



KR.HSE.ENV.05. HSSE.HECCR/01/2025/EC No: J-11011/26/2013-IA II (I)
30.06.2026

To

The Additional Principal Chief conservator of Forests (C)
Ministry of Environment, Forest & Climate Change
4th Floor, E&F Wings, Kendriya sadan, Koramangala
Bangalore-560 034

Dear Sir,

Sub: Submission of Half yearly compliance report on Environmental Clearance issued by the Ministry of Environment, Forests and Climate Change (MoEF & CC)

Ref: MoEF&CC letter no. J-11011/26/2013-IA II (I) dated 12th May 2015 granting Environmental Clearance for Propylene Derivatives Petrochemical Project (PDPP) by Bharat Petroleum Corporation Limited, Kochi Refinery, Ambalamugal, Ernakulam District, Kerala:

Please find enclosed the compliance reports on the various conditions laid down by MoEF & CC, pertaining to the half year period from **1st October 2025 to 31st March 2026** for the said project.

Thanking you,

Very truly yours

For BPCL Kochi Refinery

Suresh K S

Dy. General Manager (HSE - Environment)

Encl: 1. Six Monthly Compliance Report

Cc:

- | | |
|---|---|
| 1. The Member Secretary
Central Pollution Control Board
Parivesh Bhawan
East Arjun Nagar
Delhi - 110 032 | 2. The Member Secretary
Kerala State Pollution Control Board
Plamoodu Junction
Pattom Palace
Thiruvananthapuram - 695 004 |
| 3. The Member Secretary (Industry -II), Ministry of Environment, Forest & Climate Change
Indira Gandhi Paryavaran Bhavan, Jorbagh Road, New Delhi - 110003 | |

पोस्ट बैग नं: 2, अम्बलमुगल - 682 302, एरणाकुलम जिला, केरल, दूरभाष: 0484 - 2722061 - 69 फैक्स: 0484 - 2720961 / 2721094
पंजीकृत कार्यालय: भारत भवन, 4 & 6, करीमभाय रोड, बेलार्ड इस्टेट, पी. बी. नं. 688 मुंबई - 400 001

Compliance Report of stipulated Environmental Clearance (EC) conditions for the
Propylene Derivatives Petrochemical Project (PDPP) of BPCL-Kochi Refinery
EC clearance - J-11011/26/2013-IA II (I) dated 12th May 2015.
1st October 2025 to 31st March 2026

Sl. No	Conditions	Status as on 31.03.2026
A.	SPECIFIC CONDITIONS	
1.	M/s BPCL shall comply with new standards/norms for Oil Refinery Industry and petrochemical industry notified under the Environment (Protection) Rules, 1986.	Complied. BPCL Kochi Refinery complies with the environmental standards applicable to the Oil Refinery and Petrochemical Industries notified under the Environment (Protection) Rules, 1986, as amended from time to time. The prescribed emission and effluent standards are monitored regularly, and the necessary pollution control systems are operated and maintained to ensure continued compliance.
2.	Continuous on-line stack monitoring for SO ₂ NO _x and CO of all the stacks shall be carried out. Low NO _x burners shall be installed.	There are no fired heaters or fired boilers in the project facility, Waste Incinerators installed in the complex are having low NO _x Burners. Stack analysers are commissioned, calibrated, and ensured to be in working condition, Continuous on-line stack monitoring is ensured.
3.	The emission standards prescribed by the MoEF under Environment (Protection) Act for petrochemical industry shall be strictly followed. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.	Complied. Stack emissions from the petrochemical units are monitored regularly and maintained within the prescribed standards under the Environment (Protection) Act, 1986. Pollution control systems are operated and maintained effectively, and appropriate corrective actions are taken in the event of any malfunction to ensure continued compliance before resuming normal operation. There are no fired process heaters /fired boilers in the PDPP Project. Two (2) Nos. of waste incinerators installed in the facility are designed to consume clean fuels like vaporized LPG/LNG. The incinerators are operating complying with the prescribed emission standards. Stack emissions are also monitored regularly.
4.	Leak Detection and Repair program shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves pipelines are required. Proper maintenance	Detailed leak detection and repair (LDAR) program for monitoring and repair of VOC leak points, leak detection and repair survey are already identified, the frequency of monitoring of leaks and schedule of repairs of leak will be as per CPCB guidelines for LDAR program/OISD 224 guidelines.



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1st October 2025 to 31st March 2026

Sl. No	Conditions	Status as on 31.03.2026
	of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations.	Plant-wise PM check schedule for the periodic preventive monitoring of the Rotary Equipment is followed. All storage tank breathing vents are routed to incinerator as per design. Gas detectors are already provided at strategic locations. To reduce fugitive emissions of volatile organic compounds from the complex. 1. Seal less canned pumps are installed in organic liquid services 2. Special gland packing material provided in valves to reduce fugitive / VOC emissions from glands. Hydrocarbon, toxic gases, and VOC detectors are installed in the complex. Total number of 351 gas detectors and 8 VOC detectors are installed in the complex.
5.	Total SO ₂ emissions after implementation of PDPP including IREP SHALL NOT EXCEED 1561.4 Kg/hr.	The fuel for firing in Incinerators is vaporized LPG / LNG with very low sulphur content. The SO₂ emissions after implementation of PDPP including IREP is not exceeding 1561.4 kg/hr. Note: It has been revised after next project (MSBP) as <u>1579 kg/hr.</u>
6.	Continuous monitoring system for VOCs at all important places/areas shall be ensured. When monitoring results indicate above the permissible limits, effective measures shall be taken immediately.	Photo ionization detectors (fixed VOC meters) installed at eight (8) important locations in and around the PDPP units / other facilities for continuous monitoring of VOCs. These detector readings are being monitored, and generation of alarm is configured in case of detection at ppm level.
7.	Ambient air quality monitoring stations (PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , H ₂ S, mercaptan, non-methane-HC and Benzene) shall be set up in the complex in consultation with Kerala State Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modelling exercise to represent short term GLCs.	One AAQMS for continuous monitoring of SO₂, NO-NO₂, NO_x, NH₃, CO, OZONE, HC, H₂S, MERCAPTAN, VOC, PM₁₀ (SPM), PM_{2.5} (RSPM) and meteorological data etc. is already installed at the location approved by Kerala State Pollution Control Board. Continuous monitoring is ensured. The same is being connected to display board which is positioned facing public road for visibility.



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1st October 2025 to 31st March 2026

Sl. No	Conditions	Status as on 31.03.2026
8.	Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry on 16 th November 2009 and trend analysis w.r.t. past monitoring results shall also be carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in the project area.	Ambient air quality data monitoring has started from new AAQMS installed in the complex along with existing AAQMS stations available around the refinery. Manual air quality monitoring is being done by NABL accredited lab and the same is ensured with NAAQES standards.
9.	The gaseous emission from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Besides, acoustic enclosure/silencer shall be installed wherever noise levels exceed the limit.	Complied. Gaseous emissions from DG sets are designed to be dispersed through stack heights as per CPCB standards. DG sets are operated only on extreme emergency conditions. Acoustic enclosure is installed for DG set.
10.	Total freshwater requirement from Kochi Refinery for PDPP shall not exceed 493 m ³ /hr and prior permission shall be obtained from the concerned agency. No ground water shall be used.	The total freshwater requirement will be less than 493 m ³ /hr which is within the total sanctioned quantity of 3083.3 m ³ /hr for integrated refinery complex by Govt. of Kerala.
11.	Industrial effluent shall be treated in the effluent treatment plant. Treated effluent shall be recycled/reused in the existing cooling tower. As proposed, high COD effluent shall be incinerated. Water quality of treated effluent shall be monitored regularly. Online water monitoring system shall be installed for important parameters.	Industrial effluents are incinerated or treated in ETP, and majority of the treated effluent is recycling through RO based DM plant and if any balance quantity, disposing through existing outlets. Also, online water monitoring facility available at existing refinery effluent outlet. Water streams quality measuring analysers have been installed.
12.	Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.	Complied. Oil catchers/oil traps have been provided at all potential oil-contaminated locations in the rain/storm water drainage system. These are regularly inspected, cleaned, and maintained to prevent oil contamination of storm water and nearby water bodies

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Sl. No	Conditions	Status as on 31.03.2026
13.	Incinerator designed shall be as per CPCB guidelines.	Two incinerators installed within the PDPP complex to ensure final effluent /emission quality as per CPCB guidelines. The stacks are well connected to CPCB site and statutory monthly monitoring is being done and reporting to KSPCB.
14	The Company should strictly comply with the rules and guidelines under Manufacture, Storage, and Import of Hazardous Chemicals Rules, 1989 as amended in October 1994 and January 2000. Hazardous waste should be disposed of as per Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and amended time to time.	Stipulations under these both rules are being strictly complied. Disposal of Hazardous waste ensured complying with Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules. Reports are regularly submitting to the KSPCB.
15	Proper oil spillage prevention management plan shall be prepared to avoid spillage/leakage of oil/petroleum products and ensure regular monitoring.	Oil spillage prevention is taken care at the design stage itself. Adequate facilities are made to prevent or contain oil spillage / storm water contamination for PDPP complex.
16	The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).	Complied with the points mentioned in CREP which is applicable to PDPP project.
17	To prevent fire and explosion of oil and gas facility, potential ignition sources shall be kept to a minimum and adequate separation distance between potential ignition sources and flammable materials shall be in place.	PDPP facility is designed as per OISD & PESO guidelines and the facilities satisfy separation distances as specified by OISD standards 118 /other applicable and relevant conditions of Petroleum rules. PESO approval for commissioning of process units and related facilities are obtained, PESO storage license for all applicable products and intermediates obtained based on completion and site inspection by PESO/OISD officials.



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18	All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented. Accordingly, provision of budget to be kept.	All recommendations mentioned in rapid risk assessment report implemented. Quantitative risk assessment also conducted, and all recommendations implemented at applicable stages of project. Emergency Response and Disaster Management Plan prepared including scenarios identified during risk assessment report.
19	All the issues raised, and commitment made during the public hearing/consultation meeting held on 23 rd December 2014 shall be satisfactorily implemented. Accordingly, provision of budget to be kept.	BPCL-KR has complied with commitment made during the public hearing/consultation meeting held on 23 rd December 2014.
20	At least 2% of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.	Complied
21	Green belt shall be developed at least in 40 acres of land in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Thick greenbelt with suitable plant species shall be developed around unit. Selection of plant species shall be as per the CPCB guidelines.	Green belt development completed for the project. All plant species are in growing stage. One more green park developed and named as ECO PARK in the PDPP area.
22	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied. All necessary infrastructure, labour camps, medical facilities arranged during construction, pre-commissioning activities.



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B.	GENERAL CONDITIONS:	
1.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and any other statutory authority.	BPCL-KR is adhering to the stipulations made by KSPCB, State Govt. and other statutory bodies. Consent to Operate obtained from KSPCB, Consent No: PCB/HO/EKM-II/ICO-R/05/2022, dated 31/03/2022.
2.	No further expansion or modification in the project shall be carried out without prior approval of the Ministry of Environment & Forests. 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 to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Complied. No expansion or modification requiring prior approval of MoEF&CC has been undertaken without obtaining the requisite Environmental Clearance. Any proposed deviation or alteration from the approved project proposal is referred to MoEF&CC for necessary approval, wherever applicable.
3	The project authorities must strictly comply with the rules and regulations under manufacture, Storage and import of Hazardous Chemical Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained, wherever applicable.	For this project, BPCL-KR has obtained necessary approvals from Kerala Factories & Boilers, Chief Controller of Explosives, Fire Safety Inspectorate etc. wherever required. BPCL-KR is complied with the rules and regulations under manufacture, Storage and import of Hazardous Chemical Rules, 2000. PESO prior approval was obtained for overall plot plan, overall area classification, fire fighting water layout, equipment layout of individual facilities inside the complex vide. Letter P 5(2)496 /Refinery - dated 07-12-2016. Process units commissioning approval obtained from PESO vide following letters, P 5(2)496 /Refinery II dated 04-08-2020, P 5(2)496 /Refinery II dated 16-12-2020, and P 5(2) 496 /Refinery II dated 28-01-2020 PESO License for storage was obtained as applicable under Storage License numbers P/HQ/KL/15/1336 (P485172) & P/HQ/KL/15/1337 (P485168). Kerala Factories and Boilers had accorded permit to construct the facility vide. Permit number 109/2019 Doc No. T3/10811/2019/F&B/R Dis, Dated 08-05-2019 After completion, Factory license was amended by Kerala Factories and Boilers including PDPP project facilities. Amendment of factory license including

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		PDPP project, Permit No.109/2019; Amendment letter dated 16-Sept-2020. NOC was obtained from Kerala Fire and Rescue department for the facility. D1-7904/2016 - Dtd.14.12.2018 from regional fire office Ernakulam, Kerala.
4	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 EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night-time).	Noise control measures including acoustic hoods and silencers, enclosures on all sources of noise generation are installed as per design of the facility. Regular monitoring of Noise levels at boundary areas conducted by dedicated team to ensure the same. Also, one continuous noise monitoring station installed at peripheral boundary area as per the recommendation of KSPCB. The overall noise level is limited at the boundary as prescribed under EPA rules/ SPCB advisory.
5	A separate Environmental Management Cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	BPCL-KR is having a separate Environment Management section to carry out environmental management and monitoring functions. We have well equipped Centralized Quality Control Laboratory for PDPP project related monitoring activities.
6	Adequate funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures and shall be used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.	BPCL-KR has earmarked adequate funds for environment pollution control measures. The funds are utilized for installing, operating, and maintaining 1. Conventional and Submerged type, liquid, and gaseous waste incinerators online to meet final effluent quality. 2. AAQMS station and monitoring facilities online 3. VOC meters for continuous monitoring of volatile emissions. 4. LDAR (Leak Detection and Repair) program is also operational in the complex. Greenbelt development and maintenance activities are also ensured.
7	The Regional Office of this Ministry/Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical	Six monthly compliance reports being submitted by BPCL-KR at stipulated interval.

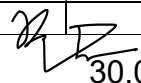
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	interpretation shall be submitted to them regularly.	
8	A copy of clearance letter shall be sent by the proponent to concern Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body, and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the Company by the proponent.	BPCL-KR has complied with this condition. Copies of clearance letter was sent to all local bodies.
9	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely, PM10, PM2.5, SO2, NOx, HC (Methane of Non-methane), VOCs (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Six monthly compliance reports being submitted without fail by BPCL-KR after receipt of the Environmental Clearance for the PDPP project. The same being sent to the Regional Office of MoEFCC and uploaded in the BPCL website. The criteria pollutant levels namely, PM10, PM2.5, SO2, NOx, HC, VOCs being monitored utilizing a combination of - Approx.350 Nos. of HC/Hydrogen /other detectors installed /continuously monitored in the complex. - 8 Nos. of Photo ionization detectors installed for continuous VOC detection - AAQMS station at location approved by KSPCB. - Regular AAQ monitoring is being conducted and report submitted to SPCB on monthly basis. Display of ambient air quality at a convenient location near the main gate of the company in the public domain is commissioned.
10	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry/CPCB/SPCB shall monitor the stipulated conditions.	Six monthly compliance reports were submitted by BPCL-KR after receipt of the Environmental Clearance for the PDPP project. The same was sent to the Regional Office of MoEF&CC and uploaded in the BPCL website.

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11	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the Project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.	Complied. Environmental statement (Form – V) is being submitted before Sept. 30 th of every year.
12	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 and may also be seen at website of the Ministry of Environment and Forests at http://envfor.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 the copy of the same shall be forwarded to the Regional Office.	BPCL-KR has complied with this condition.
13	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Investment clearance from Board obtained on 03.12.2014 and land development started subsequently project has been commissioned.


30.06.2026

Air Quality data for the period 1st APRIL 2025 to 30th SEPTEMBER 2025

AAQMS - CISF Quarters (Old W/L) area

Parameter	SO2	H2S	NOx	NH3	CO	Benzene	Methane	NMHC	PM 10	PM 2.5
Units	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	PPM	PPM	µg/m3	µg/m3
Limit	Daily 80 Annual 50	No limits are prescribed	Daily 80 Annual 40	Daily 400 Annual 100	8 hrs - 2 4 hrs - 4	Daily 05 Annual 05	No limits are prescribed		Daily 100 Annual 60	Daily 60 Annual 40
Apr 2025	16.0	2.1	39.6	28.4	0.9	0.0	0.0	0.0	52.5	32.3
May 2025	13.4	2.2	49.8	36.6	1.0	0.0	0.0	0.0	38.2	22.1
June 2025	15.6	1.6	38.4	27.7	1.3	0.0	0.0	0.0	43.0	16.9
July 2025	21.2	1.773	18.9	19.9	1.0	0.0	0.02	0.5	42.1	19.3
Aug 2025	5.23	0.99	11.59	9.63	0.39	0.00	0.00	0.03	45.41	21.91
Sept 2025	4.2	1.2	22.7	0.1	1.7	0.0	0.0	1.1	46.9	23.2

AAQMS - Jwalagiri Colony area

Parameter	SO2	H2S	NOx	NH3	CO	Benzene	Methane	NMHC	PM 10	PM 2.5
Units	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	PPM	PPM	µg/m3	µg/m3
Limit	Daily 80 Annual 50	No limits are prescribed	Daily 80 Annual 40	Daily 400 Annual 100	8 hrs - 2 4 hrs - 4	Daily 05 Annual 05	No limits are prescribed		Daily 100 Annual 60	Daily 60 Annual 40
Apr 2025	35.2	0.3	14.1	2.7	0.9	0.0	0.0	0.0	71.6	29.5
May 2025	29.2	0.2	14.0	2.5	1.0	0.0	0.0	0.0	32.9	21.8
June 2025	10.8	0.6	16.5	4.1	1.1	0.0	0.003	0.0	26.4	17.6
July 2025	25.3	0.70	15.3	10.5	1.1	NA	0.02	0.0	27.3	25.3
Aug 2025	19.16	2.82	17.30	8.12	1.01	NA	0.02	0.00	28.90	19.60
Sept 2025	22.6	3.2	15.8	4.3	1.6	0.0	0.0	0.0	33.4	22.3

AAQMS - DHDS Chalikkara Gate

Parameter	SO2	H2S	NOx	NH3	CO	Benzene	Methane	NMHC	PM 10	PM 2.5
Units	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	PPM	PPM	µg/m3	µg/m3
Limit	Daily 80 Annual 50	No limits are prescribed	Daily 80 Annual 40	Daily 400 Annual 100	8 hrs - 2 4 hrs - 4	Daily 05 Annual 05	No limits are prescribed		Daily 100 Annual 60	Daily 60 Annual 40
Apr 2025	39.7	14.4	22.2	0.0	0.8	0.0	0.0	0.0	42.5	30.1
May 2025	16.1	1.8	4.3	0.1	0.7	0.0	0.0	0.0	38.8	21.6
June 2025	22.3	3.9	10.2	0.8	0.8	0.0	0.0	0.0	29.5	16.3
July 2025	27.6	7.09	4.6	0.1	1.2	NA	0.02	0.0	30.8	17.3
Aug 2025	28.31	10.59	16.55	1.76	0.40	0.22	0.00	1.04	35.21	19.51
Sept 2025	12.01	21.46	22.9	8.02	0.47	0.013	0.01	0.013	41.98	19.8


30.06.2026

Air Quality data for the period 1 st APRIL 2025 to 30 th SEPTEMBER 2025										
AAQMS - Marketing Office area										
Parameter	SO2	H2S	NOx	NH3	CO	Benzene	Methane	NMHC	PM 10	PM 2.5
Units	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	PPM	PPM	µg/m3	µg/m3
Limit	Daily 80 Annual 50	No limits are prescribed	Daily 80 Annual 40	Daily 400 Annual 100	8 hrs - 2 4 hrs - 4	Daily 05 Annual 05	No limits are prescribed		Daily 100 Annual 60	Daily 60 Annual 40
Apr 2025	32.0	1.6	27.0	4.7	1.0	0.0	0.0	0.0	54.9	22.8
May 2025	34.5	2.4	23.2	6.0	1.2	0.0	0.0	Faulty	23.2	23.2
June 2025	35.7	3.2	24.4	6.8	2.1	0.0	0.0	0.0	31.0	22.0
July 2025	28.5	1.98	22.8	4.8	1.0	0.0	0.0	0.0	31.9	22.9
Aug 2025	25.3	4.79	21.8	8.8	0.3	0.0	0.0	0.0	34.0	21.9
Sept 2025	20.6	5.1	19.0	9.5	0.4	0.0	0.0	0.0	36.0	20.4
AAQMS - NHT CCR - 01 South side										
Parameter	SO2	H2S	NOx	NH3	CO	Benzene	Methane	NMHC	PM 10	PM 2.5
Units	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	PPM	PPM	µg/m3	µg/m3
Limit	Daily 80 Annual 50	No limits are prescribed	Daily 80 Annual 40	Daily 400 Annual 100	8 hrs - 2 4 hrs - 4	Daily 05 Annual 05	No limits are prescribed		Daily 100 Annual 60	Daily 60 Annual 40
Apr 2025	5.6	1.4	0.65	0.10	0.18	NA	0.0	0.90	51.6	27.3
May 2025	5.0	2.1	7.9	1.5	0.0	NA	0.0	1.3	67.1	12.8
June 2025	4.6	1.9	0.7	0.1	0.20	NA	0.0	0.7	53.6	23.6
July 2025	6.21	2.72	30.1	1.89	0.46	NA	1.47	0.32	38.31	16.42
Aug 2025	6.10	2.20	26.2	1.23	0.32	NA	0.37	0.45	33.20	18.20
Sept 2025	6.1	2.7	0.0	0.0	0.40	NA	1.3	0.20	42.1	26.3
AAQMS - PDPP side										
Parameter	SO2	H2S	NOx	NH3	CO	Benzene	Methane	NMHC	PM 10	PM 2.5
Units	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	PPM	PPM	µg/m3	µg/m3
Limit	Daily 80 Annual 50	No limits are prescribed	Daily 80 Annual 40	Daily 400 Annual 100	8 hrs - 2 4 hrs - 4	Daily 05 Annual 05	No limits are prescribed		Daily 100 Annual 60	Daily 60 Annual 40
Apr 2025	18.5	0.0	10.9	0.32	1.6	0.0	0.0	0.0	24.9	41.1
May 2025	17.4	0.0	8.2	3.3	1.1	0.0	0.0	0.0	31.5	18.2
June 2025	19.5	0.0	3.7	7.0	1.6	0.0	0.019	0.0	19.8	12.6
July 2025	23.0	0.71	68.9	4.6	1.4	0.0	0.02	0.0	33.8	18.3
Aug 2025	27.2	0.00	10.1	3.3	0.8	0.0	0.02	0.0	31.7	16.9
Sept 2025	34.1	0.0	7.3	2.4	0.8	0.0	0.0	0.0	27.2	9.2


30.06.2026

Water discharge Quality data for the period 1st APRIL 2025 to 30th SEPTEMBER 2025

Parameter	pH	BOD	COD	Oil & Grease	Sulphide	TSS	Phenol
Spec. Limit	6-8.5	15	125	5	0.5	20	0.35
Unit	**	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
April - 2025	7.34	14.2	43.53	3.16	0.40	16.97	0.17
May – 2025	7.4	11.6	35	3.1	0.40	13	19.3
June - 2025	7.3	11.5	35	2.99	0.40	16.1	0.13
July - 2025	7.3	12	36	2.95	0.40	15	0.13
Aug - 2025	7.36	11.45	34.32	2.89	0.40	13.4	0.13
Sept - 2025	7.36	11.15	34.33	2.86	0.40	16.3	0.13

 30.06.2026



**Bharat Petroleum Corporation Limited
Kochi Refinery**

FORM 4

[See rules 6(5), 13(8), 16(6) and 20(2)]

FORM FOR FILING ANNUAL RETURNS

[To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period April to March]

Statement for the Period 2025 -26

1. Name and address of facility	BPCL Kochi Refinery Post Bag No.2, Ambalamugal, Kochi, Kerala
2. Authorisation No. (CTO) and date of Issue	1. PCB/HO/EKM-II/ICO-R/03/2022 dated 05.02.2022, for the IREP units. 2. PCB/HO/EKM-2/ICO-R/07/2023 dated 08.08.2023, for the Old Refinery units 3. KSPCB/ER1/ICO/10039049/2023 dated 23/09/2023 for the Shore Tank Farm project. 4. KSPCB/ER2/ICO/10034459/2023 dated 18/10/2023 for Heat Traced Pipeline project. 5. PCB/HO/EKM-II/ICO-R/05/2022, dated 31/03/2022 for PDPP 6. PCB/HO/EKM-II/ICO-R/06/2022 dated 07/04/2022 for Motor Spirit Block project.
7. Name of the occupier / authorised person and full address with telephone no., fax number and e-mail	Chacko. M Jose Executive Director - BPCL Kochi Refinery Post Bag No.2, Ambalamugal, Kochi Ph: 0484-2722061 Extn: 1102 Fax: 0484 2721095
8. Production during the year (product wise), wherever applicable:	Total Feed charge 17656031 MT



**Bharat Petroleum Corporation Limited
Kochi Refinery**

Part A - To be filled by hazardous waste generators.

Part - A	To be filled by Hazardous category wise		
1	Total quantity Generated: Waste Category wise		
Sl. No:	Hazardous Waste item	Schedule & Category	Quantity in (MT)
1	PFCCU / FCCU Cat. Fines (On wet basis)	1-4.2	533.05
2	Oily Sludge: (Tank sludge) / shutdown sludge	1-4.1	578.885
3	Spent Charcoal	1- 4.2	28.38
4	Spent catalyst & Alumina Balls	1-4.2	81.51
5	Spent Resin from DM plant	**	12.47
6	FCCU & ARU spent clay	1-4.5	264.19
7	Contaminated Insulation wool	1-5.2	351.98
8	Soiled Sulphur waste	III- H4.1	344.55
9	Sulphur Guard N HGU / Chloride Guard	1-4.2	17.6
10	Poly propylene / poly Amide Filter element	1-22.2	31.03
11	Empty Chemical bags / drums	1-33.1	56.49
12	Non -Spec Acrylic Acid Polymer	1-22.2	228.55
13	Flue gas Contaminated Refractory Material	1-4.2	19.53
14	Bio-remediated sludge	**	92.77
15	Chemical / Oil Sludge from ETP	1-35.3	8373.82
Total (MT)			11014.805

** Not Classified as Hazardous waste



**Bharat Petroleum Corporation Limited
Kochi Refinery**

Part - A (2)	Quantity Dispatched		
	To Disposal Facility (TSDF)		
Sl. No:	Hazardous Waste item	Schedule & Category	Quantity in MT
1	PFCCU / FCCU Cat. Fines (On wet basis)	1-4.2	533.05
2	Oily Sludge: (Tank sludge) / shutdown sludge	1-4.1	578.885
3	Spent Charcoal	1- 4.2	28.38
4	Spent catalyst & Alumina Balls	1-4.2	81.51
5	Spent Resin from DM plant	**	12.47
6	FCCU & ARU spent clay	1-4.5	264.19
7	Contaminated Insulation wool	1-5.2	351.98
8	Soiled Sulphur waste	III- H4.1	344.55
9	Sulphur Guard N HGU / Chloride Guard	1-4.2	17.6
10	Poly propylene / poly Amide Filter element	I-22.2	31.03
11	Empty Chemical bags / drums	I-33.1	56.49
12	Non -Spec Acrylic Acid Polymer	I-22.2	228.55
13	Flue gas Contaminated Refractory Material	1-4.2	19.53
14	Bio-remediated sludge	**	92.77
	TOTAL		2640.985

Part - A (3)	Quantity Dispatched		
	To Recycler or Re-processor		
Sl. No:	Hazardous Waste item	Schedule & Category	Quantity in (MT)
1	NIL	N A	0.00
	TOTAL		0.00



**Bharat Petroleum Corporation Limited
Kochi Refinery**

Part - A	Quantity Dispatched		
(4)	To Others		
Sl. No:	Hazardous Waste item	Schedule & Category	Quantity in (MT)
1	NIL	N A	0
TOTAL			0

Part - A	Quantity Dispatched		
(5)	Consumed in-house / Storage		
Sl. No:	Hazardous Waste item: Re-processed in-house	Schedule & Category	Quantity in MT
1	Chemical / Oil Sludge from ETP to Delayed Coker Unit (DCU)	1-35.3	8373.82
TOTAL			8373.82
1	Quantity in storage at the end of the year	NA	0

Part B.

To be filled by Treatment, storage, and disposal facility operators -----N. A

1. Total quantity received -
2. Quantity in stock at the beginning of the year -
3. Quantity treated -
4. Quantity disposed in landfills as such and after treatment -
5. Quantity incinerated (if applicable) -
6. Quantity processed other than specified above -
7. Quantity in storage at the end of the year -

Part C.

To be filled by recyclers or co-processors or other users. -----N. A

1. Quantity of waste received during the year -
 - a. Domestic sources
 - b. imported (if applicable)
2. Quantity in stock at the beginning of the year -
3. Quantity recycled or co-processed or used -
4. Quantity of products dispatched (wherever applicable) -

5. Quantity of waste generated -
 6. Quantity of waste disposed -
 7. Quantity re-exported (wherever applicable)
 8. Quantity in storage at the end of the year
-

Signature of the Occupier or Authorized person of the Organization



Suresh K S

Dy. General Manager – HSE (Environment)

Date : 29.06.2026

Place : Ambalamugal



QUALITY CONTROL DEPARTMENT
BPCL-KOCHI REFINERY, AMBALAMUGAL

BOREWELL WATER TEST REPORT

Bore well Water-16

Date of Sample: 10.02.2026

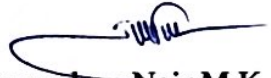
Date of Testing: 13.02.2026

KR. TECH.QC.26. BWEL.WATR

SI No	Test Parameters	Unit	Method	Result	Acceptable limit
1	pH	-	IS 3025 (P:11)	7.3	6.5 – 8.5
2	Oil	mg/L	IS 3025 (P:39)	Nil	nil
Metals					
3	Silver (as Ag)	mg/L	IS13428 Annex J	BDL (MDL=0.005)	0.1 (Max)
4	Aluminium (as Al)	mg/L	IS 3025 (P:55)	BDL(MDL=0.002)	0.03 (Max)
5	Boron (as B)	mg/L	IS 3025 (P:57)	BDL(MDL=0.01)	0.5 (Max)
6	Barium (as Ba)	mg/L	IS13428 Annex F	BDL(MDL=0.01)	0.7 (Max)
7	Calcium (as Ca)	mg/L	IS 3025 (P:40)	19	75 (Max)
8	Cadmium (as Cd)	mg/L	IS 3025 (P:41)	BDL(MDL=0.001)	0.003 (Max)
9	Chromium (as Cr)	mg/L	IS 3025 (P:52)	BDL(MDL=0.01)	0.05 (Max)
10	Copper (as Cu)	mg/L	IS 3025 (P:42)	BDL(MDL=0.01)	0.05 (Max)
11	Iron (as Fe)	mg/L	IS 3025 (P:53)	0.09	0.3 (Max)
12	Magnesium (as Mg)	mg/L	IS 3025 (P:46)	2.9	30 (Max)
26	Manganese (as Mn)	mg/L	IS 3025 (P:59)	BDL(MDL=0.01)	0.1 (Max)
13	Nickel (as Ni)	mg/L	IS 3025 (P:54)	BDL(MDL=0.01)	0.02 (Max)
14	Molybdenum (as Mo)	mg/L	IS 3025 (P:02)	BDL (MDL=0.002)	0.07 (Max)
15	Lead (as Pb)	mg/L	IS 3025 (P:47)	BDL(MDL=0.01)	0.01 (Max)
16	Zinc (as Zn)	mg/L	IS 3025 (P:49)	0.02	5 (Max)
17	Arsenic (as As)	mg/L	IS 3025 (P:37)	BDL(MDL0.005)	0.01 (Max)
18	Mercury (as Hg)	mg/L	IS 3025 (P:48)	BDL(MDL0.0001)	0.001(Max)
19	Selenium (as Se)	mg/L	IS 3025 (P:56)	BDL(MDL=0.001)	0.1 (Max)
20	Antimony (as Sb)	mg/L	APHA:3113B	BDL(MDL=0.001)	Max0.1

BDL: Below Detection Limit

MDL: Minimum Detection Limit


Jayendran Nair M K
Manager (Quality Control)



**QUALITY CONTROL DEPARTMENT
BPCL-KOCHI REFINERY, AMBALAMUGAL**

BOREWELL WATER TEST REPORT

Bore well Water-26

Date of Sample: 09.01.2026

Date of Testing: 12.01.2026

KR. TECH.QC.26. BWEL.WATR

Sl No	Test Parameters	Unit	Method	Result	Acceptable limit
1	pH	-	IS 3025 (P:11)	7.2	6.5 – 8.5
2	Oil	mg/L	IS 3025 (P:39)	Nil	nil
Metals					
3	Silver (as Ag)	mg/L	IS13428 Annex J	BDL (MDL=0.005)	0.1 (Max)
4	Aluminium (as Al)	mg/L	IS 3025 (P:55)	BDL(MDL=0.002)	0.03 (Max)
5	Boron (as B)	mg/L	IS 3025 (P:57)	BDL(MDL=0.01)	0.5 (Max)
6	Barium (as Ba)	mg/L	IS13428 Annex F	BDL(MDL=0.01)	0.7 (Max)
7	Calcium (as Ca)	mg/L	IS 3025 (P:40)	24	75 (Max)
8	Cadmium (as Cd)	mg/L	IS 3025 (P:41)	BDL(MDL=0.001)	0.003 (Max)
9	Chromium (as Cr)	mg/L	IS 3025 (P:52)	BDL(MDL=0.01)	0.05 (Max)
10	Copper (as Cu)	mg/L	IS 3025 (P:42)	BDL(MDL=0.01)	0.05 (Max)
11	Iron (as Fe)	mg/L	IS 3025 (P:53)	0.14	0.3 (Max)
12	Magnesium (as Mg)	mg/L	IS 3025 (P:46)	2.7	30 (Max)
26	Manganese (as Mn)	mg/L	IS 3025 (P:59)	BDL(MDL=0.01)	0.1 (Max)
13	Nickel (as Ni)	mg/L	IS 3025 (P:54)	BDL(MDL=0.01)	0.02 (Max)
14	Molybdenum (as Mo)	mg/L	IS 3025 (P:02)	BDL (MDL=0.002)	0.07 (Max)
15	Lead (as Pb)	mg/L	IS 3025 (P:47)	BDL(MDL=0.01)	0.01 (Max)
16	Zinc (as Zn)	mg/L	IS 3025 (P:49)	0.03	5 (Max)
17	Arsenic (as As)	mg/L	IS 3025 (P:37)	BDL(MDL0.005)	0.01 (Max)
18	Mercury (as Hg)	mg/L	IS 3025 (P:48)	BDL(MDL0.0001)	0.001(Max)
19	Selenium (as Se)	mg/L	IS 3025 (P:56)	BDL(MDL=0.001)	0.1 (Max)
20	Antimony (as Sb)	mg/L	APHA:3113B	BDL(MDL=0.001)	Max0.1

BDL: Below Detection Limit

MDL: Minimum Detection Limit


Jayendran Nair M K
 Manager (Quality Control)



QUALITY CONTROL DEPARTMENT
BPCL-KOCHI REFINERY, AMBALAMUGAL

BOREWELL WATER TEST REPORT

Bore well Water-12

Date of Sample: 28.01.2026

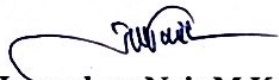
Date of Testing: 31.01.2026

KR. TECH.QC.26. BWEL.WATR

Sl No	Test Parameters	Unit	Method	Result	Acceptable limit
1	pH	-	IS 3025 (P:11)	6.9	6.5 – 8.5
2	Oil	mg/L	IS 3025 (P:39)	Nil	nil
Metals					
3	Silver (as Ag)	mg/L	IS13428 Annex J	BDL (MDL=0.005)	0.1 (Max)
4	Aluminium (as Al)	mg/L	IS 3025 (P:55)	BDL(MDL=0.002)	0.03 (Max)
5	Boron (as B)	mg/L	IS 3025 (P:57)	BDL(MDL=0.01)	0.5 (Max)
6	Barium (as Ba)	mg/L	IS13428 Annex F	BDL(MDL=0.01)	0.7 (Max)
7	Calcium (as Ca)	mg/L	IS 3025 (P:40)	18	75 (Max)
8	Cadmium (as Cd)	mg/L	IS 3025 (P:41)	BDL(MDL=0.001)	0.003 (Max)
9	Chromium (as Cr)	mg/L	IS 3025 (P:52)	BDL(MDL=0.01)	0.05 (Max)
10	Copper (as Cu)	mg/L	IS 3025 (P:42)	BDL(MDL=0.01)	0.05 (Max)
11	Iron (as Fe)	mg/L	IS 3025 (P:53)	0.11	0.3 (Max)
12	Magnesium (as Mg)	mg/L	IS 3025 (P:46)	3.0	30 (Max)
26	Manganese (as Mn)	mg/L	IS 3025 (P:59)	BDL(MDL=0.01)	0.1 (Max)
13	Nickel (as Ni)	mg/L	IS 3025 (P:54)	BDL(MDL=0.01)	0.02 (Max)
14	Molybdenum (as Mo)	mg/L	IS 3025 (P:02)	BDL (MDL=0.002)	0.07 (Max)
15	Lead (as Pb)	mg/L	IS 3025 (P:47)	BDL(MDL=0.01)	0.01 (Max)
16	Zinc (as Zn)	mg/L	IS 3025 (P:49)	0.03	5 (Max)
17	Arsenic (as As)	mg/L	IS 3025 (P:37)	BDL(MDL=0.005)	0.01 (Max)
18	Mercury (as Hg)	mg/L	IS 3025 (P:48)	BDL(MDL=0.0001)	0.001(Max)
19	Selenium (as Se)	mg/L	IS 3025 (P:56)	BDL(MDL=0.001)	0.1 (Max)
20	Antimony (as Sb)	mg/L	APHA:3113B	BDL(MDL=0.001)	Max0.1

BDL: Below Detection Limit

MDL: Minimum Detection Limit


Jayendran Nair M K
Manager (Quality Control)



QUALITY CONTROL DEPARTMENT
BPCL-KOCHI REFINERY, AMBALAMUGAL

BOREWELL WATER TEST REPORT

Bore well Water-44

Date of Sample: 07.11.2025

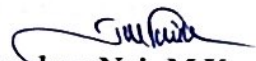
Date of Testing: 10.11.2025

KR. TECH.QC.26. DRINK.WATR

Sl No	Test Parameters	Unit	Method	Result	Acceptable limit
1	pH	-	IS 3025 (P:11)	6.9	6.5 – 8.5
2	Oil	mg/L	IS 3025 (P:39)	nil	nil
Metals					
3	Silver (as Ag)	mg/L	IS13428 Annex J	BDL (MDL=0.005)	0.1 (Max)
4	Aluminium (as Al)	mg/L	IS 3025 (P:55)	BDL(MDL=0.002)	0.03 (Max)
5	Boron (as B)	mg/L	IS 3025 (P:57)	BDL(MDL=0.01)	0.5 (Max)
6	Barium (as Ba)	mg/L	IS13428 Annex F	BDL(MDL=0.01)	0.7 (Max)
7	Calcium (as Ca)	mg/L	IS 3025 (P:40)	20	75 (Max)
8	Cadmium (as Cd)	mg/L	IS 3025 (P:41)	BDL(MDL=0.001)	0.003 (Max)
9	Chromium (as Cr)	mg/L	IS 3025 (P:52)	BDL(MDL=0.01)	0.05 (Max)
10	Copper (as Cu)	mg/L	IS 3025 (P:42)	BDL(MDL=0.01)	0.05 (Max)
11	Iron (as Fe)	mg/L	IS 3025 (P:53)	0.12	0.3 (Max)
12	Magnesium (as Mg)	mg/L	IS 3025 (P:46)	1.9	30 (Max)
26	Manganese (as Mn)	mg/L	IS 3025 (P:59)	BDL(MDL=0.01)	0.1 (Max)
13	Nickel (as Ni)	mg/L	IS 3025 (P:54)	BDL(MDL=0.01)	0.02 (Max)
14	Molybdenum (as Mo)	mg/L	IS 3025 (P:02)	BDL (MDL=0.002)	0.07 (Max)
15	Lead (as Pb)	mg/L	IS 3025 (P:47)	BDL(MDL=0.01)	0.01 (Max)
16	Zinc (as Zn)	mg/L	IS 3025 (P:49)	0.03	5 (Max)
17	Arsenic (as As)	mg/L	IS 3025 (P:37)	BDL(MDL0.005)	0.01 (Max)
18	Mercury (as Hg)	mg/L	IS 3025 (P:48)	BDL(MDL0.0001)	0.001(Max)
19	Selenium (as Se)	mg/L	IS 3025 (P:56)	BDL(MDL=0.001)	0.1 (Max)
20	Antimony (as Sb)	mg/L	APHA:3113B	BDL(MDL=0.001)	Max0.1

BDL: Below Detection Limit

MDL: Minimum Detection Limit


Jayendran Nair M K
Manager (Quality Control)



QUALITY CONTROL DEPARTMENT
BPCL-KOCHI REFINERY, AMBALAMUGAL

BOREWELL WATER TEST REPORT

Bore well Water-31

Date of Sample: 11.10.2025

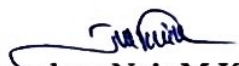
Date of Testing: 13.10.2025

KR. TECH.QC.26. DRINK.WATR

Sl No	Test Parameters	Unit	Method	Result	Acceptable limit
1	pH	-	IS 3025 (P:11)	7.4	6.5 – 8.5
2	Oil	mg/L	IS 3025 (P:39)	Nil	nil
Metals					
3	Silver (as Ag)	mg/L	IS13428 Annex J	BDL (MDL=0.005)	0.1 (Max)
4	Aluminium (as Al)	mg/L	IS 3025 (P:55)	BDL(MDL=0.002)	0.03 (Max)
5	Boron (as B)	mg/L	IS 3025 (P:57)	BDL(MDL=0.01)	0.5 (Max)
6	Barium (as Ba)	mg/L	IS13428 Annex F	BDL(MDL=0.01)	0.7 (Max)
7	Calcium (as Ca)	mg/L	IS 3025 (P:40)	22	75 (Max)
8	Cadmium (as Cd)	mg/L	IS 3025 (P:41)	BDL(MDL=0.001)	0.003 (Max)
9	Chromium (as Cr)	mg/L	IS 3025 (P:52)	BDL(MDL=0.01)	0.05 (Max)
10	Copper (as Cu)	mg/L	IS 3025 (P:42)	BDL(MDL=0.01)	0.05 (Max)
11	Iron (as Fe)	mg/L	IS 3025 (P:53)	0.09	0.3 (Max)
12	Magnesium (as Mg)	mg/L	IS 3025 (P:46)	2.8	30 (Max)
26	Manganese (as Mn)	mg/L	IS 3025 (P:59)	BDL(MDL=0.01)	0.1 (Max)
13	Nickel (as Ni)	mg/L	IS 3025 (P:54)	BDL(MDL=0.01)	0.02 (Max)
14	Molybdenum (as Mo)	mg/L	IS 3025 (P:02)	BDL (MDL=0.002)	0.07 (Max)
15	Lead (as Pb)	mg/L	IS 3025 (P:47)	BDL(MDL=0.01)	0.01 (Max)
16	Zinc (as Zn)	mg/L	IS 3025 (P:49)	0.04	5 (Max)
17	Arsenic (as As)	mg/L	IS 3025 (P:37)	BDL(MDL=0.005)	0.01 (Max)
18	Mercury (as Hg)	mg/L	IS 3025 (P:48)	BDL(MDL=0.0001)	0.001(Max)
19	Selenium (as Se)	mg/L	IS 3025 (P:56)	BDL(MDL=0.001)	0.1 (Max)
20	Antimony (as Sb)	mg/L	APHA:3113B	BDL(MDL=0.001)	Max0.1

BDL: Below Detection Limit

MDL: Minimum Detection Limit


Jayendran Nair M K
Manager (Quality Control)