250
Received Vide Canara Bank DD No. 476386 dated 28.08.2023 Our CR.No.252 dated :01.09.2023				
LESS : Excess amount of TVOC analytical charges will be deducted in the demand of the next survey.				
	Balance to be adju	isted		21,000

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



Laboratory Services Division

(Chemical & Biological Testing) **FSSAI** Notified Laboratory ISO 9001, 14001 & 45001 Certified.

	TEST REPORT		Page: 1 of 2
		ULR	: TC1231024000021113F
Name of the Client	: M/s. TamilNadu Petro Products Ltd.,	Report No. Sample ID No	: HECS/AP/117/050424 : 050424319
Address of the Client	: LAB Plant,	Sampling Date	: 05/04/2024
	Manali Express High Way, Manali, Chennai - 600 (068.	
Group	: Atmospheric Pollution	Received Date	: 05/04/2024
Sample Name	: Ambient Air	Commenced Dat	e: 05/04/2024
Sample Mark	: NA	Completed On	: 11/05/2024
Sample Reference	: NA	Report Date	: 11/05/2024
Sample Drawn By	: M/s.Hubert Enviro care Systems (P) Ltd.	Sample quantity	·NA
Sample Location	: Near Raw water pump house		
Environmental Condition Sampling Method & Plan	: Temperature (°C) : 32.0 Humidity (%) : 56.0 : IS 5182 Part 5 & Part 14		
12.10/2			

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Stan	dards : 2009
Discip	line : Chemical					
1	Lead	μg/m³	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)
2	Arsenic	ng/m³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
3	Nickel	ng/m³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
4	Benzene-AAQ	μg/m³	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
5	Benzo (a) pyrene-AAQ	ng/m³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	I (Annual)
6	Ammonia as NH3	µg/m³	8.30	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
7	Carbon Monoxide (CO)	mg/ m³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
8	Nitrogen dioxides as NO2	µg/m³	20.66	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
9	Ozone as O3	µg/m³	13.53	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
	Particulate matter (Size less than 10 μ m)	μg/m³	54.41	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
	Particulate matter (Size less than 2.5 μ m)	μg/m³	18.36	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
12	Sulphur dioxide as SO2	µg/m³	10.22	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
13	Total Suspended Particular Matter	μg/m³	72.77	IS 5182 (Part 4) 1999		oo (runiuar)

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m3- Micrograms per cubic meter,

mg/m3-Milligrams per cubic meter, ng/m3-Nanograms per cubic meter, NA -- Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



D.Anusuya

Deputy Quality Manager Authorized Signatory

1. The report in full or part shall not be used for any promotional or publicity purpose without written consent by HECS organization 2. Samples are not drawn by HECS unless or otherwise mentioned 3. Unless specifically requested by customer the test items will not be retained more than 15 days from the date of issue of test report. 4. Under no circumstances lab accepts any liability or loss / damage caused by use or misuse of test report after invoicing or issue of test report. 5. The test results relate only to the test items. HECS-G/O/FMT/49 HECS-G/Q/FMT/49

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Laboratory Services Division

(Chemical & Biological Testing) FSSAI Notified Laboratory ISO 9001, 14001 & 45001 Certified.

-					BODT.		
				TEST RE	PURI	Pag	e:1 of 1
R					ULR	: TC1231024	
	Long States				Report No	: HECS/AP/	7676/050424
Nan	ne of the Client	: M/s. Tamil	Nadu Pe	tro Products Ltd.	" Sample ID	No : 050424257	
					Sampling I	Date : 05/04/2024	
Add	ress of the Client	: LAB Plant Manali Ex	,	h Way, Manali, (Chennai - 600 068.		
Group : Atmosphe				Received I	Date : 05/04/2024		
Samp	le Name	: Ambient A	ir		Commence	ed Date: 05/04/2024	
	le Mark	: NA			Completed		
	le Reference	:NA			Report Dat		
Samp	le Drawn By	: M/s.Huber	t Enviro	care Systems (P)		antity: NA	
Sam	ple Location	: Near Secu					
Envi	conmental Condition	: Temperati	ure (°C) :	32.0 Humi	dity (%) : 56.0		
Samp	ling Method & Plan	: IS 5182 Pa					
S.No	. Test Para	neters	Units	Results	Test Method	NAAQ Stan	dards: 2009
Disci	pline : Chemical		1		And the second s		
	Α						
1	Lead		μg/m³	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Iss No.:01 Issue Date:01.03.20		0.5 (Annual
1			µg/m³ ng/m³		No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/ 041 Iss	21 ue 6 (Annual)	0.5 (Annual 6 (Annual)
	Lead			0.002)	No.:01 Issue Date:01.03.20	21 ue 6 (Annual) 21 ue 20 (Annual)	
2	Lead Arsenic		ng/m³	0.002) BLQ (LOQ: 2.0)	No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/041 Iss No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/041 Iss	21 ue 6 (Annual) 21 ue 20 (Annual)	6 (Annual)
2 3 .	Lead Arsenic Nickel	.Q	ng/m³	0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0)	No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/041 Iss No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/041 Iss No.:01 Issue Date:01.03.20	21 ue 6 (Annual) 21 ue 20 (Annual) 21	6 (Annual) 20 (Annual) 5 (Annual)
2 3 . 1 5	Lead Arsenic Nickel Benzene-AAQ	.Q	ng/m ³ ng/m µg/m ³	0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1)	No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/ 041 Iss No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/ 041 Iss No.:01 Issue Date:01.03.20 IS 5182 Part 11: 2006	21 21 20 (Annual) 21 20 (Annual) 21 5 (Annual)	6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual)
2	Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA		ng/m ³ ng/m µg/m ³ ng/m ³	0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1)	No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/041 Iss No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/041 Iss No.:01 Issue Date:01.03.20 IS 5182 Part 11: 2006 IS : 5182 Part 12: 2004	21 21 20 (Annual) 21 20 (Annual) 21 5 (Annual) 1 (Annual) 400 (24 hours)	6 (Annual) 20 (Annual) 5 (Annual)
2 3 · · 1 5 5 7	Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3	0)	ng/m ³ ng/m µg/m ³ ng/m ³ µg/m ³	0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 8.93	No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/ 041 Iss No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/ 041 Iss No.:01 Issue Date:01.03.20 IS 5182 Part 11: 2006 IS : 5182 Part 12: 2004 IS 5182 (Part 25) 2018 IS 5182 (Part 10) Clause	21 21 20 (Annual) 21 20 (Annual) 21 5 (Annual) 1 (Annual) 400 (24 hours)	6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 100 (Annual) 2 (8 hours)
2 3 4 5 5 7 3	Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3 Carbon Monoxide (C	0)	ng/m ³ ng/m µg/m ³ ng/m ³ µg/m ³ mg/ m ³	0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 8.93 BLQ(LOQ 0.05)	No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/041 Iss No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/041 Iss No.:01 Issue Date:01.03.20 IS 5182 Part 11: 2006 IS : 5182 Part 11: 2004 IS 5182 (Part 25) 2018 IS 5182 (Part 10) Clause - 1999	21 ue 6 (Annual) 21 20 (Annual) 21 5 (Annual) 1 (Annual) 400 (24 hours) 4 4 (1 hours)	6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 100 (Annual) 2 (8 hours) 40 (Annual)
2 3 · · · · · · · · · · · · · · · · · · ·	Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3 Carbon Monoxide (C Nitrogen dioxides as Ozone as O3 Particulate matter (Si	NO2	ng/m ³ ng/m µg/m ³ ng/m ³ µg/m ³ µg/m ³	0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 8.93 BLQ(LOQ 0.05) 25.67	No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/ 041 Iss No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/ 041 Iss No.:01 Issue Date:01.03.20 IS 5182 Part 11: 2006 IS 5182 Part 12: 2004 IS 5182 (Part 25) 2018 IS 5182 (Part 25) 2018 IS 5182 (Part 10) Clause 1999	21 ue 6 (Annual) 21 20 (Annual) 21 5 (Annual) 1 (Annual) 400 (24 hours) 4 4 (1 hours) 80 (24 hours) 400 (24 hours)	6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 100 (Annual) 2 (8 hours) 40 (Annual) 100 (8 hours)
2 3 5 5 7 8 9	Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3 Carbon Monoxide (C Nitrogen dioxides as Ozone as O3 Particulate matter (Si µm) Particulate matter (Si	O) NO2 ze less than 10	ng/m ³ ng/m μg/m ³ μg/m ³ μg/m ³ μg/m ³ μg/m ³	0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 8.93 BLQ(LOQ 0.05) 25.67 12.94	No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/041 Iss No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/041 Iss No.:01 Issue Date:01.03.20 IS 5182 Part 11: 2006 IS 5182 Part 12: 2004 IS 5182 (Part 25) 2018 IS 5182 (Part 25) 2018 IS 5182 (Part 10) Clause 1999 IS 5182 (Part 6) 2006 IS 5182 (Part 9) 1974	21 ue 6 (Annual) 21 20 (Annual) 21 5 (Annual) 1 (Annual) 400 (24 hours) 4 4 (1 hours) 80 (24 hours) 180 (1 hours)	6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 100 (Annual) 2 (8 hours) 40 (Annual) 100 (8 hours) 60 (Annual)
2 3 · 4 5 6	Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3 Carbon Monoxide (C Nitrogen dioxides as Ozone as O3 Particulate matter (Si µm)	CO) NO2 ze less than 10 ze less than 2.5	ng/m ³ ng/m μg/m ³ μg/m ³ μg/m ³ μg/m ³ μg/m ³ μg/m ³	0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 8.93 BLQ(LOQ 0.05) 25.67 12.94 50.26	No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/ 041 Iss No.:01 Issue Date:01.03.20 HECS-G/INS/SOP/ 041 Iss No.:01 Issue Date:01.03.20 IS 5182 Part 11: 2006 IS 5182 Part 11: 2006 IS 5182 (Part 25) 2018 IS 5182 (Part 25) 2018 IS 5182 (Part 10) Clause 1999 IS 5182 (Part 6) 2006 IS 5182 (Part 9) 1974 IS 5182 (Part 23) 2006	21 6 (Annual) 21 20 (Annual) 21 5 (Annual) 1 5 (Annual) 400 (24 hours) 4 (1 hours) 80 (24 hours) 180 (1 hours) 100 (24 hours) 100 (24 hours)	6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 100 (Annual)

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter, NA –Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



M.Sivaprakasam Lab Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in

12

13

Sulphur dioxide as SO2

Total Suspended Particular Matter



Laboratory Services Division

(Chemical & Biological Testing) **FSSAI** Notified Laboratory ISO 9001, 14001 & 45001 Certified.

				TROTT DE	DOBT		
				TEST RE	PORT	Pag	e:1 of 1
I.	4 4 4 4 4				ULR	: TC1231024	000016264F
E					Report No.	: HECS/AP/	7777/050424
Nan	ne of the Client	: M/s. Tami	Nadu Pe	tro Products Ltd.	. Sample ID No	: 050424258	
					Sampling Dat	: 05/04/2024	
Address of the Client : LAB Plant Manali Ex							
~					Chennai - 600 068.		
Group : Atmosphe			ion	Received Date	oero maca r		
	ole Name	: Ambient A	lir			Date: 05/04/2024	
	ole Mark	: NA			Completed Or		
	ample Reference : NA		100000	Report Date		: 11/04/2024	
	ble Drawn By	: M/s.Huber : Near RO I		care Systems (P)	Ltd. Sample quan	tity · NA	
Envi	ronmental Condition pling Method & Plan	: Temperatu : IS 5182 Pa			lity (%) : 56.0		
S.N	o. Test Para	meters	Units	Results	Test Method	NAAQ Stan	dards : 2009
Disc	ipline : Chemical						
1	Lead		μg/m³	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)
2	Arsenic		ng/m³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue	6 (Annual)	
3	Nickel		1 (11) (11) (11) (11) (11) (11)		No.:01 Issue Date:01.03.2021	o (rumuur)	6 (Annual)
	TVICKCI		ng/m³	BLQ (LOQ: 2.0)	No.:01 Issue Date:01.03.2021 HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	6 (Annual) 20 (Annual)
4	Benzene-AAQ		ng/m³ µg/m³	BLQ (LOQ: 2.0) BLQ (LOQ: 0.1)	HECS-G/INS/SOP/ 041 Issue		
		٩Q			HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
5	Benzene-AAQ	AQ	μg/m³	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 IS 5182 Part 11: 2006	20 (Annual) 5 (Annual)	20 (Annual) 5 (Annual) 1 (Annual)
5 6	Benzene-AAQ Benzo (a) pyrene-AA		μg/m³ ng/m³	BLQ (LOQ: 0.1) BLQ (LOQ: 0.1)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 IS 5182 Part 11: 2006 IS : 5182 Part 12: 2004	20 (Annual) 5 (Annual) 1 (Annual)	20 (Annual) 5 (Annual) 1 (Annual) 100 (Annual)
4 5 6 7 8	Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3	CO)	μg/m ³ ng/m ³ μg/m ³	BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 5.59	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 IS 5182 Part 11: 2006 IS : 5182 Part 12: 2004 IS 5182 (Part 25) 2018 IS 5182 (Part 10) Clause 4	20 (Annual) 5 (Annual) 1 (Annual) 400 (24 hours)	20 (Annual) 5 (Annual) 1 (Annual) 100 (Annual) 2 (8 hours)
5 6 7	Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3 Carbon Monoxide (0	CO)	μg/m ³ ng/m ³ μg/m ³ mg/ m ³	BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 5.59 BLQ(LOQ 0.05)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 IS 5182 Part 11: 2006 IS : 5182 Part 12: 2004 IS 5182 (Part 25) 2018 IS 5182 (Part 10) Clause 4 1999	20 (Annual) 5 (Annual) 1 (Annual) 400 (24 hours) 4 (1 hours)	20 (Annual) 5 (Annual) 1 (Annual) 100 (Annual) 2 (8 hours) 40 (Annual)
5 6 7 8	Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3 Carbon Monoxide (0 Nitrogen dioxides as	CO) 3 NO2	μg/m ³ ng/m ³ μg/m ³ mg/ m ³ μg/m ³	BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 5.59 BLQ(LOQ 0.05) 21.83	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 IS 5182 Part 11: 2006 IS : 5182 Part 12: 2004 IS 5182 (Part 25) 2018 IS 5182 (Part 10) Clause 4 I999 IS 5182 (Part 6) 2006	20 (Annual) 5 (Annual) 1 (Annual) 400 (24 hours) 4 (1 hours) 80 (24 hours)	20 (Annual) 5 (Annual)

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m3- Micrograms per cubic meter,

10.13

64.22

mg/m3-Milligrams per cubic meter, ng/m3-Nanograms per cubic meter, NA -Not Applicable.

µg/m³

µg/m³

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report

M.Sivaprakasam Lab Manager **Authorized Signatory**

80 (24 hours)

50 (Annual)

IS 5182 (Part 2) 2001

IS 5182 (Part 4) 1999

1V

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Ozone as O3

μm)

μm)

Particulate matter (Size less than 10

Particulate matter (Size less than 2.5

Sulphur dioxide as SO2

9

10

11

12



Laboratory Services Division

(Chemical & Biological Testing) FSSAI Notified Laboratory ISO 9001, 14001 & 45001 Certified.

-							
				TEST RE	PORT	Page	e:lof1
-					ULR	: TC1231024	
-							
-	IC-OT. AGE &				Report No.	HECS/AP/7	878/050424
Nan	ne of the Client	: M/s. Tamil	Nadu Pei	tro Products Ltd.	50 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	:050424259	
Address of the Client : LAB Plan				Sampling Date	: 05/04/2024		
			1 XX/ 341: /	Channel (00.069			
				D 2703/0 20	Chennai - 600 068. Received Date	: 05/04/2024	
Grouj	*C	: Atmospher		ion		ate: 05/04/2024	
Sample Name : Ambient A			ır		Completed On		
	le Mark	: NA					
	le Reference	:NA			Report Date	: 11/04/2024	
Samp	le Drawn By			care Systems (P)		ity · NA	
Samj	ple Location	: Near Drive	r Rest Re	oom Filling Paint	Backside		
Samj	pling Method & Plan	: IS 5182 Pa		32.0 Humid art 14			
3.NO			Tinito	Doculto	Test Mathad	NAAO Stan	larde + 2000
	1	meters	Units	Results	Test Method	NAAQ Stand	lards : 2009
	ipline : Chemical	meters					
Disc 1	1	meters	Units µg/m³	Results BLQ (LOQ: 0.002)	Test Method HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	NAAQ Stand 1 (24 hours)	
	ipline : Chemical	meters		BLQ (LOQ:	HECS-G/INS/SOP/ 041 Issue		dards : 2009 0.5 (Annual 6 (Annual)
1	ipline : Chemical Lead	meters	μg/m³	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 HECS-G/INS/SOP/ 041 Issue	1 (24 hours)	0.5 (Annual
1 2 3	ipline : Chemical Lead Arsenic	meters	µg/m³ ng/m³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 HECS-G/INS/SOP/ 041 Issue	1 (24 hours) 6 (Annual)	0.5 (Annua) 6 (Annual)
1 2 3 4	ipline : Chemical Lead Arsenic Nickel		μg/m ³ ng/m ³ ng/m ³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours) 6 (Annual) 20 (Annual)	0.5 (Annual 6 (Annual) 20 (Annual 5 (Annual)
1	ipline : Chemical Lead Arsenic Nickel Benzene-AAQ		μg/m ³ ng/m ³ ng/m ³ μg/m ³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 IS 5182 Part 11: 2006	1 (24 hours) 6 (Annual) 20 (Annual) 5 (Annual)	0.5 (Annual) 6 (Annual) 20 (Annual
1 2 3 4 5	ipline : Chemical Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA	4Q	μg/m ³ ng/m ³ ng/m ³ μg/m ³ ng/m ³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021 IS 5182 Part 11: 2006 IS : 5182 Part 12: 2004	1 (24 hours) 6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual)	0.5 (Annual) 6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual)

 13
 Total Suspended Particular Matter
 μg/m³
 72.41
 IS 5182 (Part 4) 1999

 Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, μg/m³- Micrograms per cubic meter, NA –Not Applicable.

11.33

49.21

23.20

8.66

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

 $\mu g/m^3$

µg/m³

 $\mu g/m^3$

 $\mu g/m^3$

End of Report

IS 5182 (Part 9) 1974

IS 5182 (Part 23) 2006

IS 5182 (Part 24) 2019

IS 5182 (Part 2) 2001



180 (1 hours)

100 (24 hours)

60 (24 hours)

80 (24 hours)

100 (8 hours)

60 (Annual)

40 (Annual)

50 (Annual)

Dr. Rajkumar Samuel Director Technical Authorized Signatory

 1. The report in full or part shall not be used for any promotional or publicity purpose without written consent by HECS organization
 2. Samples are not drawn by HECS unless or otherwise mentioned

 3. Unless specifically requested by customer the test items will not be retained more than 15 days from the date of issue of test report.
 4. Under no circumstances lab accepts any liability or loss / damage caused by use or misuse of test report after invoicing or issue of test report.
 5. The test results relate only to the test items.

 HECS-G/Q/FMT/49

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μm)



Laboratory Services Division

(Chemical & Biological Testing) **FSSAI** Notified Laboratory ISO 9001, 14001 & 45001 Certified.

	は 本語 本語 本語			TEST RE	PORT	D	
-				chine and a second s			e:1 of 1
13					ULR	: TC1231024	
L	I CAR AND A				Report No.	: HECS/AP/8	3080/050424
Nan	ne of the Client	: M/s. Tamil	Nadu Pe	tro Products Ltd.	, Sample ID No	:050424261	
					Sampling Dat	e :05/04/2024	
Add	ress of the Client	: LAB Plant					
		12			Chennai - 600 068.		
Group	p	: Atmospher	ic Pollut	ion	Received Date	e : 05/04/2024	
Samp	le Name	: Ambient A	ir		Commenced 1	Date: 05/04/2024	
Samp	le Mark	:NA			Completed O	n :10/04/2024	
Samp	le Reference	:NA			Report Date	: 11/04/2024	
Samp	le Drawn By	: M/s.Huber	t Enviro	care Systems (P)	Ltd. Sample quar	tity : NA	
Sam	ple Location	: South West	t Tank Fe	orm CP Station 0	1		
S.No	o. Test Para	meters	Units	Results	Test Method	NAAQ Stan	dards: 2009
Disci	ipline : Chemical						
1	Lead		µg/m³	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual
2	Arsenic		ng/m³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
3	Nickel		ng/m³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual
4	Benzene-AAQ		µg/m³	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
5	Benzo (a) pyrene-A/	AQ	ng/m ³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	l (Annual)
6	Ammonia as NH3		µg/m³	5.74	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annua
7	Carbon Monoxide (G	CO)	mg/ m ³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
8	Nitrogen dioxides as	NO2	µg/m³	19.35	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual
9	Ozone as O3		µg/m³	10.56	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hour
10	Particulate matter (S µm)	ize less than 10	µg/m³	45.93	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual
11	Particulate matter (S	ize less than 2.5	μg/m³	20.16	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annua

12 IS 5182 (Part 2) 2001 Sulphur dioxide as SO2 µg/m³ 9.82 80 (24 hours) 13 Total Suspended Particular Matter 66.09 IS 5182 (Part 4) 1999 µg/m³ Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m3- Micrograms per cubic meter, mg/m3-Milligrams per cubic meter, ng/m3-Nanograms per cubic meter, NA -- Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



Dr. Rajkumar Samuel

Director Technical Authorized Signatory

1. The report in full or part shall not be used for any promotional or publicity purpose without written consent by HECS organization 2. Samples are not drawn by HECS unless or otherwise mentioned 3. Unless specifically requested by customer the test items will not be retained more than 15 days from the date of issue of test report. 4. Under no circumstances lab accepts any liability or loss / damage caused by use or misuse of test report after invoicing or issue of test report. 5. The test results relate only to the test items.

50 (Annual)

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Laboratory Services Division

(Chemical & Biological Testing) FSSAI Notified Laboratory ISO 9001, 14001 & 45001 Certified.

112910				TEST RE	U	LR	: TC1231024	
	Land and the second					epori No.	: HECS/AP/8	181/050424
Nan	ne of the Client	: M/s. Tamill	Nadu Petro Products Ltd., Sample ID N		mple ID No	:050424262		
					Sa	mpling Date	: 05/04/2024	
Add	ress of the Client	: LAB Plant,						
1000			-		Chennai - 600 068	eceived Date	: 05/04/2024	
Group : Atmosphe Sample Name : Ambient A				on			ate: 05/04/2024	
Sample Name : Ambient A Sample Mark : NA			I r			ompleted On		
	le Mark le Reference				eport Date	: 11/04/2024		
-	ble Drawn By	: NA : M/s Huber	Fnviro	care Systems (P)		ample quant		
-	ple Location			all CP Station 03			5	
	ronmental Condition	: Temperatu			lity (%) : 56.0			
	pling Method & Plan	: IS 5182 Pa	rt 5 & Pa	art 14				
	1							
SN	Test Parar	neters	Units	Results	Test Meth	bod	NAAQ Stand	dards: 2009
S.No		neters	Units	Results	Test Meth	od	NAAQ Stand	dards: 2009
	o. Test Parar ipline : Chemical Lead	neters	Units µg/m³	Results BLQ (LOQ: 0.002)	Test Meth HECS-G/INS/SOF No.:01 Issue Date:	P/ 041 Issue	NAAQ Stand 1 (24 hours)	
Disc	ipline : Chemical	neters		BLQ (LOQ:	HECS-G/INS/SOF	P/ 041 Issue 01.03.2021 P/ 041 Issue	1 (24 hours) 6 (Annual)	0.5 (Annual 6 (Annual)
Disc 1 2	ipline : Chemical Lead	neters	µg/m³	BLQ (LOQ: 0.002)	HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP	P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue	1 (24 hours)	0.5 (Annual 6 (Annual)
Disc 1	ipline : Chemical Lead Arsenic	neters	µg/m³ ng/m³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0)	HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP	2/ 041 Issue 01.03.2021 2/ 041 Issue 01.03.2021 2/ 041 Issue 01.03.2021	1 (24 hours) 6 (Annual)	0.5 (Annual 6 (Annual) 20 (Annual
Disc 1 2 3 4	ipline : Chemical Lead Arsenic Nickel		µg/m³ ng/m³ ng/m³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0)	HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date:	 2/ 041 Issue 01.03.2021 2/ 041 Issue 01.03.2021 2/ 041 Issue 01.03.2021 2006 	1 (24 hours) 6 (Annual) 20 (Annual)	0.5 (Annual 6 (Annual) 20 (Annual 5 (Annual)
Disc 1 2 3	ipline : Chemical Lead Arsenic Nickel Benzene-AAQ		μg/m ³ ng/m ³ ng/m ³ μg/m ³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1)	HECS-G/INS/SOF No.:01 Issue Date: HECS-G/INS/SOF No.:01 Issue Date: HECS-G/INS/SOF No.:01 Issue Date: IS 5182 Part 11:	P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 2006 12: 2004	1 (24 hours) 6 (Annual) 20 (Annual) 5 (Annual)	0.5 (Annual 6 (Annual) 20 (Annual 5 (Annual) 1 (Annual)
Disc 1 2 3 4 5	ipline : Chemical Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA	NQ	μg/m ³ ng/m ³ ng/m ³ μg/m ³ ng/m ³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1)	HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: IS 5182 Part 11: IS : 5182 Part 1	 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 2006 2006 2004 2018 	1 (24 hours) 6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual)	0.5 (Annual 6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 100 (Annua
Disc 1 2 3 4 5 6 7	ipline : Chemical Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3	NQ 20)	μg/m ³ ng/m ³ ng/m ³ μg/m ³ μg/m ³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 6.10	HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: IS 5182 Part 11: IS : 5182 Part 1 IS 5182 (Part 2 IS 5182 (Part 10)	 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 2006 12: 2004 25) 2018 Clause 4 	1 (24 hours) 6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 400 (24 hours)	0.5 (Annual 6 (Annual) 20 (Annual) 1 (Annual) 100 (Annua 2 (8 hours)
Disc 1 2 3 4 5 6 7 8	ipline : Chemical Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3 Carbon Monoxide (C	NQ 20)	μg/m ³ ng/m ³ ng/m ³ μg/m ³ μg/m ³ mg/ m ³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 6.10 BLQ(LOQ 0.05)	HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: IS 5182 Part 11: IS : 5182 Part 11: IS : 5182 (Part 2 IS 5182 (Part 10) 1999	 2/ 041 Issue 01.03.2021 2/ 041 Issue 01.03.2021 2/ 041 Issue 01.03.2021 2/ 041 Issue 01.03.2021 2006 12: 2004 25) 2018 Clause 4 6) 2006 	1 (24 hours) 6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 400 (24 hours) 4 (1 hours)	0.5 (Annual 6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 100 (Annual 2 (8 hours) 40 (Annual
Disc 1 2 3 4 5 6	ipline : Chemical Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3 Carbon Monoxide (C Nitrogen dioxides as	NQ 20) NO2	μg/m ³ ng/m ³ ng/m ³ μg/m ³ μg/m ³ μg/m ³ μg/m ³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 6.10 BLQ(LOQ 0.05) 19.28	HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: IS 5182 Part 11: IS 5182 Part 11: IS 5182 (Part 2 IS 5182 (Part 10) 1999 IS 5182 (Part 10)	 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 2006 2006 2018 Clause 4 2006 2006 9) 1974 	1 (24 hours) 6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 400 (24 hours) 4 (1 hours) 80 (24 hours)	0.5 (Annual 6 (Annual) 20 (Annual) 1 (Annual) 100 (Annual) 2 (8 hours) 40 (Annual) 100 (8 hours)
Disc 1 2 3 4 5 6 7 8 8 9	ipline : Chemical Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3 Carbon Monoxide (C Nitrogen dioxides as Ozone as O3 Particulate matter (Si	NQ CO) NO2 ize less than 10	μg/m ³ ng/m ³ ng/m ³ μg/m ³ μg/m ³ μg/m ³ μg/m ³ μg/m ³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 6.10 BLQ(LOQ 0.05) 19.28 11.49	HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: IS 5182 Part 11: IS 5182 Part 11: IS 5182 (Part 10) 1999 IS 5182 (Part 10) 1999 IS 5182 (Part 10) 1999 IS 5182 (Part 10) 1999 IS 5182 (Part 10) 1999	 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 2006 2004 2004 2004 2004 2004 2006 2006 2006 2006 2006 2006 2006 2019 	1 (24 hours) 6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 400 (24 hours) 4 (1 hours) 80 (24 hours) 180 (1 hours) 100 (24 hours) 60 (24 hours)	0.5 (Annual 6 (Annual) 20 (Annual) 1 (Annual) 100 (Annual) 2 (8 hours) 40 (Annual) 100 (8 hour 60 (Annual) 40 (Annual)
Disc 1 2 3 4 5 6 7 8 9 10	ipline : Chemical Lead Arsenic Nickel Benzene-AAQ Benzo (a) pyrene-AA Ammonia as NH3 Carbon Monoxide (C Nitrogen dioxides as Ozone as O3 Particulate matter (Si µm) Particulate matter (Si	NQ 20) NO2 ize less than 10 ize less than 2.5	μg/m ³ ng/m ³ ng/m ³ μg/m ³ μg/m ³ μg/m ³ μg/m ³ μg/m ³ μg/m ³	BLQ (LOQ: 0.002) BLQ (LOQ: 2.0) BLQ (LOQ: 2.0) BLQ (LOQ: 0.1) BLQ (LOQ: 0.1) 6.10 BLQ(LOQ 0.05) 19.28 11.49 46.32	HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: HECS-G/INS/SOP No.:01 Issue Date: IS 5182 Part 11: IS 5182 (Part 2 IS 5182 (Part 2) IS 5182 (Part 10) 1999 IS 5182 (Part 12) IS 5182 (Part 12) IS 5182 (Part 12)	 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 P/ 041 Issue 01.03.2021 2006 2004 2004 2004 2004 2004 2006 2006 2006 2006 2006 2006 2006 2019 	1 (24 hours) 6 (Annual) 20 (Annual) 5 (Annual) 1 (Annual) 400 (24 hours) 4 (1 hours) 80 (24 hours) 180 (1 hours) 100 (24 hours)	dards : 2009 0.5 (Annual 6 (Annual) 20 (Annual) 1 (Annual) 100 (Annual) 2 (8 hours) 40 (Annual) 100 (8 hour 60 (Annual) 40 (Annual) 50 (Annual)

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter, NA –Not Applicable. Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



Dr. Rajkumar Samuel **Director Technical Authorized Signatory**

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		* B <i>4</i> /c *T21B	<u>TE</u> Nadu Petro Produ	ST REPORT	ULR Report No. Sample ID No	: TC123102	age : 1 of 1 24000021115F 2/119/050424	
Name of the Client Address of the Client		· M/s. Tamin	vadu retro rrodi	icts Ltu.,	Sampling Date	: 05/04/202	-	
		: LAB Plant, Manali Exp						
Group			ospheric Pollution Re			: 05/04/202	4	
Sample	Name	Stack Emis	sion		Commenced Da	Commenced Date: 05/04/2024		
Sample	Mark	: Emergency	: Emergency DG Set			Completed On : 11/05/2024		
Sample	Reference	: NA			Report Date			
	Drawn By le Location	: M/s.Hubert : NA	bert Enviro care Systems (P) Ltd. Sample quantity : NA					
	nmental Condition ng Method & Plan	[:] Temperatur : ISO 16000	re (°C) : 32.0	Humidity (%) : :	56.0			
S.No.	Test Pa	arameters	Units	Results	Test Met	hođ	CPCB Standards	
Discip	line : Chemical							
1	CarbonMonoxide (CO)	mg/Nm ³	56.95	IS 13270 Clause	e 4 1992	150	
2	Flue Gas Velocity		m/sec	9.3	IS 11255 (Part	3) 2008		
3	Particulate matter (I	PM)	mg/Nm ³	33.08	IS 11255 Part	1 1985	75	
4	Sulphur dioxide (SO	02)	mg/Nm ³	9.66	IS 11255 (Part	2) 1985	-	
				and the second				

5	Nitrogen dioxide(NO2)	mg/Nm ³	285.27	ASTM Method D6522 (by Flue gas Analyzer) 2000	710*
6	Carbon dioxide (CO2)	%	8.5	IS 13270 Clause 4 1992	-
7	Flue Gas Discharge (Flow Rate)	Nm³/hr	3980.0	IS 11255 (Part 3) 2008	
8	Fluegas Temperature	°C	117.0	IS 11255 (Part 3) 2008	-

CNTE- Concentration not to Exceed, mg/Nm3- Milligrams per Normal cubic meter, ºC- Degree Celsius,

m/s- Meter per second, %V/V - Percentage, NA - Not Applicable,*ppm- Parts Per Million.

Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards.

End of Report



M.Sivaprakasam Lab Manager **Authorized Signatory**

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710*

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TEST REPORT

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Page: 1 of 1

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S.No.	Test Pa	rameters	Units	Result	s	Test Method
	ental Condition Method & Plan	: Temperature (°C) : 32.0 : ISO 16000	Humidity (?	%):56.0		
Sample Dr Sample L		: M/s.Hubert Enviro care S NA	ystems (P) Ltd.	S	ample quantity	y : NA
Sample Ro	eference	: NA			leport Date	: 11/05/2024
Sample Ma	ark	: Emergency DG Set		C	Completed On	: 11/05/2024
Sample Na	ame	Stack Emission		C	Commenced Dat	e: 05/04/2024
Group		Atmospheric Pollution		R	eceived Date	: 05/04/2024
7 tuur ess	of the chem	Manali Express High Way	y, Manali, Chem	nai - 600 068	3.	
Address	of the Client	: LAB Plant.		S	ampling Date	: 05/04/2024
Name of	the Client	: M/s. TamilNadu Petro Pro	oducts Ltd.,		ample ID No	: 050424321
				R	eport No.	: HECS/AP/119/050424/N

5.110		Omto	icouns	restinction
Disci	pline : Chemical		1	
1	Non Methane Hydrocarons	mg/Nm ³	BLQ(LOQ 0.2)	HECS-G/INS/SOP/056 Issue
2	Hydrocarbons	μg/Nm³	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/019 Issue No.:01 Issue Date:01.03.2021
3	Olefins	μg/Nm ³	BLQ (LOQ: 0.1)	Inhouse Method

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

End of Report



M.Sivaprakasam Lab Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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		TES	T REPORT		Page: 1 of 1	
自然	201 C			ULR	: TC1231024000016268F	
	or hort			Report No.	: HECS/AP/082/050424	
Name	of the Client	: M/s. TamilNadu Petro Produ	icts Ltd.,	Sample ID No	: 050424263	
Addre	ess of the Client	: LAB Plant, Manali Express High Way, N	/anali Chennai - 60	Sampling Date	: 05/04/2024	
Group		Atmospheric Pollution	innan, chennar oo	Received Date	: 05/04/2024	
	Name	Stack Emission		Commenced Date: 05/04/2024		
Sample	Mark	: Hot Oil Heater Stack		Completed On	: 10/04/2024	
	Reference	: NA		Report Date	: 11/04/2024	
	Drawn By Location	:M/s.Hubert Enviro care Syst :NA	ems (P) Ltd.	Sample quantit	y : NA	
Environ	mental Condition g Method & Plan	: Temperature (°C) : 32.0 : ISO 16000	Humidity (%) : 56.	0		
	ē.	Sta	ick Details			
S.No.	Particulars	Units	Stack Specification	on		
1	Stack Height	Meter	76.0			
2	Stack Diameter	Meter	3.41			

S.No.	Test Parameters	Units	Results	Test Method	CPCB Standards
1	CarbonMonoxide (CO)	mg/Nm ³	57.29	IS 13270 Clause 4 1992	Max 150
2	Flue Gas Velocity	m/sec	8.5	IS 11255 (Part 3) 2008	-
3	Particulate matter (PM)	mg/Nm ³	6.42	IS 11255 Part 1 1985	Max 10
4	Sulphur dioxide (SO2)	mg/Nm ³	8.93	IS 11255 (Part 2) 1985	Max 50
5	Nitrogen dioxide(NO2)	mg/Nm ³	71.50	ASTM Method D6522 (by Flue gas Analyzer) 2000	Max 350
6	Carbon dioxide (CO2)	%	7.3	IS 13270 Clause 4 1992	Max 150
7	Flue Gas Discharge (Flow Rate)	Nm ³ /hr	104379.0	IS 11255 (Part 3) 2008	-
8	Fluegas Temperature	°K	451.0	IS 11255 (Part 3) 2008	- 7

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, Nm³/hr - Normal cubic meter per hour, CNTE-Concentration not to Exceed, mg/Nm3- Milligrams per Normal cubic meter, °C- Degree Celsius, %V/V - Percentage, NA - Not Applicable. Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards.

End of Report



Dr. Rajkumar Samuel **Director** Technical Authorized Signatory

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TEST REPORT

Page: 1 of 1

					Report No.	: HECS/AP/082/050424/N
Name	of the Client	: M/s. TamilNadu	Petro Product	s Ltd.,	Sample ID No	: 050424263
					Sampling Date	: 05/04/2024
Addre	ess of the Client	: LAB Plant,				
		Manali Express	High Way, Ma	nali, Chennai - 60	0 068.	
Group		: Atmospheric Po	llution		Received Date	: 05/04/2024
Sample	Name	Stack Emission			Commenced Da	te: 05/04/2024
Sample	Mark	: Hot Oil Heater	Stack		Completed On	: 10/04/2024
Sample	Reference	:NA			Report Date	: 11/04/2024
Sample	Drawn By	: M/s.Hubert Env	iro care Systen	ns (P) Ltd.	Sample quantit	Y'NA
Sampl	e Location	: NA				
	mental Condition	: Temperature (°(: ISO 16000	C): 32.0 H	lumidity (%) : 56.	0	
S.No.	Particulars		Units	Stack Specification	on	
Discip	line : Chemical					
	Test	Parameters	Units	Results		Test Method
1	Hydrocarbons		μg/Nm3	BLQ (LOQ: 0.1)	HECS	-G/INS/SOP/019 Issue
					In the second	Issue Date:01.03.2021
2	Non Methane Hyd	rocarons	mg/Nm3	BLQ (LOQ:0.2)	HECS-G/INS/SO	P/056 Issue
			100		No.:01 Issue Date	:01.03: 2021

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification.

Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards.

µg/Nm3

End of Report

BLO (LOO: 0.1)



Inhouse Method

Dr. Rajkumar Samuel Director Technical Authorized Signatory

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調整			TEST	<u>REPORT</u>		Page: 1 of 1
正好					ULR	: TC1231024000016269F
	Contraction of the second				Report No.	: HECS/AP/083/050424
Name	of the Client	: M/s. TamilNadu P	etro Produc	ts Ltd.,	Sample ID No	: 050424264
					Sampling Date	: 05/04/2024
Addre	ss of the Client	: LAB Plant,			1921 - 1973	
		Manali Express Hi	igh Way, Ma	anali, Chennai - 600	068.	
Group		: Atmospheric Pollu	ition		Received Date	: 05/04/2024
Sample	Name	Stack Emission			Commenced Da	te: 05/04/2024
Sample	Mark	: PACOL Heater St	ack		Completed On	: 10/04/2024
Sample	Reference	: NA			Report Date	: 11/04/2024
Sample	Drawn By	: M/s.Hubert Envir	o care Syste	ms (P) Ltd.	Sample quanti	ty : NA
Sample	e Location	: NA				
	mental Condition g Method & Plan	: Temperature (°C) : ISO 16000	: 32.0]	Humidity (%) : 56.0)	
			Stac	k Details		
S.No.	Particulars		Units	Stack Specification	n	
1	Stack Height		Meter	56.0		
2	Stack Diameter		Meter	1.1	1.2	

S.No.	Test Parameters	Units	Results	Test Method	CPCB Standards
1	CarbonMonoxide (CO)	mg/Nm ³	60.43	IS 13270 Clause 4 1992	Max 150
2	Flue Gas Velocity	m/sec	6.4	IS 11255 (Part 3) 2008	and the second se
3	Particulate matter (PM)	mg/Nm ³	8.90	IS 11255 Part 1 1985	Max 10
4	Sulphur dioxide (SO2)	mg/Nm ³	13.71	IS 11255 (Part 2) 1985	Max 50
5	Nitrogen dioxide(NO2)	mg/Nm ³	65.88	ASTM Method D6522 (by Flue gas Analyzer) 2000	Max 350
6	Carbon dioxide (CO2)	%	9.32	IS 13270 Clause 4 1992	-
7	Flue Gas Discharge (Flow Rate)	Nm³/hr	14406.0	IS 11255 (Part 3) 2008	-
8	Fluegas Temperature	°K	138.0	IS 11255 (Part 3) 2008	

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, Nm³/hr - Normal cubic meter per hour, CNTE-Concentration not to Exceed, mg/Nm³- Milligrams per Normal cubic meter, °C- Degree Celsius,%V/V - Percentage, NA - Not Applicable. Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards.

End of Report



Dr. Rajkumar Samuel

Dr. Rajkumar Samuel Director Technical Authorized Signatory

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TEST REPORT

Page: 1 of 1

		Report No.	: HECS/AP/083/050424/N	
Name of the Client	: M/s. TamilNadu Petro Products Ltd.,	Sample ID No	: 050424264	
		Sampling Date	: 05/04/2024	
Address of the Client	: LAB Plant,			
	Manali Express High Way, Manali, Chennai - 600	068.		
Group	: Atmospheric Pollution	Received Date	: 05/04/2024	
Sample Name	Stack Emission	Commenced Dat	e: 05/04/2024	
Sample Mark	: PACOL Heater Stack	Completed On	: 10/04/2024	
Sample Reference	: NA	Report Date	: 11/04/2024	
Sample Drawn By	: M/s.Hubert Enviro care Systems (P) Ltd.	Sample quantity : NA		
Sample Location	: NA			
Environmental Condition	: Temperature (°C) : 32.0 Humidity (%) : 56.0	6		
Sampling Method & Plan	: ISO 16000			
	Stool Details			

Stack Details

S.No.	Particulars	Units	Stack Specification	Dn		
Discipline : Chemical						
	Test Parameters	Units	Results	Test Method		
1	Hydrocarbons	μg/Nm3	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/019 Issue No.:01 Issue Date:01.03.2021		
2	Non Methane Hydrocarons	mg/Nm3	BLQ (LOQ:0.2)	HECS-G/INS/SOP/056 Issue No.:01 Issue Date:01.03: 2021		
3	Olefins	μg/Nm3	BLQ (LOQ: 0.1)	Inhouse Method		

Note:- BLQ - Below the Limit of Quartification, LOQ- Limit of Quantification.

Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards. ***End of Report***



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 2. Samples are not drawn by HECS unless or otherwise mentioned

 3. Unless specifically requested by customer the test items will not be retained more than 15 days from the date of issue of test report.
 4. Under no circumstances lab accepts any liability or loss / damage caused by use or misuse of test report after invoicing or issue of test report.
 5. The test results relate only to the test items.

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	TEST REPORT		Page: 1 of 1
正好会的好		ULR	: TC1231024000016270F
		Report No.	: HECS/AP/084/050424
Name of the Client	: M/s. TamilNadu Petro Products Ltd.,	Sample ID No	: 050424265
	27 	Sampling Date	: 05/04/2024
Address of the Client	: LAB Plant, Manali Express High Way, Manali, Chennai - 60	0 068.	
Group	: Atmospheric Pollution	Received Date	: 05/04/2024
Sample Name	Stack Emission	Commenced Dat	e: 05/04/2024
Sample Mark Sample Reference	: Boiler Stack : NA	Completed On Report Date	: 10/04/2024 : 11/04/2024
Sample Drawn By	: M/s.Hubert Enviro care Systems (P) Ltd.	Sample quantity	Y [∶] NA
Sample Location	: NA		
Environmental Condition Sampling Method & Plan	: Temperature (°C) : 32.0 Humidity (%) : 56. : ISO 16000	0	
	Stack Details		

S.No.	Particulars	Units	Stack Specification
1	Stack Height	Meter	30.0
2	Stack Diameter	Meter	1.4

S.No.	Test Parameters	Units	Results	Test Method	CPCB Standards
1	CarbonMonoxide (CO)	mg/Nm ³	10.5	IS 13270 Clause 4 1992	Max 150
2	Flue Gas Velocity	m/sec	2.9	IS 11255 (Part 3) 2008	-
3	Particulate matter (PM)	mg/Nm ³	7.74	IS 11255 Part 1 1985	Max 10
4	Sulphur dioxide (SO2)	mg/Nm ³	14.93	IS 11255 (Part 2) 1985	Max 50
5	Nitrogen dioxide(NO2)	mg/Nm ³	74.08	ASTM Method D6522 (by Flue gas Analyzer) 2000	Max 350
6	Flue Gas Discharge (Flow Rate)	Nm³/hr	10892.0	IS 11255 (Part 3) 2008	-
7	Fluegas Temperature	°K	176.0	IS 11255 (Part 3) 2008	-

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, Nm³/hr - Normal cubic meter per hour, CNTE-Concentration not to Exceed, mg/Nm³- Milligrams per Normal cubic meter, °C- Degree Celsius, %V/V - Percentage, NA - Not Applicable. Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards.

End of Report



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TEST REPORT

Page: 1 of 1

		Report No.	: HECS/AP/084/050424/N
Name of the Client	: M/s. TamilNadu Petro Products Ltd.,	Sample ID No	: 050424265
		Sampling Date	: 05/04/2024
Address of the Client	: LAB Plant,		
	Manali Express High Way, Manali, Chennai - 600	068.	
Group	: Atmospheric Pollution	Received Date	: 05/04/2024
Sample Name	Stack Emission	Commenced Date	e: 05/04/2024
Sample Mark	: Boiler Stack	Completed On	: 10/04/2024
Sample Reference	: NA	Report Date	: 11/04/2024
Sample Drawn By	: M/s.Hubert Enviro care Systems (P) Ltd.	Sample quantity	· NA
Sample Location	: NA		
Environmental Condition	: Temperature (°C) : 32.0 Humidity (%) : 56.0		
Sampling Method & Plan	: ISO 16000		
	Stack Details		

S.No. Particulars Units **Stack Specification** Discipline : Chemical **Test Parameters** Units Results **Test Method** 1 Hydrocarbons µg/Nm3 BLQ (LOO: 0.1) HECS-G/INS/SOP/019 Issue No.:01 Issue Date:01.03.2021 2 Non Methane Hydrocarons mg/Nm3 BLQ (LOQ:0.2) HECS-G/INS/SOP/056 Issue No.:01 Issue Date:01.03: 2021

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification.

Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards. ***End of Report***



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			<u>TEST</u>	REPORT	ULR Report No. Sample	: TC12310	age : 1 of 2 24000021111F P/115/050424
Name	of the Client	: M/s. TamilNadu I	Petro Product	s Ltd.,	ID No	: 05042431	17
Addre	ss of the Client	: LAB Plant, Manali Express H	liah Way Ma	nali Chennai - 6	Sampling Date	: 05/04/202	24
Group		: Atmospheric Poll		nan, chennar - o	Received Date	: 05/04/202	24
Sample	Name	Stack Emission			Commenced Dat	te: 05/04/202	24
Sample		: Hydrocarbon Sta	ck		Completed On	: 11/05/202	24
Sample	Reference	:NA			Report Date Sample quantit	: 11/05/202	24
Sampl Environ	Drawn By e Location Imental Condition Ig Method & Plan	: M/s.Hubert Envir : NA : Temperature (°C) : ISO 16000): 32.0 F	lumidity (%) : 50 c Details			
S.No.	Particulars		Units	Stack Specificat	ion		
1	Stack Height		Meter	30.0			
2	Stack Diameter		Meter	0.69			
Discip	line : Chemical						
S.No.	Test	Parameters	Units	Results	Test Me	ethod	CPCB Standards
1	CarbonMonoxide	(CO)	mg/Nm ³	43.26	IS 13270 Clau	use 4 1992	Max 150
2	Flue Gas Velocity		m/sec	6.2	IS 11255 (Par	rt 3) 2008	-
3	Particulate matter	(PM)	mg/Nm ³	8.32	IS 11255 Pa	rt 1 1985	Max 10
		the second se					

Sulphur dioxide (SO2) mg/Nm³ IS 11255 (Part 2) 1985 Max 50 4 14.20 Max 350 5 Nitrogen dioxide(NO2) 80.39 mg/Nm³ ASTM Method D6522 (by Flue gas Analyzer) 2000 Carbon dioxide (CO2) % 7.2 IS 13270 Clause 4 1992 -6 7 Flue Gas Discharge (Flow Rate) Nm³/hr 4315.0 IS 11255 (Part 3) 2008 -8 °C 250.0 Fluegas Temperature IS 11255 (Part 3) 2008 -

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, Nm3/hr - Normal cubic meter per hour,

CNTE- Concentration not to Exceed, mg/Nm³- Milligrams per Normal cubic meter, °C- Degree Celsius,

m/s- Meter per second, %V/V - Percentage, NA - Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards.

End of Report



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TEST REPORT

Page: 1 of 1

Name of the Client	: M/s. TamilNadu Petro Products Ltd.,	Report No. Sample ID No	: HECS/AP/115/050424/N : 050424317
		Sampling Date	: 05/04/2024
Address of the Client	: LAB Plant,		
	Manali Express High Way, Manali, Chennai - 600 (068.	
Group	: Atmospheric Pollution	Received Date	: 05/04/2024
Sample Name	Stack Emission	Commenced Dat	te: 05/04/2024
Sample Mark	: Hydrocarbon Stack	Completed On	: 11/05/2024
Sample Reference	: NA	Report Date	: 11/05/2024
Sample Drawn By Sample Location	: M/s.Hubert Enviro care Systems (P) Ltd. : NA	Sample quant	ity : NA
Environmental Condition Sampling Method & Plan	: Temperature (°C): 32.0 Humidity (%): 56.0 : ISO 16000		

S.No.	Test Parameters	Units	Results	Test Method
Discip	oline : Chemical			
1	Non Methane Hydrocarons	mg/Nm ³	BLQ(LOQ 0.2)	HECS-G/INS/SOP/056 Issue No.:01 Issue Date:01.03: 2021
2	Hydrocarbons	μg/Nm ³	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/019 Issue No.:01 Issue Date:01.03.2021
3	Olefins	μg/Nm ³	BLQ (LOQ: 0.1)	Inhouse Method

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

End of Report



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	Stack Details		
Environmental Condition Sampling Method & Plan	[:] Temperature (°C) : 32.0 Humidity (%) : 56.0 : ISO 16000		
Sample Drawn By Sample Location	:M/s.Hubert Enviro care Systems (P) Ltd. :NA	Sample quantit	y · IVA
Sample Reference	: NA	Report Date	: 11/05/2024
Sample Mark	: Captive Power Plant (CPP) DG Set 6.6MW	Completed On	: 11/05/2024
Sample Name	Stack Emission	Commenced Dat	te: 05/04/2024
Group	Atmospheric Pollution	Received Date	: 05/04/2024
Address of the Client	: LAB Plant, Manali Express High Way, Manali, Chennai - 600	068.	
		Sampling Date	: 05/04/2024
Name of the Client	: M/s. TamilNadu Petro Products Ltd.,	Sample ID No	: 050424318
		ULR Report No.	: TC1231024000021112F : HECS/AP/116/050424
	TEST REPORT		Page: 1 of 2

S.No.	Particulars	Units	Stack Specification
1	Stack Height	Meter	32.5
2	Stack Diameter	Meter	1.2

S.No.	Test Parameters	Units	Results	Test Method	CPCB Standards
1	CarbonMonoxide (CO)	mg/Nm ³	45.39	IS 13270 Clause 4 1992	Max 150
2	Flue Gas Velocity	m/sec	12.6	IS 11255 (Part 3) 2008	
3	Particulate matter (PM)	mg/Nm ³	43.79	IS 11255 Part 1 1985	Max 150
4	Sulphur dioxide (SO2)	mg/Nm ³	180.54	IS 11255 (Part 2) 1985	
5	Nitrogen dioxide(NO2)	mg/Nm ³	578.41	ASTM Method D6522 (by Flue gas Analyzer) 2000	Max 1100
6	Carbon dioxide (CO2)	%	8.5	IS 13270 Clause 4 1992	-
7	Flue Gas Discharge (Flow Rate)	Nm³/hr	36895.0	IS 11255 (Part 3) 2008	-
8	Fluegas Temperature	°C	103.0	IS 11255 (Part 3) 2008	

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, Nm³/hr - Normal cubic meter per hour, CNTE-Concentration not to Exceed, mg/Nm³- Milligrams per Normal cubic meter, °C- Degree Celsius,m/s- Meter per second, %V/V - Percentage, NA - Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards. ***End of Report***



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TEST REPORT

Page: 1 of 1

S.No.	Test Pa	rameters	Units	Result	s	Test Method
Environmental Sampling Methe	comunion	: Temperature (: ISO 16000	PC): 32.0 Humid	ity (%) : 56.0		el er
Sample Drawn Sample Locat		: M/s.Hubert En : NA	viro care Systems (P)	Ltd.	Sample quantit	IY NA
Sample Referen	nce	: NA			Report Date	: 11/05/2024
Sample Mark		: Captive Power	Plant (CPP) DG Set 6	.6MW	Completed On	: 11/05/2024
Sample Name		Stack Emission	ř.		Commenced Da	te: 05/04/2024
Group		: Atmospheric P	ollution		Received Date	: 05/04/2024
Address of th	e Client	: LAB Plant, Manali Express	s High Way, Manali, C	Chennai 600 0	68.	
	<u></u>				Sampling Date	: 05/04/2024
Name of the	Client	: M/s. TamilNad	u Petro Products Ltd.		Sample ID No	: 050424318
					Report No.	: HECS/AP/116/05042

iscipline :	Chemical			
1 Non M	lethane Hydrocarons	mg/Nm ³	BLQ(LOQ 0.2)	HECS-G/INS/SOP/056 Issue
2 Olefin	IS	μg/Nm ³	BLQ (LOQ: 0.1)	Inhouse Method
3 Hydro	carons	mg/Nm ³	BLQ (LOQ:0.2)	HECS-G/INS/SOP/056 Issue No.:01 Issue Date:01.03: 2021

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

End of Report



Ana

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8

9

10

11

12

13

Calcium as Ca

Chloride as Cl

Fluoride as F

Iron as Fe

Residual free chlorine

Copper

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

2.4

10.89

BLQ (LOQ:

0.01)

BLQ(LOQ:0.2)

BLQ(LOQ:0.1)

BLQ(LOQ:1.0)



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	新建国		TEST	REPORT		Page	e:1 of 2
15	646340				ULR	: TC12310240	000016091F
	100-100				Report No.	HECSL/WI	7/082/050424
Name	e of the Client	: M/s. TamilNadu	Petro Products	Ltd.,	Sample ID No	:050424229	
					Sampling Date	:05/04/2024	
Addr	ess of the Client	: LAB Plant, Manali Express	High Way, Mana	ali, Chennai - 600	068.		
Group)	: Water			Received Date	: 05/04/2024	
	le Name	: Drinking Water			Commenced D	ate: 05/04/2024	
Samp	le Mark	: Drinking Water			Completed On	: 11/04/2024	
Samp	le Reference	NA			Report Date Sample quant	: 11/04/2024	
Envir	ble Location onmental Condition ling Method & Plan	NA Temperature (°(IS 17614(Part-1):2021	midity (%) : 56.0			
S.No.	Test Parameters	Units	Results	Test Met	hod	IS 10500	: 2012
						Acceptable Limits (Max)	Permissible Limits (Max)
Disci	pline : Chemical						
1	Colour	Hazen units	BLQ(LOQ:1.0)	IS 3025 Part	4: 2021	5	15
2	Odour	-	Agreeable	IS 3025 (Part	5): 2018	Agreeable	Agreeable
3	pH at 25°C	-	7.98	IS 3025 Part I (Electrometric	- A. A. T. A.	6.5-8.5	No relaxation
4	Taste	-	Agreeable	IS 3025 Part	8: 1984	Agreeable	Agreeable
5	Turbidity	NTU	BLQ(LOQ:1.0)	IS 3025 Part	10: 1984	1	5
7.91						1000	
6	Total Dissolved Solids	s mg/l	42.0	IS 3025 Part	16: 1984	500	2000
6 7	Total Dissolved Solids Aluminium as Al	s mg/l mg/l	42.0 BLQ (LOQ: 0.01)	IS 3025 Part USEPA 200.		500 0.03	2000 0.2

IS 3025 Part 40: 1991(EDTA

Titrimetric Method)

IS 3025 Part 32 (Argentometric

method): 1988

USEPA 200.8 : 1994

APHA 23rd edition (Method 4500 F

-B,D): 2017

IS 3025 (Part 26): 2021 (DPD

method b,c)

Phenanthroline Method): 2003

IS 3025 (Part 53) (1,10



D.Anusuya

75

250

0.05

1.0

0.2

1.0

200

1000

1.5

1.5

1

No relaxation

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					1	Accentable I imits	Permissible		
S.No.	Test Parameters	Units	Results	Test Meth	ıod	IS 10500	: 2012		
	mental Condition g Method & Plan	Temperature (°C IS 17614(Part-1)		nidity (%) : 56.0					
Sample	Location	: NA							
Sample	Drawn By	: M/s.Hubert Env	iro care Systems (P) Ltd.	Sample quantity : 2 Litres				
Sample	Reference	NA			Report Date	: 11/04/2024			
Sample	Mark	: Drinking Water			Completed On	: 11/04/2024			
Sample	Name	: Drinking Water			Commenced D	menced Date: 05/04/2024			
Group		: Water			Received Date	: 05/04/2024			
		Manali Express	High Way, Manal	i, Chennai - 600	068.				
Address	s of the Client	: LAB Plant,							
					Sampling Date	:05/04/2024			
Name o	of the Client	: M/s. TamilNadu Petro Products Ltd.,			Sample ID No	:050424229			
E.K.	and the second				Report No.	: HECSL/WT	/082/050424		
15.4					ULR	: TC12310240	00016091F		
63			TEST R	EPORT		Page	:2 of 2		
	往在日								

S.No.	I est rarameters	Units Results		A cat Macinou	13 10300 : 2012		
					Acceptable Limits (Max)	Permissible Limits (Max)	
14	Magnesium as Mg	mg/l	1.7	IS 3025 Part 46: 1994 (Valumetric Method using EDTA)	30	100	
15	Manganese	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.1	0.3	
16	Nitrate as NO3	mg/l	2.81	APHA 23rd edition (Method 4500 NO3B): 2017	45	No relaxation	
17	Sulphate as SO4	mg/l	4.11	IS 3025 Part 24 Sec 1: 2022 (Turbidity method)	200	400	
18	Total alkalinity as CaCO3	mg/l	18.0	IS 3025 Part 23: 1986	200	600	
19	Total Hardness as CaCO3	mg/l	13.0	IS 3025 Part 21: 2009	200	600	
20	Zinc	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	5	15	
21	Cadmium	mg/l	BLQ (LOQ: 0.001)	USEPA 200.8 : 1994	0.003	No relaxation	
22	Lead	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation	
23	Mercury	mg/l	BLQ (LOQ: 0.0005)	USEPA 200.8 : 1994	0.001	No relaxation	
24	Total arsenic (as As), mg/l, Max	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	0.05	
25	Total chromium (as Cr), mg/l, Max	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.05	No relaxation	

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, NTU- Nephelometric Turbidity Unit, mg/l- Milligrams per litre, NA - Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of Drinking Water Standards IS:10500:2012.

End of Report

D.Anusuya Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



Laboratory Services Division

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			TEST F		ort No.	Page : TC12310240 : HECSL/WT		
Name	e of the Client	: M/s. TamilNadu)	Petro Products L	td., San	ple ID No	:050424243		
Addre	ess of the Client	: LAB Plant, Manali Express F	ligh Way, Manal	San i, Chennai - 600 068.	pling Date	:05/04/2024		
Group		: Water		Rec	eived Date	: 05/04/2024		
Sampl	e Name	: Drinking Water		Cor	nmenced Dat	Date: 06/04/2024		
Sampl	e Mark	: Drinking Water		Cor	npleted On	:07/04/2024		
Sampl	e Reference	: NA		Rep	ort Date	:11/04/2024		
Samp	e Drawn By le Location nmental Condition	: M/s.Hubert Envi : NA : Temperature (°C)	•	P) Ltd. San aidity (%) : 46.0	nple quantity	^{, :} 100ml		
Sampl	ing Method & Plan	: HECS-G/Micro/	Sop/04					
S.No.	Test Parameters	Units	Results	Test Method		IS 10500 : 2012		
		~	21 - 18		A	cceptable Limits (Max)	Permissible Limits (Max)	
Discip	oline : Biological							
1	Escherichia Coli	Per 100ml	Absent	IS 15185:2016		Absent/100ml	NA	
2	Total Coliform	Per 100ml	Absent	IS 15185 : 2016		Absent/100ml	NA	

Remarks: The Tested Parameters as above are within the Limits of Drinking Water Standards IS:10500:2012.

End of Report



Dr. Rajkumar Samuel **Director Technical**

Authorized Signatory

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			TES	T REPORT		Page	:1 of 3
10					ULR	: TC12310240	
	C-CE Acart				Report No.	: HECSL/WT	7/083/050424
Nam	e of the Client	: M/s. Tami	INadu Petro Produc		Sample ID No	:050424230	
Addr	ess of the Client	: LAB Plant Manali Ex	•	anali, Chennai - 600 06	Sampling Date	:05/04/2024	
Grou)	: Water		1	Received Date	: 05/04/2024	
Samp	le Name	Ground W	ater	(Commenced Da	te: 05/04/2024	
Samp	le Mark	Borewell V	Vater-West	(Completed On	: 11/04/2024	
Samp		NA		1	Report Date	: 11/04/2024	
Samj Envir Samp	ble Location onmental Condition ling Method & Plan	: West : Temperatu : IS 17614(P	art-1):2021	Humidity (%) : 56.0	Sample quanti		
S.No.	Test Parameters	Uni	ts Results	Test Method	۲ L	IS 10500 : 2012	
					1	Acceptable Limits (Max)	Permissible Limits (Max)
Disci	pline : Chemical						
1	Biological Oxygen Demand (BOD)@ 27°C For 3 days	mg	1 BLQ(LOQ:2.0) IS 3025 Part 44:	1993	NA	NA
2	Calcium as Ca	mg	96.19	IS 3025 Part 40: 199 Titrimetric Met		75	200
	Chaminal One D			10 2025 2 . 50		3.7.4	

	Biological Oxygen Demand (BOD)@ 27°C For 3 days	mg/l	BLQ(LOQ:2.0)	
	Calcium as Ca	mg/l	96.19	IS
-	Chemical Oxygen Demand	mg/l	BLQ(LOQ:4.0)	

	For 3 days					
2	Calcium as Ca	mg/l	96.19	IS 3025 Part 40: 1991(EDTA Titrimetric Method)	75	200
3	Chemical Oxygen Demand (COD)	mg/l	BLQ(LOQ:4.0)	IS 3025 Part 58: 2006	NA	NA
4	Chloride as Cl	mg/l	861.09	IS 3025 Part 32: 1988 (Argentometric Method)	250	1000
5	Residual free chlorine	mg/l	BLQ(LOQ:0.1)	IS 3025 (Part 26): 2021 (DPD method b,c)	0.2	1
6	Colour	Hazen units	BLQ(LOQ:1.0)	IS 3025 (Part4): 2021	5	15
7	Dissolved oxygen	mg/l	6.5	IS 3025 (Part 38): 1989 (Titrimetric Method)	NA	NA
8	Electrical Conductivity at 25°C	μS/cm	4450.0	IS 3025 Part-14: 2013	NA	NA
9	Fluoride as F	mg/l	0.51	APHA 23rd edition (Method 4500F- B, D): 2017	1.0	1.5
10	Iron as Fe	mg/l	0.084	IS 3025 (Part 53): 2003	1.0	No relaxation
11	Magnesium as Mg	mg/l	48.6	IS 3025 Part 46: 1994 (Valumetric	30	100



Method using EDTA)

D.Anusuya Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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日常注意日		TEST RI	EPORT		Page	:2 of 3
EN 202				ULR Report No.	: TC12310240 : HECSL/WT	
Name of the Client	: M/s. TamilNadu	Petro Products Lte	ď.,	Sample ID No	: 050424230	1005/050424
				Sampling Date	:05/04/2024	
Address of the Client	: LAB Plant,					
	Manali Express H	ligh Way, Manali,	, Chennai - 600 (68.		
Group	: Water	: Water			: 05/04/2024	
Sample Name	: Ground Water	: Ground Water			nte: 05/04/2024	
Sample Mark	· Borewell Water-	: Borewell Water-West			:11/04/2024	
Sample Reference	NA				: 11/04/2024	
Sample Drawn By		: NA Report Date : M/s.Hubert Enviro care Systems (P) Ltd. Sample qua				
Sample Location	: West					
Environmental Condition Sampling Method & Plan	· remperature (c		idity (%) : 56.0			
S.No. Test Parame	ters Units	Results	Test Meth	od	IS 10500	: 2012
					Acceptable Limits (Max)	Permissible Limits (Max)

0					Acceptable Limits (Max)	Permissible Limits (Max)
12	Nitrate as NO3	mg/l	23.03	APHA 23rd edition (Method 4500 NO3B): 2017	45	No relaxation
13	Odour		Agreeable	IS 3025 (Part 5): 2018	Agreeable	Agreeable
14	pH at 25°C	7	7.61	IS 3025(Part 11) : 2022 (Electrometric method)	6.5-8.5	No relaxation
15	Salinity	ppt	1.56	APHA 23rd edition (Method 2520 B): 2017	NA	NA
16	Sodium as Na	mg/l	413.0	IS 3025 Part 45: 1993 (Fleme emission Photometric Method)	NA	NA
17	Sulphate as SO4	mg/l	120.0	IS 3025 Part 24 Sec 1: 2022(Turbidity Method)(Turbidity Method)	200	400
18	Temperature(°C)	°C	26.6	IS 3025 (Part 9): 1984	NA	NA
19	Total alkalinity as CaCO3	mg/l	470.0	IS 3025 (Part 23): 1986	200	600
20	Total dissolved solids	mg/l	1879.0	IS 3025 (Part 16): 1984	500	2000
21	Total hardness as CaCO3	mg/l	440.0	IS 3025 (Part 21): 2009	200	600
22	Turbidity, NTU	NTU	1.2	IS 3025 (Part 10): 1984	1	5
23	Taste		Agreeable	IS 3025 Part 8: 1984	Agreeable	Agreeable
24	Aluminium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.03	0.2
25	Arsenic	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation



D.Anusuya

Deputy Quality Manager Authorized Signatory

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Chromium

Manganese

Mercury

Copper

Lead



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			TEST I	REPORT		Page	:3 of 3	
153					ULR	: TC12310240		
	Fut the			1	Report No.	: HECSL/WT	/083/050424	
Name	e of the Client	: M/s. TamilNad	u Petro Products L	.td., 5	Sample ID No	:050424230		
				5	Sampling Date	:05/04/2024		
Addr	ess of the Client	: LAB Plant,						
		Manali Expres	s High Way, Mana	li, Chennai - 600 06	8.			
Group)	: Water		1	Received Date	: 05/04/2024		
Samp	le Name	: Ground Water		÷ (Commenced Da	te: 05/04/2024		
Samp	le Mark	: Borewell Wate	r-West		Completed On :11/04/2024			
Samp	le Reference	:NA Report Date			Report Date	: 11/04/2024		
Samp	le Drawn By	: M/s.Hubert En	viro care Systems ((P) Ltd.	Sample quantity : 2 Litres			
Samp	le Location	: West						
	onmental Condition ling Method & Plan	: Temperature (: IS 17614(Part-		midity (%) : 56.0				
S.No.	Test Parameters	Units	Results	Test Method	i i	IS 10500	: 2012	
					Α	Acceptable Limits (Max)	Permissible Limits (Max)	
26	Cadmium	mg/l	BLQ (LOQ: 0.001)	USEPA 200.8 :	1994	0.003	No relaxation	

USEPA 200.8 : 1994	5	
	USEPA 200.8 : 1994	USEPA 200.8 : 1994 5

mg/l- Milligrams per litre, NA - Not Applicable.

BLQ (LOQ:

0.01)

BLQ (LOQ:

0.01)

BLQ (LOQ: 0.005)

0.081

BLQ (LOQ:

mg/l

mg/l

mg/l

mg/l

mg/l

End of Report

USEPA 200.8: 1994



0.05

0.05

0.01

0.1

0.001

No relaxation

1.5

No relaxation

0.3

No relaxation

15

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	10 D		TEST R	EPORT ULR	Page : TC12310240	: 1 of 1		
	210			Report N				
Name	of the Client	: M/s. TamilNadu P	etro Products Li			1901050424		
Ivaniev	of the Chefit	- IVA/S. A GRANNEL VISUE A	eno riodaeto Di	Samplin				
Addres	ss of the Client	: LAB Plant,						
		Manali Express H	igh Way, Manal	i, Chennai - 600 068.				
Group		: Water		Receive	d Date : 05/04/2024			
Sample Name Sample Mark		: Ground Water		Comme	Commenced Date: 06/04/2024			
		Test Bore-West	: Test Bore-West Completed On					
	Reference	NA		Report I	Report Date : 11/04/2024			
	Drawn By e Location	: M/s.Hubert Enviro care Systems (P) Ltd. Sample quantity : 100ml : NA						
	mental Condition ng Method & Plan	: Temperature (°C) : HECS-G/Micro/S	1 Baserer	iidity (%) : 46.0				
S.No.	Test Parameters	Units	Results	Test Method	IS 10500	: 2012		
					Acceptable Limits (Max)	Permissible Limits (Max)		
Discip	line : Biological							
1	Faecal Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA		
2	Total Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA		

Note:- MPN-Most Propable Number, <2 is Considered as Absent.

End of Report



Dr. Rajkumar Samuel Director Technical Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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回新建具		TEST	REPORT		
Month Months		ILSI		I	Page: 1 of 3
TER ARCEN			ULR	: TC12310	024000016093F
			Report	No. : HECSL	WT/084/050424
Name of the Client	: M/s. TamilNadu Pe	etro Products I	.td., Sample	ID No :0504242	31
			Samplin	ng Date :05/04/20	24
Address of the Client	: LAB Plant,				
	Manali Express Hi	gh Way, Mana	ali, Chennai - 600 068.		
Group	: Water		Receive	ed Date : 05/04/20	24
Sample Name	: Ground Water		Comme	enced Date: 05/04/20	24
Sample Mark	: Borewell Water-E	ast	Comple	eted On : 11/04/20	24
Sample Reference	:NA		Report	Date :11/04/20	24
Sample Drawn By	: M/s.Hubert Envir	o care Systems	(P) Ltd. Sample	e quantity : 2 Litres	
Sample Location	East				
Environmental Condition Sampling Method & Plan	: Temperature (°C) : IS 17614(Part-1):2		midity (%) : 56.0		
S.No. Test Parame	ers Units	Results	Test Method	ISI	0500 : 2012
				Acceptable Lin (Max)	nits Permissible Limits (Max)

					(Max)	Limits (Max)
Disc	ipline : Chemical					
1	Biological Oxygen Demand (BOD)@ 27°C For 3 days	mg/l	3.0	IS 3025 Part 44: 1993 NA		NA
2	Calcium as Ca	mg/l	40.08	IS 3025 Part 40: 1991(EDTA Titrimetric Method)	75	200
3	Chemical Oxygen Demand (COD)	mg/l	24.0	IS 3025 Part 58: 2006	NA	NA
4	Chloride as Cl	mg/l	791.81	IS 3025 Part 32: 1988 (250 Argentometric Method)		1000
5	Residual free chlorine	mg/l	BLQ(LOQ:0.1)	IS 3025 (Part 26): 2021 (DPD method b,c)	0.2	1
6	Colour	Hazen units	5.0	IS 3025 (Part4): 2021	5	15
7	Dissolved oxygen	mg/l	6.4	IS 3025 (Part 38): 1989 (Titrimetric Method)	NA	NA
8	Electrical Conductivity at 25°C	μS/cm	4890.0	IS 3025 Part-14: 2013	NA	NA
9	Fluoride as F	mg/l	0.91	APHA 23rd edition (Method 4500F- B, D): 2017		1.5
10	Iron as Fe	mg/l	0.24	IS 3025 (Part 53): 2003	1.0	No relaxation
11	Magnesium as Mg	mg/l	24.3	IS 3025 Part 46: 1994 (Valumetric Method using EDTA)	30	100



D.Anusuya Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in

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			TEST	<u>[REPORT</u> ULR Report No	: TC123102	ge : 2 of 3 4000016093F T/084/050424
Name	of the Client	: M/s. TamilNadı	Petro Product	s Ltd., Sample II	DNo :050424231	
Group Samp Samp Samp Samp Samp Envir	le Name le Mark le Reference le Drawn By ole Location onmental Condition	: LAB Plant, Manali Express : Water : Ground Water : Borewell Water : NA : M/s.Hubert Env : East : Temperature (% : IS 17614(Part-1	-East /iro care Syster C) : 32.0 F	Complete Report D	Date : 05/04/2024 ced Date: 05/04/2024 d On : 11/04/2024	
S.No.	ing Method & Plan Test Parameters	Units	Results	Test Method	IS 105	00 : 2012
5.110.					Acceptable Limits (Max)	Permissible Limits (Max)
12	Nitrate as NO3	mg/l	28.84	APHA 23rd edition (Method 45 NO3B): 2017	00 45	No relaxation
13	Odour		Agreeable	IS 3025 (Part 5): 2018	Agreeable	Agreeable
14	pH at 25°C	-	8.17	IS 3025(Part 11) : 2022 (Electrometric method)	6.5-8.5	No relaxation
15	Salinity	ppt	1.43	APHA 23rd edition (Method 2: B): 2017	520 NA	NA
16	Sodium as Na	mg/l	400.0	IS 3025 Part 45: 1993 (Flem emission Photometric Method	2 C C C C C C C C C C C C C C C C C C C	NA
1	the second s					

160.7 IS 3025 Part 24 Sec 1: 2022(200 400 Sulphate as SO4 mg/l Turbidity Method)(Turbidity Method) IS 3025 (Part 9): 1984 NA Temperature(°C) °C 26.7 NA IS 3025 (Part 23): 1986 200 600 Total alkalinity as CaCO3 420.0 mg/l 500 2000 1730.0 IS 3025 (Part 16): 1984 Total dissolved solids mg/l 200.0 IS 3025 (Part 21): 2009 200 600 Total hardness as CaCO3 mg/l 5 IS 3025 (Part 10): 1984 1 Turbidity, NTU NTU 4.1 Agreeable IS 3025 Part 8: 1984 Agreeable Taste Agreeable 0.03 0.2 BLQ (LOQ: USEPA 200.8:1994 Aluminium mg/l 0.01) 0.01 No relaxation 0.009 USEPA 200.8: 1994 Arsenic mg/l 0.003 No relaxation USEPA 200.8: 1994 Cadmium mg/l BLQ (LOQ: 0.001)



D.Anusuya Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in

La Line La manue de

31

32

Mercury

Zinc



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			<u>TEST R</u>	EPORT		0	:3 of 3
133					ULR	: TC12310240	
	F.200-2525				Report No.	HECSL/WT	7084/050424
Name	e of the Client	: M/s. TamilNad	u Petro Products Li	t d. ,	Sample ID No	:050424231	
					Sampling Date	:05/04/2024	
Addre	ess of the Client	: LAB Plant,	-				
		Manali Express	s High Way, Manal	i, Chennai - 600 ()68.		
Group)	: Water			Received Date	: 05/04/2024	
Sampl	le Name	Ground Water			Commenced Da	te: 05/04/2024	
Sampl	le Mark	: Borewell Wate	r-East		Completed On	: 11/04/2024	
S	le Reference	:NA			Report Date	: 11/04/2024	
Sampl	le Drawn By	: M/s.Hubert En	viro care Systems ()	P) Ltd.	Sample quanti		
Sampl Samp Enviro Sampl		: M/s.Hubert En : East : Temperature (: IS 17614(Part-	PC): 32.0 Hun	P) Ltd. nidity (%) : 56.0 	Sample quanti		9 : 2012
Sampl Samp Enviro	le Drawn By ble Location onmental Condition ing Method & Plan	: M/s.Hubert En : East : Temperature (: IS 17614(Part-	PC): 32.0 Hun 1):2021	nidity (%) : 56.0	Sample quanti	ty : 2 Litres	9 : 2012 Permissible Limits (Max)
Sampl Samp Enviro Sampl	le Drawn By ble Location onmental Condition ing Method & Plan	: M/s.Hubert En : East : Temperature (: IS 17614(Part-	PC): 32.0 Hun 1):2021	nidity (%) : 56.0	Sample quanti	ty : 2 Litres IS 10500 Acceptable Limits	Permissible
Sampl Samp Enviro Sampl S.No.	le Drawn By ole Location onmental Condition ing Method & Plan Test Parameters	: M/s.Hubert En : East : Temperature (: IS 17614(Part-) Units	PC): 32.0 Hun 1):2021 Results BLQ (LOQ:	nidity (%) : 56.0 Test Meth	Sample quanti	ty [:] 2 Litres IS 10500 Acceptable Limits (Max)	Permissible Limits (Max)
Sampl Samp Enviro Sampl S.No. 27 28	le Drawn By ole Location onmental Condition ling Method & Plan Test Parameters Chromium	: M/s.Hubert En : East : Temperature (: IS 17614(Part-) Units mg/l	PC): 32.0 Hum 1):2021 Results BLQ (LOQ: 0.01) BLQ (LOQ:	nidity (%) : 56.0 Test Meth USEPA 200.8	Sample quanti iod 3 : 1994 3 : 1994	IS 10500 Acceptable Limits (Max) 0.05	Permissible Limits (Max) No relaxation 1.5
Sampl Samp Enviro Sampl S.No. 27	le Drawn By ole Location onmental Condition ing Method & Plan Test Parameters Chromium Copper	: M/s.Hubert En : East : Temperature (: IS 17614(Part-) Units mg/l mg/l	PC): 32.0 Hum 1):2021 Results BLQ (LOQ: 0.01) BLQ (LOQ: 0.01) BLQ (LOQ:	nidity (%) : 56.0 Test Meth USEPA 200.8 USEPA 200.8	Sample quanti od 3 : 1994 3 : 1994 3 : 1994	IS 10500 Acceptable Limits (Max) 0.05 0.05	Permissible Limits (Max) No relaxation

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, NTU- Nephelometric Turbidity Unit, mg/l- Milligrams per litre, NA - Not Applicable.

BLQ (LOQ:

0.0005)

BLQ (LOQ:

0.01)

mg/l

mg/l

End of Report

USEPA 200.8: 1994

USEPA 200.8: 1994



0.001

5

No relaxation

15

D.Anusuya Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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Absent/100ml

NA

	NARIE NARIE NARIE		TEST	REPORT	ULR	Page : TC12310240	: 1 of 1 00016104F
					Report No.	: HECSL/WT	/91/050424
Name	e of the Client	: M/s. TamilNadu l	Petro Products	Ltd.,	Sample ID No	: 050424242	
					Sampling Date	: 05/04/2024	
Addr	ess of the Client	: LAB Plant,					
		Manali Express H	ligh Way, Mana	ali, Chennai - 600 (068.		
Group		: Water			Received Date	: 05/04/2024	
Samp	e Name	: Ground Water			Commenced Da	ate: 06/04/2024	
Samp	e Mark	: Test Bore-East		2	Completed On	: 08/04/2024	
Sampl	e Reference	:NA			Report Date	: 11/04/2024	
	e Drawn By ble Location	:M/s.Hubert Envi :NA	ro care Systems	(P) Ltd.	Sample quanti	ty : 100 ml	
Enviro	nmental Condition	: Temperature (°C) : HECS-G/Micro/S	있다. [응한경험 · · · · · · · · · · · · · · · · · · ·	midity (%) : 46.0			
S.No.	Test Parameters	Units	Results	Test Meth	iod	IS 10500	: 2012
						Acceptable Limits (Max)	Permissible Limits (Max)
Disci	pline : Biological						
1	Faecal Coliform	MPN/100ml	<2	IS 1622 : 1	981	Absent/100ml	NA

Note:- MPN-Most Propable Number, <2 is Considered as Absent.

MPN/100ml

2

Total Coliform

*** End of Report***

IS 1622: 1981

<2



Dr. Rajkumar Samuel Director Technical Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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	TEST REPORT		Page: 1 of 5
1. 41.40.40		ULR	: TC1231024000016095F
		Report No.	: HECS/PE/052/050424
Name of the Client	: M/s. TamilNadu Petro Products Ltd.,	Sample ID No	: 050424233
		Sampling Date	: 05/04/2024
Address of the Client	: LAB Plant, Manali Express High Way, Manali, Chennai - 600 (068.	
Group	: Pollution & Environment	Received Date	: 05/04/2024
Sample Name	: Waste Water	Commenced Date	e: 05/04/2024
Sample Mark	: RO Permeate	Completed On	: 11/04/2024
Sample Reference	: NA	Report Date	: 11/04/2024
Sample Drawn By	: M/s.Hubert Enviro care Systems (P) Ltd.	Sample quantity	¹ ² Litres
Sample Location	: NA		
Environmental Condition	: Temperature (°C) : 32.0 Humidity (%) : 56.0		
Sampling Method & Plan	: IS 17614(Part-10):2021		

S.No.	Test Parameters	Units	Results	Test Method	TNPCB Limits*
Discip	line : Chemical		L		
Pestic	ides				
1	Alachlor	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
2	Aldrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
3	Alpha BHC	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
4	Atrazine	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
6	Beta BHC	mg/L.	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
7	Butachlor	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
8	Chloropyrifos	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
9	Delta BHC	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
10	Dieldrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent



D.Anusuya

Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



Laboratory Services Division

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	TEST REPORT		Door 12 off
100 A 100		ULR	Page : 2 of 5 : TC1231024000016095F
回进现公		Report No.	: HECS/PE/052/050424
Name of the Client	: M/s. TamilNadu Petro Products Ltd.,	Sample ID No	: 050424233
		Sampling Date	: 05/04/2024
Address of the Client	: LAB Plant, Manali Express High Way, Manali, Chennai - 600	068.	
Group	: Pollution & Environment	Received Date	: 05/04/2024
Sample Name	: Waste Water	Commenced Da	te: 05/04/2024
Sample Mark	: RO Permeate	Completed On	: 11/04/2024
Sample Reference	: NA	Report Date	: 11/04/2024
Sample Drawn By	: M/s.Hubert Enviro care Systems (P) Ltd.	Sample quantit	ly [:] 2 Litres
Sample Location	: NA		
Environmental Condition Sampling Method & Plan	: Temperature (°C) : 32.0 Humidity (%) : 56.0 : IS 17614(Part-10):2021		

S.No.	Test Parameters	Units	Results	Test Method	TNPCB Limits*
11	Deltamethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
12	Endosulfan alpha	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
13	Endosulfan beta	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
14	Endosulfan sulfate	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
15	Ethion	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
16	Gamma BHC	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
17	Malathion	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
18	o,p-DDD	mg/L	BLQ (LOQ: 0.0001)	Q: HECSG/INS/SOP/032 Issue No.:01	
19	o,p-DDE	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
20	o,p-DDT	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent



Trop D.Anusuya

Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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回給会に回	TEST REPORT		Page: 3 of 5
China and		ULR	: TC1231024000016095F
		Report No.	: HECS/PE/052/050424
Name of the Client	: M/s. TamilNadu Petro Products Ltd.,	Sample ID No	: 050424233
		Sampling Date	: 05/04/2024
Address of the Client	: LAB Plant, Manali Express High Way, Manali, Chennai - 600	068.	
Group	: Pollution & Environment	Received Date	: 05/04/2024
Sample Name	: Waste Water	Commenced Dat	e: 05/04/2024
Sample Mark	: RO Permeate	Completed On	: 11/04/2024
Sample Reference	: NA	Report Date	: 11/04/2024
Sample Drawn By Sample Location	: M/s.Hubert Enviro care Systems (P) Ltd. : NA	Sample quantit	y [:] 2 Litres
Environmental Condition Sampling Method & Plan	: Temperature (°C) : 32.0 Humidity (%) : 56.0 : IS 17614(Part-10):2021		

S.No.	Test Parameters	Units	Results	Test Method	TNPCB Limits*
21	p,p'-DDD	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
22	p,p'-DDE	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
23	p,p'-DDT	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
24	Parathion-methyl	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
25	Phorate	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
26	2,4-D	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
27	Isoproturon	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
28	Malaoxon	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
29	Methyl Paraoxon	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
30	Methyl Parathion	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent



Cor sau D.Anusuya **Deputy Quality Manager**

Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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口許我回	TEST REPORT		Page: 4 of 5
THE ACTOR		ULR	: TC1231024000016095F
回行于现代		Report No.	: HECS/PE/052/050424
Name of the Client	: M/s. TamilNadu Petro Products Ltd.,	Sample ID No	:050424233
		Sampling Date	: 05/04/2024
Address of the Client	: LAB Plant, Manali Express High Way, Manali, Chennai - 600 ()68.	
Group	· Pollution & Environment	Received Date	: 05/04/2024
Sample Name	: Waste Water	Commenced Dat	te: 05/04/2024
Sample Mark	: RO Permeate	Completed On	: 11/04/2024
Sample Reference	:NA	Report Date	: 11/04/2024
Sample Drawn By	: M/s.Hubert Enviro care Systems (P) Ltd.	Sample quantit	y [:] 2 Litres
Sample Location	: NA		
Environmental Condition	: Temperature (°C) : 32.0 Humidity (%) : 56.0		
Sampling Method & Plan	: IS 17614(Part-10):2021		

S.No.	Test Parameters	Units	Results	Test Method	TNPCB Limits*
31	Monocrotophos	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
32	Phorate Sulfone	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
33	Phorate Sulfoxide	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
34	Arsenic	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 Revision 5.4: 1994	Absent
35	Cadmium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 Revision 5.4: 1994	Absent
36	Chromium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 Revision 5.4: 1994	Absent
37	Copper	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994	Absent
38	Nickel	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994	Absent
39	Selenium	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 Revision 5.4: 1994	Absent
40	Zinc	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994	Absent



D.Anusuya C

Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



Laboratory Services Division

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		M/s. TamilNadu		ST REPORT	11.548	
Name of the Client : M/s. TamilNad		WI/S. Tannitadu	II cho i loudets brong		Sampling Date : 05/04/2024	
		LAB Plant, Manali Express Pollution & Env		/Ianali, Chennai - (600 068. Received Date : 05/04/2024	1
Group Sample		Waste Water	II OII III OII		Commenced Date: 05/04/2024	l
Sample	rume	RO Permeate			Completed On : 11/04/2024	
Sample	Reference :	NA			Report Date : 11/04/2024	1
Sample		M/s.Hubert Env	iro care Sys	tems (P) Ltd.	Sample quantity : 2 Litres	
	C LOCULION	NA	C) 23.0 I	Humidity (%) :	56.0	
		Temperature (° IS 17614(Part-1		Humany (70) .	30.0	
Sampli S.No.	ng Method & Plan : Test Param		Units	Results	Test Method	TNPCB Limits
41	Ammonia as NH3		mg/l	BLQ (LOQ 0.1)	IS 3025 (Part 34) Clause 2.3 1988	5
42	Ammonical Nitrogen as	NH3-N	mg/l	BLQ (LOQ 0.1)	IS 3025 (Part 34) Clause 2.5 1988	50
43	Bio-Chemical Oxygen D days @27 ° C	and the state of t	mg/l	2.0	IS 3025 (Part 44) 1993	30
44	Boron as B		mg/l	BLQ (LOQ 0.1)	IS 3025 (Part 57) Clause 6 2021	2
45	Sodium as Na		mg/l	56.0	IS: 3025 (Part 45) Clause 5 1993	
46	Chemical Oxygen Dema	and (COD)	mg/l	16.0	IS 3025 (Part 58) 2006	250
47	Chloride as Cl-		mg/l	174.94	IS 3025 (Part 32) Clause 2 1988	1000
48	Cyanide as CN		mg/l	BLQ (LOQ 0.01)	IS 3025 Part 27 Clause 2 1986	0.2
49	Fluorides as F		mg/l	BLQ (LOQ 0.1)	APHA 23 rd Edn. 4500 D-F Spadns method: 2017	2
50	Free Residual Chlorine		mg/l	BLQ (LOQ 0.1)	IS 3025 (Part 26) Clause 5 2021	-
51	Hexavalent Chromium		mg/l	BLQ (LOQ 0.05)	IS 3025 (Part 52) Clause 6 2003	-
52	Oil and grease		mg/l	BLQ (LOQ 4.0)	IS: 3025 (Part 39) Clause 5 2021	10
53	pH value @ 25 ° C		-	7.35	IS 3025 (Part 11) Clause 2 2022	5.5 to 9.0
54	Phenolic compound		mg/l	BLQ (LOQ 0.01)	IS 3025 (Part 43) Clause 5 1992	1
1.				BLQ (LOQ 0.1)	APHA 23 rd Edn. 4500 P-B,D 2017	5



D.Anusuya Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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14410			TI	EST REPORT		: TC123102	ge : 6 of 5 4000016095F /052/050424
Name	of the Client	: M/s. TamilNadı	Petro Prod	lucts Ltd.,	1997 CHARLES CONTRACTOR (1)	: 050424233	
Addre	ess of the Client	: LAB Plant, Manali Express	High Way,	Manali, Chennai -			
Sample Sample Sample Sample	e Name e Mark e Reference e Drawn By le Location nmental Condition	 Pollution & Env Waste Water RO Permeate NA M/s.Hubert Env NA Temperature (° 	viro care Sy	stems (P) Ltd. Humidity (%) :	Commenced Date Completed On Report Date Sample quantity	: 11/04/2024 : 11/04/2024	4 4
	ing Method & Plan	: IS 17614(Part-1		1			
S.No.	Test Par		Units	Results	Test Metho	d	TNPCB Limits*
S.No.		ameters		Results BLQ (LOQ 0.1)	Test Metho IS:11624 198		TNPCB Limits*
56	Test Par	ameters	Units			36	TNPCB Limits* NA 1000
	Test Par Residual Sodium Car	ameters	Units mEq/L	BLQ (LOQ 0.1)	IS:11624 198	36 1se 4 1986	NA
56 57	Test Par Residual Sodium Car Sulphate as SO42-	ameters	Units mEq/L mg/l	BLQ (LOQ 0.1) 32.3	IS:11624 198 IS:3025 (Part 24) Clau	36 use 4 1986 use 2 1986	NA 1000
56 57 58	Test Par Residual Sodium Car Sulphate as SO42- Sulphide as S2-	ameters bonate	Units mEq/L mg/l mg/l	BLQ (LOQ 0.1) 32.3 BLQ (LOQ 1.0)	IS:11624 198 IS:3025 (Part 24) Clau IS 3025 (Part 29) Clau	36 1se 4 1986 1se 2 1986 1984	NA 1000 2 40°C at the point
56 57 58 59	Test Par Residual Sodium Car Sulphate as SO42- Sulphide as S2- Temperature	ameters bonate s @ 180° C	Units mEq/L mg/l mg/l °C	BLQ (LOQ 0.1) 32.3 BLQ (LOQ 1.0) 27.1	IS:11624 198 IS:3025 (Part 24) Clau IS 3025 (Part 29) Clau IS:3025 (Part 09)	36 1se 4 1986 1se 2 1986 1984 1984	NA 1000 2 40°C at the point of discharge

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

mg/l - Milligrams per liter, * - Marine Coastal Areas.

Remarks:- Treated Effluent Water as above parameters meets TNPCB Standards.

End of Report



D.Anusuya Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in

Laboratory Services Division

(Chemical & Biological Testing) **FSSAI Notified Laboratory** ISO 9001, 14001 & 45001 Certified.

TEST REPORT

Page: 1 of 1

			R	eport No.	: HECS/PE/052/050424/N
Name of the Client	: M/s. TamilNad	: M/s. TamilNadu Petro Products Ltd.,			: 050424233
			Sa	ampling Date	: 05/04/2024
Address of the Client	: LAB Plant,				
	Manali Expres	s High Way, Manali, (Chennai - 600 068		
Group	: Pollution & En	vironment	R	eceived Date	: 05/04/2024
Sample Name	: Waste Water		C	ommenced Dat	e: 05/04/2024
Sample Mark	: RO Permeate		C	ompleted On	: 11/04/2024
Sample Reference	: NA		R	eport Date	: 11/04/2024
Sample Drawn By	: M/s.Hubert En	viro care Systems (P)	Ltd. Sa	ample quantity	y 2 Litres
Sample Location	: NA				
Environmental Condition	: Temperature (°C): 32.0 Humid	ity (%) : 56.0		
Sampling Method & Plan	: IS 17614(Part-	10):2021			
S.No. Test	Parameters	Units	Results		Test Method

D'IAO'	A cot A di afficiero	Omis	Acsuits	I est Wiethod
Disciol	ine : Chemical			
1	Alphamethrin	mg/I.	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021
2	Cypermethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021
3	Deltamethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021
4	Permethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021
5	Mercury	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994
6	Lead	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994
7	Alpha Emitters	microcurie/ml	BLQ(LOQ 0.0000000001)	IS 14194 (Part-2)-1994
8	Beta emitters	microcurie/ml	BLQ(LOQ 0.0000000001)	IS 14194 (Part -1)-1994

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

End of Report



Jost -

D.Anusuya Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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	20		<u>test ri</u>		ULR Report N	
Name	of the Client	: M/s. TamilNa	du Petro Products Ltd	l.,	Sample I Sampling	
Addre	ess of the Client	: LAB Plant, Manali Expre	ss High Way, Manali,	Chennai - 600	068.	
Group		: Pollution & E	nvironment		Received	Date : 05/04/2024
Sample	Name	: Waste Water			Commer	nced Date: 05/04/2024
	Mark	: RO Reject			Complet	
ample	Reference	:NA			Report I	
Sample Enviror	Drawn By e Location nmental Condition ng Method & Plan	:NA	nviro care Systems (P (°C) : 32.0 Humi -10):2021			quantity : 2 Litres
S.No.	T	rameters	Units	Resu	ilts	Test Method
Discip	line : Chemical					
Pestic	ides					
1	Alachlor		mg/L	BLQ (LOQ	: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
2	Aldrin		mg/L	BLQ (LOQ	2: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
3	Alpha BHC		mg/L	BLQ (LOC): 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
4	Atrazine		mg/L	BLQ (LOC	2: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
5	Beta BHC		mg/L	BLQ (LOC	2: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
6	Butachlor		mg/L	BLQ (LOC	2: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
7	Chloropyrifos		mg/L	BLQ (LOC	2: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
8	Delta BHC		mg/L	BLQ (LOC	Q: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
9	Dieldrin		mg/L	BLQ (LOO	Q: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
10	Endosulfan alpha		mg/L	BLQ (LO	Q: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021



đ **D.Anusuya**

Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



Laboratory Services Division

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0.00000000	of the Client	: M/s. TamilNado : LAB Plant,	<u>TEST R</u>	U F d., S	JLR Report No. Sample ID No Sampling Date	
Group	Name		High Way, Manali vironment	H C	Received Date	Date: 05/04/2024
Sample Sample Sampl Enviror	e Reference Drawn By e Location nmental Condition ing Method & Plan	:NA			Report Date Sample quant	: 11/04/2024 tity : 2 Litres
S.No.	1	arameters	Units	Results		Test Method
11	Endosulfan beta		mg/L	BLQ (LOQ: 0.0	0001) HEC	SG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
12	Endosulfan sulfate		mg/L	BLQ (LOQ: 0.	0001) HEC	CSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
13	Ethion		mg/L	BLQ (LOQ: 0.	0001) HEC	CSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
14	Gamma BHC		mg/L	BLQ (LOQ: 0.	0001) HEC	CSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
15	Malathion		mg/L	BLQ (LOQ: 0.	0001) HEC	CSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
16	o,p-DDD		mg/L	BLQ (LOQ: 0.	0001) HEC	CSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
17	o,p-DDE		mg/L	BLQ (LOQ: 0.	0001) HEC	CSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
18	o,p-DDT		mg/L	BLQ (LOQ: 0.	0001) HEC	CSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
19	p,p'-DDD		mg/L	BLQ (LOQ: 0	0001) HEO	CSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
20	p,p'-DDE		mg/L	BLQ (LOQ: 0	.0001) HEO	CSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
21	p,p'-DDT		mg/L	BLQ (LOQ: 0	.0001) HE	CSG/INS/SOP/032 Issue No.:01 Is Date:01.03.2021



D.Anusuya **Deputy Quality Manager Authorized Signatory**

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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			<u>TEST R</u>	EPORT ULR Report	Page : 3 of 5 : TC1231024000016096F : HECS/PE/053/050424
Name	of the Client	: M/s. TamilNadu	Petro Products Lt	d., Sample Samplir	
Addre	ess of the Client	: LAB Plant, Manali Express	High Way, Manali	, Chennai - 600 068.	
Group		: Pollution & Env		Receive	
	e Name	: Waste Water			enced Date: 05/04/2024
	e Mark e Reference	: RO Reject : NA		Comple Report	ted On : 11/04/2024 Date : 11/04/2024
Sampl Enviro	e Drawn By e Location nmental Condition ing Method & Plan	: NA	iro care Systems (I C) : 32.0 Hum 0):2021	,	e quantity : 2 Litres
S.No.	Test Pa	arameters	Units	Results	Test Method
22	Parathion-methyl	(.P.) 1	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
23	Phorate		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
24	2,4-D		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issu Date:01.03.2021
25	Isoproturon		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
26	Malaoxon		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
27	Methyl Paraoxon		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
28	Methyl Parathion		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
29	Monocrotophos		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
30	Phorate Sulfone		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
31	Phorate Sulfoxide		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Iss Date:01.03.2021
	Arsenic		mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 Revision 5.4: 1994
32	Arsenic				



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D.Anusuya

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



Laboratory Services Division

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			<u>test re</u>		ULR Report Ņo.	Page : 4 of 5 : TC1231024000016096F : HECS/PE/053/050424
Name	of the Client	: M/s. TamilNadu l	Petro Products Ltd., San		Sample ID No	:050424234
		100 Mar 1 Mar 100 Mar 100 Mar	a 		Sampling Date	: 05/04/2024
Addres	ss of the Client	: LAB Plant, Manali Express H	ligh Way, Manali,	Chennai - 600 0	58.	
Group		: Pollution & Envir		Circinal 000 0	Received Date	: 05/04/2024
Sample Name : Waste Water				Commenced Da	te: 05/04/2024	
Sample		: RO Reject			Completed On	: 11/04/2024
	Reference	:NA			Report Date Sample quanti	11/04/2024
Sample Environ	Drawn By Location amental Condition ng Method & Plan	: M/s.Hubert Envir : NA : Temperature (°C : IS 17614(Part-10): 32.0 Humi			
S.No.	Test Par	ameters	Units	Result	s	Test Method
34	Chromium		mg/l	0.035	U	SEPA 200.8 Revision 5.4: 1994
35	Copper		mg/l	BLQ (LOQ:	0.1) U	SEPA 200.8 Revision 5.4: 1994
36	Nickel	-	mg/l	BLQ (LOQ:		SEPA 200.8 Revision 5.4: 1994
37	Selenium		mg/l	BLQ (LOQ:	0.1) U	SEPA 200.8 Revision 5.4: 1994
38	Zinc		mg/l	BLQ (LOQ	: 0.1) U	SEPA 200.8 Revision 5.4: 1994
39	Ammonia as NH3		mg/l	9.07	IS	3025 (Part 34) Clause 2.3 1988
40	Ammonical Nitrogen	as NH3-N	mg/l	7.49	IS	3025 (Part 34) Clause 2.5 1988
41	Bio-Chemical Oxyge days @27 ° C	n Demand(BOD) 3	mg/l	24.0		IS 3025 (Part 44) 1993
42	Boron as B		mg/l	BLQ (LOQ	0.1) I	S 3025 (Part 57) Clause 6 2021
43	Sodium as Na		mg/l	540.0	15	S: 3025 (Part 45) Clause 5 1993
44	Chemical Oxygen De	emand (COD)	mg/l	184.0		IS 3025 (Part 58) 2006
45	Chloride as Cl-		mg/l	1140.0))	S 3025 (Part 32) Clause 2 1988
46	Cyanide as CN		mg/l	BLQ (LOQ	0.01)	IS 3025 Part 27 Clause 2 1986
47	Fluorides as F		mg/l	BLQ (LOC	() 0.1) Al	PHA 23 rd Edn. 4500 D-F Spadn method: 2017
48	Free Residual Chlori	ne	mg/l	BLQ (LOC	2 0.1)	S 3025 (Part 26) Clause 5 2021
49	Hexavalent Chromiu	m as Cr6+	mg/l	BLQ (LOQ	0.05)	S 3025 (Part 52) Clause 6 2003
50	Oil and grease		mg/l	BLQ (LOC	() () () () () () () () () () () () () (S: 3025 (Part 39) Clause 5 2021
			-	5.93	1	IS 3025 (Part 11) Clause 2 2022
51	pH value @ 25 ° C					



D.Anusuya

Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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			TEST RE	EPORT		Page: 5 of 5	
Es,				ULR		: TC1231024000016096F	
	States.			Report	No.	: HECS/PE/053/050424	
Name of the Client : M/s. TamilNa		u Petro Products Ltd	l., Sample	ID No	:050424234		
				Sampli	ng Date	: 05/04/2024	
Addre	ess of the Client	: LAB Plant,	Wish Wise Wenness	Channel (00.0/0			
Group : Pollution & En			High Way, Manali,		ed Date	: 05/04/2024	
Sample	Mama	: Waste Water	ironment			te: 05/04/2024	
		: RO Reject			eted On	: 11/04/2024	
Sample Sample	Reference	: NA	Report Date			: 11/04/2024	
	Drawn By	: M/s.Hubert Env	viro care Systems (P)	.	e quantit	and the second sec	
Sample	Drawn By e Location	: M/s.Hubert Env : NA	viro care Systems (P)	.	le quantit	ty : 2 Litres	
Sample Sample	Drawn By e Location mental Condition	: NA		Ltd. Sampl	e quantii	and the second sec	
Sample Sample Environ	e Location	: NA	C): 32.0 Humi	Ltd. Sampl	e quantii	and the second sec	
Sample Sample Environ Samplin	e Location mental Condition ng Method & Plan	: NA : Temperature (°	C): 32.0 Humi	Ltd. Sampl	e quantii		
Sample Sample Environ Samplin S.No.	e Location mental Condition ng Method & Plan	: NA : Temperature (° : IS 17614(Part-1 arameters	C): 32.0 Humi 0):2021) Ltd. Sampl dity (%) : 56.0		ty : 2 Litres Test Method	
Sample Sample Environ Samplin S.No. 53	e Location nmental Condition ng Method & Plan Test Pa	NA Temperature (% IS 17614(Part-1 arameters te as P	C): 32.0 Humi 0):2021 Units	Ltd. Sampl dity (%) : 56.0 Results		ty : 2 Litres Test Method	
Sample Sample Environ Samplin S.No. 53 54	e Location numental Condition ng Method & Plan Test Pa Dissolved Phospha	NA Temperature (% IS 17614(Part-1 arameters te as P	C): 32.0 Humi 0):2021 Units mg/l) Ltd. Samp dity (%) : 56.0 Results 0.17	API	ty : 2 Litres Test Method IA 23 rd Edn. 4500 P-B,D 2017	
Sample Sample Environ Samplin S.No. 53 54 55	e Location mental Condition ng Method & Plan Test Pa Dissolved Phospha Residual Sodium C	NA Temperature (% IS 17614(Part-1 arameters te as P	C): 32.0 Humi 0):2021 Units mg/1 mEq/L	b Ltd. Sampl dity (%) : 56.0 Results 0.17 BLQ (LOQ 0.1)	API	Test Method HA 23 rd Edn. 4500 P-B,D 2017 IS:11624 1986	
Sample Sample Environ	e Location mental Condition ng Method & Plan Test Pa Dissolved Phospha Residual Sodium C Sulphate as SO42-	NA Temperature (% IS 17614(Part-1 arameters te as P	C): 32.0 Humi 0):2021 Units mg/l mEq/L mg/l	Ltd. Sample dity (%) : 56.0 Results 0.17 BLQ (LOQ 0.1) 606.13	API	Test Method HA 23 rd Edn. 4500 P-B,D 2017 IS:11624 1986 S:3025 (Part 24) Clause 4 1986	
Sample Sample Environ Samplin S.No. 53 54 55 55	e Location mental Condition ng Method & Plan Test Pa Dissolved Phosphar Residual Sodium C Sulphate as SO42- Sulphide as S2-	: NA : Temperature (° : IS 17614(Part-1 arameters te as P arbonate	C): 32.0 Humi 0):2021 Units mg/l mEq/L mg/l mg/l	Ltd. Sample dity (%) : 56.0 Results 0.17 BLQ (LOQ 0.1) 606.13 BLQ (LOQ 1.0)	API	Test Method HA 23 rd Edn. 4500 P-B,D 2017 IS:11624 1986 S:3025 (Part 24) Clause 4 1986 S:3025 (Part 29) Clause 2 1986	
Sample Sample Environ Samplin 53 54 55 55 56 57	e Location amental Condition ang Method & Plan Test Pa Dissolved Phosphar Residual Sodium C Sulphate as SO42- Sulphide as S2- Temperature	: NA : Temperature (° : IS 17614(Part-1 arameters te as P arbonate ds @ 180° C	C): 32.0 Humi 0):2021 Units mg/l mEq/L mg/l mg/l °C	Ltd. Sample dity (%) : 56.0 Results 0.17 BLQ (LOQ 0.1) 606.13 BLQ (LOQ 1.0) 27.1 27.1	API	Test Method HA 23 rd Edn. 4500 P-B,D 2017 IS:11624 1986 S:3025 (Part 24) Clause 4 1986 S:3025 (Part 29) Clause 2 1986 IS:3025 (Part 09) 1984	

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

mg/l - Milligrams per liter.

End of Report

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D.Anusuya Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in

Laboratory Services Division

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TEST REPORT

Page: 1 of 1

					Report No.	: HECS/PE/053/050424/N
Name	of the Client	: M/s. TamilNad	: M/s. TamilNadu Petro Products Ltd.,			: 050424234
					Sampling Date	: 05/04/2024
Addre	ss of the Client	: LAB Plant,				
		Manali Expres	s High Way, Manali	, Chennai - 600 0	68.	
Group		: Pollution & En			Received Date	: 05/04/2024
Sample	Name	: Waste Water			Commenced Date: 05/04/2024	
Sample		: RO Reject			Completed On	: 11/04/2024
	Reference	: NA			Report Date	: 11/04/2024
28	Drawn By	: M/s.Hubert En	ibert Enviro care Systems (P) Ltd.			ity : 2 Litres
	e Location	: NA				
	mental Condition	: Temperature (°C): 32.0 Hum	udity (%) : 56.0		
Samplin	ng Method & Plan	: IS 17614(Part-	10):2021			
S.No.	Test P	arameters	Units	Result	s	Test Method
Discip	line : Chemical					
1	A)phamethrin		mg/I	BLO (LOO: (00001) HEC	SG/INS/SOP/032 Issue No.:01 Issue

Disc	ipline : Chemical			
1	Alpl:amethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021
2	Cypermethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021
3	Deltamethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021
4	Permethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021
5	Mercury	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994
6	Lead	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994
7	Alpha Emitters	microcurie/ml	BLQ(LOQ 0.000000001)	IS 14194 (Part-2)-1994
8	Beta emitters	microcurie/ml	BLQ(LOQ 0.000000001)	IS 14194 (Part -1)-1994

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

mg/l - Milligrams per liter.

End of Report



D.Anusuya Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



Laboratory Services Division

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Name	e of the Client	: M/s. TamilNad		ST REPORT		
	ess of the Client	: LAB Plant,			Sampling Date : 05/04/2024	
			s High Way, N	/Ianali, Chennai	- 600 068.	
Group		: Pollution & En	vironment		Received Date : 05/04/2024	
	e Name	: Waste Water			Commenced Date: 05/04/2024	
	e Mark e Reference	: Raw Effluent : NA			Completed On : 11/04/2024 Report Date : 11/04/2024	
Sample	e Drawn By le Location	: M/s.Hubert En : NA	viro care Syst	ems (P) Ltd.	Sample quantity : 2 Litres	
Enviro	nmental Condition ing Method & Plan	: Temperature (° : IS 17614(Part-		Humidity (%) :	56.0	4
S.No.	Test Par	ameters	Units	Results	Test Method	TNPCB Limits *
Discip	bline : Chemical	-				
Pestic	ides					
1	Alachlor	E	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
2	Aldrin		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
3	Alpha BHC		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
4	Atrazine		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
5	Beta BHC	i.	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
6	Butachlor		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
7	Chloropyrifos		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
8	Delta BHC		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
9	Dieldrin		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
10	Endosulfan alpha		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent



D.Anusuya Deputy Quality Manager Authorized Signatory

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A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in

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o,p-DDT

p,p'-DDD

p,p'-DDE

p,p'-DDT



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			TE	ST REPORT		Pa	ge : 2 of 5
	And the				ULR	: TC123102	4000016097F
					Report No.	: HECS/PE/	/054/050424
Name	of the Client	: M/s. TamilNa	du Petro Prod	ucts Ltd	Sample ID No	: 050424235	
				,	Sampling Date	: 05/04/2024	1
Addre	ess of the Client	: LAB Plant,			F0		
		Manali Expres	ss High Way,	Manali, Chennai	- 600 068.		
Group		: Pollution & En	nvironment		Received Date	: 05/04/2024	1
Sample	Name	: Waste Water			Commenced Dat	e: 05/04/2024	ł
Sample	Mark	: Raw Effluent			Completed On	: 11/04/2024	ł
Sample	Reference	: NA			Report Date	: 11/04/2024	ļ
	Drawn By e Location	: M/s.Hubert En	nviro care Sys	tems (P) Ltd.	Sample quantit	y [:] 2 Litres	
Enviror	nmental Condition ng Method & Plan	: Temperature (: IS 17614(Part		Humidity (%)	: 56.0		2
S.No.	Test Pa	rameters	Units	Results	Test Meth	iod	TNPCB Limits *
11	Endosulfan beta	C S S I A D'ANGA ANA AN	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue Date:01.0		Absent
12	Endosulfan sulfate		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue Date:01.0		Absent
13	Ethion		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue Date:01.0		Absent
14	Gamma BHC		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue Date:01.0		Absent
15	Malathion		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue Date:01.0		Absent
16	o,p-DDD		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue Date:01.0		Absent
17	o,p-DDE		mg/L	BLQ (LOQ:	HECSG/INS/SOP/032	2 Issue No.:01	Absent



0.0001)

BLQ (LOQ:

0.0001)

BLQ (LOQ:

0.0001)

BLQ (LOQ:

0.0001)

BLQ (LOQ:

0.0001)

mg/L

mg/L

mg/L

mg/L

D.Anusuya

Deputy Quality Manager Authorized Signatory

Issue Date:01.03.2021

HECSG/INS/SOP/032 Issue No.:01

Issue Date:01.03.2021

Absent

Absent

Absent

Absent

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in



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			<u>TE</u>	ST REPORT		ge : 3 of 5 4000016097F /054/050424
Name	of the Client	: M/s. TamilNac	lu Petro Prod	ucts Ltd.,	Sample ID No : 050424235	
Addre	ess of the Client	: LAB Plant, Manali Expres	s High Way, I	Manali, Chennai -	Sampling Date : 05/04/2024	ļ
Group		: Pollution & Er	vironment		Received Date : 05/04/2024	k-
Sample	Name	: Waste Water			Commenced Date: 05/04/2024	L
Sample		: Raw Effluent			Completed On : 11/04/2024	
-	Reference	: NA			Report Date : 11/04/2024	
	Drawn By e Location	: M/s.Hubert Er	ivíro care Sys	tems (P) Ltd.	Sample quantity : 2 Litres	
	mental Condition	: NA : Temperature (000 - 22 0 I	Ummiditer (0/)	560	
	ng Method & Plan	: IS 17614(Part-		Humidity (%) :	50.0	
S.No.		rameters	Units	Results	Test Method	TNPCB Limits
22	Parathion-methyl		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
23	Phorate		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
24	2,4-D	488 HIPA CONTRACTOR AND	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
25	Isoproturon		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
26	Malaoxon		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
27	Methyl Paraoxon		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
28	Methyl Parathion		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
29	Monocrotophos		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
30	Phorate Sulfone		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
31	Phorate Sulfoxide		mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent



D.Anusuya

Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in

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	福克回						
	1000		TI	EST REPORT		Page	e: 4 of 5
14	ALC: NO				ULR : 1	U	000016097F
	ALL ALL				Report No. : I	IECS/PE/0	54/050424
Name	of the Client	: M/s. TamilNadu	Petro Prod	lucts Ltd.,	Sample ID No : 0	50424235	
					Sampling Date : 0	5/04/2024	
Addre	ess of the Client	: LAB Plant,					
-		Manali Express : Pollution & Env		Manali, Chennai - 60		5/04/2024	
Group	Manua	· Pollution & Env : Waste Water	ironment		Commenced Date: (
Sample Sample		: Raw Effluent				1/04/2024	
	Reference	: NA				1/04/2024	
Sample	Drawn By	: M/s.Hubert Env	iro care Sy	stems (P) Ltd.	Sample quantity : 2	Litres	
	e Location	: NA	2000.000.000.000.000.000.000.000.000.00				
	nmental Condition ng Method & Plan	: Temperature (° : IS 17614(Part-1		Humidity (%) : 56	5.0		2
S.No.	Test Pa	rameters	Units	Results	Test Metho	d	TNPCB Limit
32	Arsenic		mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 Revision	5.4: 1994	0.2
33	Cadmium		mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 Revision	n 5.4: 1994	2.0
34	Chromium		mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision	n 5.4: 1994	2.0
35	Copper		mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 Revision	n 5.4: 1994	3.0
36	Nickel		mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision	n 5.4: 1994	3.0
37	Selenium		mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 Revision 5.4: 1994		0.05
38	Zinc		mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994		1.5
39	Ammonia as NH3		mg/l	0.99	IS 3025 (Part 34) Clause 2.3 1988		5
40	Ammonical Nitroge	en as NH3-N	mg/l	0.82	IS 3025 (Part 34) Claus	e 2.5 1988	50
41	Bio-Chemical Oxygen Demand(BOD) 3 days @27 ° C		mg/l	8.0	IS 3025 (Part 44) 1993		30
42	Boron as B		mg/l	BLQ (LOQ 0.1)	IS 3025 (Part 57) Clau	ise 6 2021	2
43	Sodium as Na		mg/l	324.0	IS: 3025 (Part 45) Cla	use 5 1993	
44	Chemical Oxygen I	Demand (COD)	mg/l	56.0	IS 3025 (Part 58)	2006	250
45	Chloride as Cl-		mg/l	676.7	IS 3025 (Part 32) Clau	use 2 1988	-



D.Anusuya

Deputy Quality Manager Authorized Signatory

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in

Tel St. S. Philes



Laboratory Services Division

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			T	EST REPORT	ULR : TC12310 Report No. : HECS/P	age : 5 of 5)24000016097F E/054/050424
Name	of the Client	: M/s. TamilNa	du Petro Prod	ucts Ltd.,	Sample ID No :0504242. Sampling Date :05/04/20	
Addre	ess of the Client	: LAB Plant, Manali Expre	ss High Way,	Manali, Chennai -	, , , ,	24
Group		: Pollution & E	nvironment		Received Date : 05/04/20	24
Sample	Name	: Waste Water			Commenced Date: 05/04/20	24
Sample Sample	Mark Reference	: Raw Effluent : NA			Completed On : 11/04/20 Report Date : 11/04/20	
	Drawn By e Location	: M/s.Hubert E : NA	nviro care Sys	stems (P) Ltd.	Sample quantity : 2 Litres	
Enviror	nmental Condition ng Method & Plan	: Temperature : IS 17614(Part		Humidity (%) :	56.0	246
S.No.	Test Par	rameters	Units	Results	Test Method	TNPCB Limits *
46	Cyanide as CN		mg/l	BLQ (LOQ 0.01)	IS 3025 Part 27 Clause 2 1986	0.2
47	Fluorides as F		mg/l	BLQ (LOQ 0.1)	APHA 23 rd Edn. 4500 D-F Spadns method: 2017	5 2
48	Free Residual Chlori	ine	mg/l	BLQ (LOQ 0.1)	IS 3025 (Part 26) Clause 5 2021	-
49	Hexavalent Chromit	ım as Cr6+	mg/l	BLQ (LOQ 0.05)	IS 3025 (Part 52) Clause 6 2003	1
50	Oil and grease		mg/l	BLQ (LOQ 4.0)	IS : 3025 (Part 39) Clause 5 2021	10
51	pH value @ 25 ° C		-	7.13	IS 3025 (Part 11) Clause 2 2022	5.5 to 9.0
52	Phenolic compound		mg/l	BLQ (LOQ: 0.01)	IS 3025 (Part 43) Clause 5 1992	1
53	Dissolved Phosphate	e as P	mg/l	0.35	APHA 23 rd Edn. 4500 P-B,D 201	7 5
54	Residual Sodium Ca	rbonate	mEq/L	BLQ (LOQ 0.1)	IS:11624 1986	NA
55	Sulphate as SO42-		mg/l	252.6	IS:3025 (Part 24) Clause 4 1986	1000
56	Sulphide as S2-		mg/l	BLQ (LOQ 1.0)	IS 3025 (Part 29) Clause 2 1986	2
57	Temperature		°C	27.1	IS:3025 (Part 09) 1984	40°C at the point of discharge
58	Total dissolved solid	ls @ 180° C	mg/l	2054.0	IS 3025 (Part 16) 1984	-
59	Total Kjeldahl Nitro	gen as N	mg/l	1.26	IS 3025 (Part 34) Clause 5.3 1988	100
60	Total suspended soli	ids @ 105° C	mg/l	8.0	IS: 3025 (Part 17) 1984	100

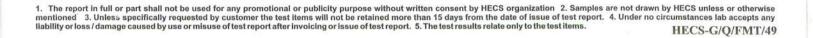
Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, °C - Degree Celsius,

mg/l - Milligrams per liter.

End of Report

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D.Anusuya Deputy Quality Manager Authorized Signatory



PUH

A-21, III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032. Ph: 42985555 / 43635555 Fax : 42985500 E-mail : labsales@hecs.in

Laboratory Services Division

(Chemical & Biological Testing) FSSAI Notified Laboratory ISO 9001, 14001 & 45001 Certified.

TEST REPORT

Pag	e : 1	l of 1

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1.1.1.

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S.No.	Test Par	ameters	Units	Results	Tost Math	he	TNDCD Limite	
	tal Condition tethod & Plan	: Temperature : IS 17614(Par		Humidity (%) : 5	56.0			
Sample Drav Sample Loo	cation	:M/s.Hubert E :NA	Inviro care Sy	stems (P) Ltd.	Sample quantit	y [:] 2 Litres		1 m
Sample Refe		: NA			Report Date	: 11/04/2024	1	
Sample Mar		: Raw Effluent			Completed On	: 11/04/2024	1	
Sample Nan	ne	: Waste Water			Commenced Dat	te: 05/04/2024	4	
Group		: Pollution & E	Invironment		Received Date	: 05/04/2024	4	
	r die ellent	Manali Expre		Manali, Chennai - 6	600 068.			
Address of	f the Client	: LAB Plant,			Sampling Date	: 05/04/2024	4	1
Name of the	he Client	: M/s. TamilNa	idu Petro Proc	lucts Ltd.,	Sample ID No	: 050424235	5	
					Report No.	: HECS/PE	/054/050424/N	

S.No.	Test Parameters	Units	Results	Test Method	TNPCB Limits *
Discip	line : Chemical				
1	Alphamethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
2	Cypermethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
3	Deltamethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
4	Permethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
5	Mercury	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 Revision 5.4: 1994	0.01
6	Lead	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994	0.1
7	Alpha Emitters	microcurie/ml	BLQ(LOQ 0.000000001)	IS 14194 (Part-2)-1994	0.0000001
8	Beta emitters	microcurie/ml	BLQ(LOQ 0.0000000001)	IS 14194 (Part -1)-1994	0.000001

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

End of Report



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D.Anusuya Deputy Quality Manager Authorized Signatory



ANNEXURE – 6

CORPORATE SOCIAL RESPONSIBILITY

Primary Health Care Centre is provided at Sadayankuppam Village, Kannampalayam & Seemavaram, Manali by AM Foundation on behalf of **Tamilnadu Petroproducts Limited** under its CSR project and Inaugurated.

















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