

**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTH ZONE BENCH
AT CHENNAI**

Original Application No 19 of 2013 (SZ) (THC)

Meenavargal Membattu Sangam,
Represented By Its President,
Royapuram K.R. Selvaraj kumar
97/2, S N Chetty Street
Royapuram, Chennai – 600 013

..... Applicant

Vs

1. The Chief Secretary
Government of Tamil Nadu
New Secretariat
Chennai]
2. The State Of Tamil Nadu ,
Represented By Its
Secretary to Government,
Industries Department,
New Secretariat
Chennai]
3. The District Collector,
Thiruvallur]
4. The Chairman
Tamil Nadu Pollution Control Board
76, Mount Salai, Guindy
Chennai – 600 032]
5. M/s Manali Petrochemical Limited
Having its principal office at
Ponneri High Road
Chennai – 600 068]
6. Kothari Petrochemicals Limited,
Thiruvottiyur-Ponneri High Road,
Manali, Chennai-600 068
Represented by its
Vice President Operations
Mr. P. Premapiriyam]

.....Respondents 1 to 6

**OBJECTIONS FILED BY 6TH RESPONDENT VIZ KOTHARI
PETROCHEMICALS LIMITED**

For KOTHARI PETROCHEMICALS LIMITED


Authorised Signatory

TO THE FINAL REPORT OF JOINT COMMITTEE DT.28.10.2020, FILED BY
CPCB

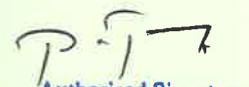
I, P. Premapiriyar, aged 40 years, son of Mr. B. Parthiban, having office at S.Nos.1/2B, 33/5, Sathangadu Village, Tiruvottiyur - Ponneri High Road, Manali, Chennai-600 068, do hereby solemnly affirm and state as follows:

1. I am the Vice President Operation of the 6th Respondent namely Kothari Petrochemicals Limited [hereinafter referred to as "KPL"/ 6th Respondent] . I am conversant with the facts of the case and am able and competent to swear this affidavit on behalf of the 6th Respondent.

2. The 6th Respondent has filed an Impleading Application IA No 123 of 2020 on 27.11.2020 in the above matter and the same was ordered by this Hon'ble Tribunal vide order dt 23.03.2021 and KPL was impleaded as 6th Respondent in this OA No 19 of 2013 and also as 8th Respondent and 9th Respondent in connected OA No 248 of 2016 and OA No 224 of 2016 respectively. In the said Order this Hon'ble Tribunal has directed this Respondent also to file their objections. KPL /6th Respondent wishes to place its objections to the said Final Report dt 28.10.2020 of the Joint Committee filed by Central Pollution Control Board [herein after referred to as "JC Report"]

3. It is submitted that on 4th March 2020, KPL factory was inspected by a Joint Committee constituted by this Hon'ble Tribunal, after fixing up through a phone call. At the time of inspection, KPL was informed that certain proceedings are pending before this Hon'ble Tribunal against Manali Petrochemical Limited (herein after referred to as "MPL") and another Company namely Tamilnadu Petroproducts Limited (herein after referred to as "TPL") and in the said proceedings, a Joint Committee has been appointed to inspect and report. KPL informed to the inspection team that they are not party to the proceedings before this Hon'ble Tribunal. However KPL, was informed that pipeline to discharge the treated effluent from all three units namely MPL, TPL and KPL is one and the same and the said pipeline has been installed by MPL, the inspection is carried in respect of KPL also along with MPL and TPL.

For KOTHARI PETROCHEMICALS LIMITED


Authorised Signatory

4. KPL submits that on 5th March 2020, the sampling team of the Joint Committee visited its factory and took the RO reject sample at the KPL's discharge point into the pipeline as well as the air sample from the discharge emission in CPP stack. The said Joint Committee also witnessed the online data transmission to air care and water care centers of the Pollution Control Boards and did not observe anything violative of the norms. The committee also did not point out any issues to KPL, at the time of inspection and sampling on 4th March 2020 and 5th March 2020.

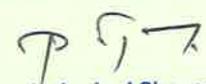
5. KPL submits that no show cause notices were issued, prior to inspection on 4th March 2020. In the original proceedings this Hon'ble Tribunal also did not issue any notice to KPL, for the reason that KPL was not a party to any of the above proceedings.

6. Since no observation was pointed out by the Committee to KPL at the time of inspection and since the RO reject (treated trade effluent) samples are periodically analysed by the 5th Respondent herein and further since the data is being transmitted by KPL to the air and water care center's and since KPL is not a party to the above proceedings, KPL was of the view that the Committee would not have rendered any observation or dealt with about KPL in the Report. Further immediately after the inspection, Pandemic – Covid – 19 broke out and lock down was announced by the Government and KPL also had to shut its factory from 24.03.2020 to 23.04.2020.

7. Thereafter it was reliably learnt by KPL, that the Joint committee has dealt about KPL and also has recorded certain observations against KPL and as such it had become necessary for KPL to implead itself in the above proceedings and thus filed the IA No 123 of 2020 before this Hon'ble Tribunal, as stated supra. JC Report reveals that the Joint Committee has recommended an interim compensation of Rs 24 lakhs on KPL and KPL is aggrieved by such levy and filing these objections to JC Report.

8. The 6th Respondent manufactures Polybutene at its factory situated at S.Nos.1/2B, 33/5, Sathangadu Village, Tiruvottiyur - Ponneri High Road, Manali, Chennai – 600 068. The manufacturing capacity of its factory is 24000 metric tonne per annum. The raw material required for manufacturing the finished

For KOTHARI PETROCHEMICALS LIMITED


Authorised Signatory

product interalia is Petroleum gases and other gaseous hydrocarbons (Poly butylene feed stock) supplied by Chennai Petroleum Corporation Limited and other sources. For the manufacturing process power is also generated by the 6th Respondent through a separate co-generation power Plant (herein after referred to as "CPP") which has been established in its factory at Manali.

9. The 6th Respondent has obtained consent to operate under the provision of Water (Prevention and Control of Pollution) Act, 1974 (herein after referred to as "**Water Act**") for its manufacturing plant and the co-generation power Plant. The said consent interalia authorises the 6th Respondent to discharge trade effluent and sewages. Similarly the 6th Respondent also has obtained consent under the provision of Air (Prevention and Control of Pollution) Act, 1981 (herein after referred to as "**Air Act**") for its manufacturing Plant and the co-generation power Plant. The said consent interalia authorises the 6th Respondent to operate both the plants and make discharges of emission from the stacks/chimneys. All the consent issued to the 6th Respondent are valid upto 31st March 2023 and copies of the same have been filed with IA No 123 of 2020

10. KPL's trade effluent are treated through the HRCC, Ultra Filtration and thereafter it is sent through three (3) stage Reverse Osmosis ["RO"] Process in its factory. The permeate water from the RO- 01, RO-2 and RO-3 is collected and recycled back to process plant and the Final RO-03 reject water called as "RO Reject" are disposed to Marine disposal. The said effluent treatment unit has been established by 6th Respondent at a cost of Rs:2.5 Crore/- .

11. The 6th Respondent discharges its treated effluent viz RO Reject into sea through a common marine pipeline established by MPL. KPL is permitted to pump its RO reject through the existing marine pipeline of MPL. KPL discharges into the common pipeline, very less quantity of treated effluent i.e RO Reject in terms of volume when compared to MPL and the other user of the common marine pipeline viz TPL. The said pipeline has been established by MPL at its own cost for discharging MPL's trade effluent into the marine. By virtue of an Agreement between 6th Respondent and MPL titled as "Agreement for usage of treated effluent pipeline" dated 29th June 2011 , 6th Respondent is also permitted to pump its treated effluent viz RO reject through the common marine pipeline on

For KOTHARI PETROCHEMICALS LIMITED


Authorised Signatory

mutually agreed commercial terms and conditions as contained in the said agreement.. The said agreement is in force as on date.

12. It is submitted that apart from the above sums expended on ETP and usage of common pipeline etc., the 6th Respondent has promptly complied with the recommendations as and when made by the Authorities and has incurred the following expenditure of Rs.27,72,761/- towards implementing the said recommendations given from time to time as detailed below :

| SL.No. | Analyser | Installation Month | Value In Rs. |
|--------|---|--------------------|--------------|
| 1 | Effluent Analyser - BOD, COD TSS Analyser | Feb-18 | 1239000 |
| 2 | PH Analyser | Jan-16 | 100000 |
| 3 | Magnetic Flow meter | Jan-16 & Sep-20 | 283761 |
| 4 | Emission Analyser - Sox, Nox, CO Analyser | Jan-16 | 950000 |
| 5 | SPM Analyser | Jan-16 | 200000 |
| Total | | | 2772761/- |

13. KPL's unit is very small and it's production capacity is 2000 metric tone/month of Polybutene and discharges an average quantity of 30-40 KL of RO reject into the common marine pipeline per day after treating the same, which is periodically tested by Tamil Nadu Pollution Control Board (herein after referred to as "TNPCB") and the discharge point and stacks are all connected with online monitoring system with data transfer to the servers established by CPCB, TNPCB and water care center with remote calibration facility.

14. The findings of the JC Report pertaining to KPL are extracted hereunder:

(i) At Page No.2, Point No.2 of JC Report, under the heading Analysis results of the sample collected in individual units, it is stated as follows :

"In the committee meeting held on 4.3.2020, it was decided to collect samples at the inlet and outlet of ETPs of all the four units and requested all units to discharge the treated wastewater at same time. Accordingly, on 6.3.2020 samples were collected at the inlet & outlet of ETP and also instant readings of the flow were noted"

For KOTHARI PETROCHEMICALS LIMITED


Authorized Signatory

(ii) At Page No.4, Para No.2 of JC Report, it is stated as follows :-

“M/s. Kothari Petrochemicals Limited:

| Parameter | Inlet | Outlet | Marine disposal standards |
|--|-------|-------------|---------------------------|
| pH | 8.0 | 7.2 | 5.5-9.0 |
| TSS mg/L | 09 | 47 | 100 |
| COD mg/L | 36 | 150 | 250 |
| BOD mg/L | 03 | 9.4 | 100 |
| Fluoride mg/L | 0.65 | 1.05 | 15 |
| O&G mg/L | -- | BDL | 20 |
| Hexavalent Chromium mg/L | BDL | BDL | 1.0 |
| Sulphate mg/L | 179 | 1739 | 1000 |
| Free ammonia(as NH ₃) mg/L | 1.6 | 1.1 | 05 |
| Ammonia as N mg/L | 21.9 | 91.1 | 50 |
| Phenols mg/L | 0.02 | BDL | 5.0 |
| Petroleum Hydrocarbons mg/L | -- | BDL | -- |

From the above analysis results, it shows that except sulphate and ammonical nitrogen, remaining parameters are meeting the prescribed standards. But the sulphate and ammonical nitrogen is found within the limit after confluence of treated effluent from all other industry. Since the unit is discharging RO reject, percent reduction could not be evaluated.

During the time of sample collection, flow was found to be 3.6 cubic meter/ hour. Hence, total amount of treated effluent discharged in to the sea will be 86.4 cubic meter/ day. Based on flow, overall BOD load dumped in to the sea will be 0.8 kg/day.”

(iii) At Page No.8, Point No.5 of Joint Committee Report, under the heading Environmental Compensation Calculation it is stated as follows :

“M/s Kothari Petro Chemicals Ltd., exceeded the norms of discharge for the parameter sulphate and Ammonical nitrogen which is 1739 mg/l & 91.1 mg/l against the standard norms 1000 mg/l & 50 mg/l respectively. After mixing with other industrial treated effluent, it reaches the standard norms before discharge into sea.

Moreover, the Particulate Emission (PM) of CPP boiler is measured as 51.8 mg/Nm³ against the standard 50 mg/Nm³.

For KOTHARI PETROCHEMICALS LIMITED


Authorised Signatory

Considering the above, environmental compensation is calculated using Pollution Index Formula ($EC = PI * N * R * S * LF$)

PI = Pollution Index, RED category industry (PI = 80)

R = Rupees Factor (R = 250)

S = Scale of Operation, Large Scale (S = 1.5)

LF = Location Factor, CEPI Area (LF = 2)

N= Number of days, (N = 40 days) date of committee sampling 06.03.2020 to date of TNPCB sampling 15.05.2020 (compliance). The industry was not in operation during 24.03.2020 to 23.04.2020 due to COVID19 pandemic situation, so this period was not considered for calculation.

$EC = 80 * 40 * 250 * 1.5 * 2 = Rs. 24,00,000 = Rs 24 lakhs.$

The interim compensation calculated for the period of 40 days is Rs 24 Lakhs."

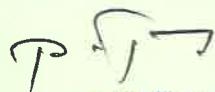
15. The above findings furnished by Joint Committee pertain to samples collected on a particular day namely 06.03.2020. It is pertinent to submit that KPL is not a party to the above proceedings at the time of collection of samples or at the time of filing of the JC Report before this Hon'ble Tribunal.

16. The Joint Committee has stated that Sulphate found in the RO Reject treated discharge of KPL is in excess of marine disposal standards i.e Inlet sample (effluent before treatment) on 06.03.2020 is found to be normal and within the limits. However the Outlet sample (RO Reject/ After treatment) on 06.03.2020 is found to be in excess in marine disposal standards by 739 mg/L. Similarly the Ammonia as Nitrogen is found in Inlet sample on 06.03.2020 to be normal and within the limits. However the Outlet sample on 06.03.2020 is found to be in excess in marine disposal standards by 41.1 mg/L.

17. It is submitted that all other main parameters like pH, TSS, COD, chromium, phenol etc are found to be well within the limit in the Inlet and Outlet of Effluent Treatment Plant of KPL.

18. However there seem to be a slight variation of certain milligrams in respect of Sulphate and Ammonia on that particular day i.e 06.03.2020 as alleged by the Joint Committee. In this regard it is submitted that said sampling results are erroneous and cannot be taken as yardstick to conclude the same are not within the limits. The Inlet (effluent prior to treatment) led into the treatment

For KOTHARI PETROCHEMICALS LIMITED


Authorized Signatory

plant is very much in the permissible limit even according to the Joint Committee viz Sulphate and Ammonia are within the permitted limits in the Inlet of KPL . Only in the process of treatment and that too in the particular day on 06.03.2020 the said two parameters are allegedly found to be marginally in excess by the Joint Committee.

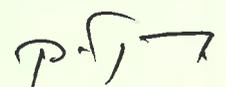
19. It is also submitted that apart from TNPCB, KPL also monitors the parameters through a third party accredited lab and the test report furnished by said accredited lab prior to 06.03.2020 and post 06.03.2020 are well within the prescribed limit and same are filed herewith as Annexure- 1. It is admitted in JC Report that w.e.f 15.5.2020, KPL is in compliance of said two parameter Sulphate and Ammonia. Even now the samplings are periodically tested by TNPCB and the same are found to be in order. Hence it is strictly submitted that based on sudden sampling done on 06.03.2020 it cannot be stated that Sulphate and Ammonia are in excess than the prescribed limits.

20. The other observation made by Joint Committee is that Particulate Emission ("PM") of CPP Boiler is marginally in excess of 1.8mg/Nm³. Even the said test has been conducted on the same day i.e 06.03.2020. For PM exceedance, JC Report has considered KPL's CPP plant as a thermal power plant category and calculated the PM with Oxygen content 6% as basis in the stack outlet. Usually, KPL won't check the oxygen in their stack emission. KPL is in the petrochemical category, and they have a combined stack for 20 Tonnes Per Hour ("TPH") Husk boiler (CPP), TP10 (TP means Thermopac , and 8 TPH Husk fire boiler, and the prescribed parameters have complied properly. The Reports pertaining to the same before 06.03.2020 and after 06.03.2020 are filed herewith as Annexure- 2

21. The Whole fallacy in JC Report is based on the sample test conducted on 06.03.2020, the committee has assumed the same continued till 15.05.2020, except for the lockdown period of 24.03.2020 to 23.04.2020 for about 31 days. The said assumption and calculation is highly arbitrary and inappropriate and unjustified.

22. Even as per JC Report the sampling made by TNPCB on 15.05.2020 at KPL is found to be in order and hence those above said 3 parameters are within the prescribed limit. Hence even according to Joint Committee there is no

For KOTHARI PETROCHEMICALS LIMITED



Authorised Signatory

deviation or excess of those 3 parameters from 15.05.2020. The Joint Committee has also found that KPL factory was not in operation during the lockdown from 24.03.2020 to 23.04.2020 and assuming that parameter which marginally exceed on 06.03.2020 would continue even after the reopening of the factory from 24.04.2020 to 15.05.2020 is highly arbitrary and has no basis or reason whatsoever.

23. Without testing on any day during 24.04.2020 (re-opening day after COVID lock down) to 15.05.2020 (21 days) and also from 07.03.2020 to 23.03.2020 (16 days), to come to a conclusion that the said parameters would exceed the limits is highly arbitrary and unjust. Everyday's quantity of effluent discharge depends upon capacity of operation and production of the plant and labour present and raw materials available and so many other factors. Every day, the discharge may not be the same in quantity. Based on so called exceedance of limit on particular day, it cannot be found that such limits would have exceeded for other days also . Hence even on this score, levy of compensation for 40 days is highly arbitrary and unjust

24. Further even assuming for a moment without admitting that said two parameters have exceeded at the discharge outlet of KPL into common pipe line as per JC Report, they seem to be in compliance after mixing with MPL's treated effluent and at the discharge point into Sea .Hence there cannot be any violation or excess in normal standards into Sea. The relevance is only at the point of discharge into Sea and not into common pipe line. Hence even on this score there cannot be any levy of compensation on KPL.

25. It is respectfully submitted that KPL is strict in compliance of all applicable standards stipulated by TNPCB in respect of all parameters not only the above said 3 parameters i.e Sulphate, Ammonia and PM.

26. It is further submitted that pursuant to the directions of this Hon'ble Tribunal, CPCB has also filed a Status Report dt 18.3.2021 and the same states that all parameters are within the prescribed norms and this 6th Respondent has not exceeded any prescribed parameters .

27. The 6th Respondent provides employment for about 200 persons directly and indirectly, who are dependent on the 6th Respondent for their livelihood. The

For KOTHARI PETROCHEMICALS LIMITED

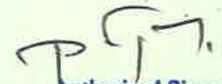

Authorised Signatory

6th Respondent is also prompt in making GST payments and has paid around Rs.49 crore as GST alone for the financial year for 2018-2019, apart from other taxes and duties.

28. This 6th Respondent has not violated any of the pollution norms and the Pollution Control Board periodically Analyses the Ro Reject (treated trade effluent) of the 6th Respondent. This 6th Respondent has made out a strong case for dropping of the said proposed compensation and the balance of convenience also lies in their favour. The 6th Respondent would be put to irreparable loss and severe hardship if the said compensation is not waived. No prejudice would be caused to any of the Respondents if the compensation recommended is set aside by this Hon'ble Tribunal. In the light of the above, this 6th Respondent states that such proposed compensation is arbitrary and baseless as submitted supra and hence prays this Hon'ble Tribunal may be pleased to set aside the said proposed compensation.

In the light of the above, it is therefore prayed that this Hon'ble Tribunal may be pleased to reject and set aside the proposed compensation of Rs 24 lakhs, as recommended by the Joint Committee in its Final Report dt. 28.10.2020 and pass such orders as this Hon'ble Tribunal may be pleased in the facts and circumstances of the case and thereby render justice.

For **KOTHARI PETROCHEMICALS LIMITED**


Authorised Signatory

Solemnly affirmed at Chennai

Before Me

on this the 16th day of April 2021

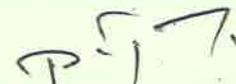
and signed his name in my presence.

Advocate : Chennai

Verification

I, P. Premapiriyam, aged 40 years, son of Mr. B. Parthiban, do hereby state that what is stated in paragraphs 1 to 28 mentioned above are as per the records of the KPL and are true and correct to the best of my knowledge, belief and information and I believe to be true.

For **KOTHARI PETROCHEMICALS LIMITED**


Authorised Signatory

Dated at Chennai on this the 16th day of April 2021

Respondent No.6

ORIGINAL



GLens Innovation Labs Pvt Ltd.

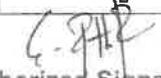
TEST REPORT

Report No : EN20080008-01 **Report Date** : 19 Aug 2020
Customer Name : M/S. Kothari Petrochemicals Limited
Customer Address : Manali, Chennai-600038
Sample Name : Water
Sample Description : Marine Discharge Water
Sample No : EN20080008-01
Sample Identification : Ro Reject (Marine Discharge) Water **Sample Received on** : 07 Aug 2020
Sample Condition : Fit for Analysis **Test Started on** : 07 Aug 2020
Sample Quantity : 5 Litre **Test Completed on** : 18 Aug 2020

Test Results

| Sl.No | Test Name | Test Method | Results | Units | Tolerance Limit as per TNPCB |
|-------|--|---|----------------|-------|------------------------------|
| 1 | Colour | APHA 23rd Edition Part 2120 B : 2017 | 10 | Hazen | - |
| 2 | Odour | APHA 23rd Edition Part 2150 B : 2017 | Agreeable | - | - |
| 3 | Total Dissolved Solids (Inorganic) | APHA 23rd Edition Part 2540 C : 2017 | 1284 | mg/L | - |
| 4 | pH @ 25°C | APHA 23rd Edition Part 4500 H+ B : 2017 | 7.88 | - | 5.5 - 9.0 |
| 5 | Lead as Pb | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 0.1 |
| 6 | Mercury as Hg | EPA 200.8 Revision 5.4 : 1994 | 0.002 | mg/L | 0.01 |
| 7 | Total Chromium as Cr | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 2 |
| 8 | Copper as Cu | APHA 23rd Edition Part 3125 B : 2017 | 0.003 | mg/L | 3 |
| 9 | Nickel as Ni | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 3 |
| 10 | Chloride as Cl | APHA 23rd Edition Part 4500 Cl - B : 2017 | 426 | mg/L | - |
| 11 | Fluoride as F | APHA 23rd Edition Part 4500 F D : 2017 | Less than 0.1 | mg/L | 2 |
| 12 | Sulphate as SO ₄ | IS 3025 (Part 24): 2014 | 46 | mg/L | 1000 |
| 13 | Phenolic Compounds as C ₆ H ₅ OH | APHA 23rd Edition Part 5530 C : 2017 | BDL(DL:0.001) | mg/L | 1 |
| 14 | Arsenic as As | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 0.2 |
| 15 | Cadmium as Cd | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 2 |
| 16 | Zinc as Zn | APHA 23rd Edition Part 3125 B : 2017 | 0.012 | mg/L | 1 |
| 17 | Boron as B | IS 3025 (Part 65): 2014 | 0.313 | mg/L | 12 |

Page 1 of 2


 Authorized Signature
 E. Prithvirajan
 Manager - Lab

6/1, 1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai – 600 106.

WARNING: Attention is drawn to the limitations of the liability, indemnification and jurisdictional issues established there in any holder of this document is advised that information contained hereon reflect the company's findings at the time of its intervention only and within the limits of client's instructions, if any. The company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document

For KOTHARI PETROCHEMICALS LIMITED


 Authorized Signatory

ORIGINAL



GLens Innovation Labs Pvt Ltd.

TEST REPORT

Report No : EN20080008-01 Report Date : 19 Aug 2020

| Sl.No | Test Name | Test Method | Results | Units | Tolerance Limit as per TNPCB |
|-------|--|---|----------------|-------|------------------------------|
| 18 | Selenium as Se | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 0.05 |
| 19 | Total suspended solids(TSS) | APHA 23rd Edition Part 2540 D : 2017 | 27 | mg/L | < 100 |
| 20 | Residual Sodium Carbonate | IS 11624 : 1986 RA 2015 | BDL(DL:1.5) | meq/L | -- |
| 21 | Sulphide as S | APHA 23rd Edition Part 4500 S F : 2017 | BDL(DL:1.0) | mg/L | 2 |
| 22 | Cyanide as CN | APHA 23rd Edition Part 4500 CN C E F : 2017 | BDL(DL:0.01) | mg/L | 0.2 |
| 23 | Total Kjeldahl Nitrogen as N | APHA 23rd Edition Part 4500 Norg B : 2017 | 19.8 | mg/L | 100 |
| 24 | Sodium Absorption Ratio | IS 11624: 1986 RA : 2015 | 44 | - | - |
| 25 | Chemical oxygen demand | APHA 23rd Edition Part 5220 B,C : 2017 | 89 | mg/L | 250 |
| 26 | Free Ammonia as NH3 | APHA 23rd Edition Part 4500 NH3 C : 2017 | 1.6 | mg/L | 5 |
| 27 | Percent sodium | GL/EN/SOP/147 | 43.6 | % | -- |
| 28 | Phosphate as PO4 | APHA 23rd Edition Part 4500 P D : 2017 | BDL(DL:0.05) | mg/L | |
| 29 | Biochemical Oxygen demand at 27°C for 3 days | IS 3025 (Part 44): 1993 RA : 2014 | 18 | mg/L | 30 |
| 30 | Iron as Fe | APHA 23rd Edition Part 3500 Fe B : 2017 | 0.3 | mg/L | - |
| 31 | Total Residue Chlorine | APHA 23rd Edition Part 4500 Cl C : 2017 | BDL(DL:0.1) | mg/L | 1 |
| 32 | Temperature | APHA 23rd Edition Part 2150 B : 2017 | 26.5 | °c | 45 |
| 33 | Oil and Grease | APHA 23rd Edition Part 5520 B: 2017 | BDL(DL:4.0) | mg/L | 10 |
| 34 | Ammonical Nitrogen as NH3-N | APHA 23rd Edition Part 4500 NH3 C : 2017 | 3.4 | mg/L | 50 |
| 35 | Pesticides | GL/EN-INS/SOP/16 | BLQ(LOQ:0.005) | µg/L | Absent |

Remarks : The above ETP Outlet water sample is below the TNPCB discharge limit against the above tested Parameters for which the limit has been provided in the specification.

Note: BDL-Below Detection Limit, DL- Detection Limit, BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report
Page 2 of 2


Authorized Signature

E. Prithvirajan
Manager - Lab

#.6/1, 1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai – 600 106.

WARNING: Attention is drawn to the limitations of the Liability, indemnification and jurisdictional issues established there in any holder of this document is advised that information contained hereon reflect the company's findings at the time of its intervention only and within the limits of client's instructions, if any. The company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document

For KOTHARI PETROCHEMICALS LIMITED


Authorized Signatory

ORIGINAL



GLens Innovation Labs Pvt Ltd.

TEST REPORT

Report No : EN20100049-01 Report Date : 07 Nov 2020
SAMPLE NOT DRAWN BY LABORATORY
 Customer Name : M/S. Kothari Petrochemicals Limited
 Customer Address : Manali, Chennai-600038
 Sample Name : Water
 Sample Description : Marine Discharge Water
 Sample No : EN20100049-01
 Sample Identification : Ro Reject (Marine Discharge) Water Sample Received on : 22 Oct 2020
 Sample Condition : Fit for Analysis Test Started on : 22 Oct 2020
 Sample Quantity : 15 Litre Test Completed on : 31 Oct 2020

Test Results

| Sl.No | Test Name | Test Method | Results | Units | Tolerance Limit as per TNPCB |
|-------|--|---|----------------|-------|------------------------------|
| 1 | Colour | APHA 23rd Edition Part 2120 B : 2017 | 5 | Hazen | - |
| 2 | Odour | APHA 23rd Edition Part 2150 B : 2017 | Agreeable | - | - |
| 3 | Total Dissolved Solids (Inorganic) | APHA 23rd Edition Part 2540 C : 2017 | 10490 | mg/L | - |
| 4 | pH @ 25°C | APHA 23rd Edition Part 4500 H+ B : 2017 | 7.80 | - | 5.5 - 9.0 |
| 5 | Lead as Pb | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 0.1 |
| 6 | Mercury as Hg | EPA 200.8 Revision 5.4 : 1994 | 0.004 | mg/L | 0.01 |
| 7 | Total Chromium as Cr | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 2 |
| 8 | Copper as Cu | APHA 23rd Edition Part 3125 B : 2017 | 0.011 | mg/L | 3 |
| 9 | Nickel as Ni | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 3 |
| 10 | Chloride as Cl | APHA 23rd Edition Part 4500 Cl - B : 2017 | 5598 | mg/L | - |
| 11 | Fluoride as F | APHA 23rd Edition Part 4500 F D : 2017 | 0.39 | mg/L | 2 |
| 12 | Sulphate as SO ₄ | IS 3025 (Part 24): 2014 | 227 | mg/L | 1000 |
| 13 | Phenolic Compounds as C ₆ H ₅ OH | APHA 23rd Edition Part 5530 C : 2017 | BDL(DL:0.001) | mg/L | 1 |
| 14 | Arsenic as As | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 0.2 |
| 15 | Cadmium as Cd | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 2 |
| 16 | Zinc as Zn | APHA 23rd Edition Part 3125 B : 2017 | 0.052 | mg/L | 1 |
| 17 | Boron as B | IS 3025 (Part 65): 2014 | 0.513 | mg/L | 2 |

Page 1 of 2

E. Prithvirajan
 Authorized Signature
 E. Prithvirajan
 Manager - Lab

#. 6/1, 1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai – 600 106.

WARNING: Attention is drawn to the limitations of the Liability, indemnification and jurisdictional issues established there in any holder of this document is advised that information contained hereon reflect the company's findings at the time of its intervention only and within the limits of client's instructions, if any. The company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document

For KOTHARI PETROCHEMICALS LIMITED

[Signature]
 Authorised Signatory

ORIGINAL



GLens Innovation Labs Pvt Ltd.

TEST REPORT

Report No : EN20100049-01 Report Date : 07 Nov 2020

| Sl.No | Test Name | Test Method | Results | Units | Tolerance Limit as per TNPCB |
|-------|--|---|----------------|-------|------------------------------|
| 18 | Selenium as Se | APHA 23rd Edition Part 3125 B : 2017 | BLQ(LOQ:0.005) | mg/L | 0.05 |
| 19 | Total suspended solids(TSS) | APHA 23rd Edition Part 2540 D : 2017 | 3.0 | mg/L | < 100 |
| 20 | Residual Sodium Carbonate | IS 11624 : 1986 RA 2015 | BDL(DL:1.5) | meq/L | -- |
| 21 | Sulphide as S | APHA 23rd Edition Part 4500 S F : 2017 | BDL(DL:1.0) | mg/L | 2 |
| 22 | Cyanide as CN | APHA 23rd Edition Part 4500 CN C E F : 2017 | BDL(DL:0.01) | mg/L | 0.2 |
| 23 | Total Kjeldahl Nitrogen as N | APHA 23rd Edition Part 4500 Norg B : 2017 | 84 | mg/L | 100 |
| 24 | Sodium Absorption Ratio | IS 11624: 1986 RA : 2015 | 44 | - | - |
| 25 | Chemical oxygen demand | APHA 23rd Edition Part 5220 B,C : 2017 | 71 | mg/L | 250 |
| 26 | Free Ammonia as NH3 | APHA 23rd Edition Part 4500 NH3 C : 2017 | 1.33 | mg/L | 5 |
| 27 | Percent sodium | GL/EN/SOP/147 | 94.26 | % | -- |
| 28 | Phosphate as PO4 | APHA 23rd Edition Part 4500 P D : 2017 | BDL(DL:0.05) | mg/L | |
| 29 | Biochemical Oxygen demand at 27°C for 3 days | IS 3025 (Part 44): 1993 RA : 2014 | 15 | mg/L | 30 |
| 30 | Iron as Fe | APHA 23rd Edition Part 3500 Fe B : 2017 | 0.97 | mg/L | - |
| 31 | Total Residue Chlorine | APHA 23rd Edition Part 4500 Cl C : 2017 | BDL(DL:0.1) | mg/L | 1 |
| 32 | Temperature | APHA 23rd Edition Part 2150 B : 2017 | 26.5 | °c | 45 |
| 33 | Oil and Grease | APHA 23rd Edition Part 5520 B : 2017 | BDL(DL:4.0) | mg/L | 10 |
| 34 | Ammonical Nitrogen as NH3-N | APHA 23rd Edition Part 4500 NH3 C : 2017 | 38 | mg/L | 50 |
| 35 | Pesticides | GL/EN-INS/SOP/16 | BLQ(LOQ:0.005) | µg/L | Absent |

E. Prithvirajan
 Authorized Signature
 E. Prithvirajan
 Manager - Lab

#.6/1, 1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai – 600 106.

WARNING: Attention is drawn to the limitations of the Liability, indemnification and jurisdictional issues established there in any holder of this document is advised that information contained hereon reflect the company's findings at the time of its intervention only and within the limits of client's instructions, if any. The company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document

For KOTHARI PETROCHEMICALS LIMITED

P. J. T.
 Authorised Signatory

ORIGINAL



GLens Innovation Labs Pvt Ltd.

TEST REPORT

Report No : EN20100049-01 Report Date : 07 Nov 2020

| Radioactive Analysis ## | | | | |
|-------------------------|----------------|---------------------------------|---------|--|
| Sl.No | Test Name | Test Method | Results | Minimum Detectable Activity of the Instrument |
| 34 | Alpha Emitters | IS 14194 (Part 2): 2013[cl.6.3] | BDL | MDA (3 α) 1.6×10^{-10} μ Ci/ml |
| 35 | Beta Emitters | IS 14194 (Part 1): 2013[cl.6.2] | BDL | MDA (3 α) 8.11×10^{-10} μ Ci/ml |

Remarks : The above ETP Outlet water sample is below the TNPCB discharge limit against the above tested Parameters for which the limit has been provided in the specification.

Note: ## Radioactive Analysis Subcontracted to Monarch Biotech Pvt. Ltd- Chennai.

BDL-Below Detection Limit, **DL**- Detection Limit

BLQ-Below Limit of Quantification, **LOQ**-Limit of Quantification

MDA: Minimum Detectable Activity, **BDL** : Below Detection Level & **CI**: Curie

End of Report

Page 2 of 2

Authorized Signature

E. Prithvirajan
Manager - Lab

#.6/1, 1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai - 600 106.

WARNING: Attention is drawn to the limitations of the Liability, indemnification and jurisdictional issues established there in any holder of this document is advised that information contained hereon reflect the company's findings at the time of its intervention only and within the limits of client's instructions, if any. The company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document

For KOTHARI PETROCHEMICALS LIMITED

Authorized Signatory



ARN TECHNOLOGIES

PHYSICO CHEMICAL ANALYSIS TEST REPORT

REPORT NO. ARN01084

DATE: 24/10/2020

CLIENT NAME : M/S. KOTHARI PETRO CHEMICALS LIMITED.,
 ADDRESS FOR THE COMMUNICATION : NO.1/2B, 33/5, SATHANGADU VILLAGE,,
 MANALI, CHENNAI, TAMILNADU – 600 068, INDIA
 NAME OF THE SAMPLE : STACK EMISSION
 IDENTIFICATION OF THE LOCATION : BOILER STACK - POWEER PLANT – (BIOMASS)
 FUEL - RICE HUSK FIRED BOILER
 IDENTIFICATION OF THE LAB CODE : EN – 1020 – 14 - (01)
 SAMPLING HOURS & TIME : 30 MINUTES & 10.00 HRS TO 10.30 HRS.
 SAMPLE COLLECTED BY : ARN TECHNOLOGIES
 SAMPLING DATE & RECEIVING DATE : 23/10/20 / 23/10/20
 ANALYSIS COMMENCING DATE : 23/10/20
 ANALYSIS COMPLETED DATE : 24/10/20
 SAMPLING PROTOCOL : IS: 11255 (PART 1) -1999

| S. NO. | DESCRIPTION | UNITS | TEST PROTOCOL | RESULTS OBTAINED | TNPCB LIMITS |
|--------|---------------------------------------|---------------------|---|------------------|--------------|
| 1 | STACK HEIGHT | METER | - | 33.0 | NS |
| 2 | STACK DIA | METER | - | 1.0 | NS |
| 3 | STACK VELOCITY | M/SEC | - | 6.60 | NS |
| 4 | STACK TEMPERATURE | °C | - | 230 | NS |
| 5 | AMBIENT TEMPERATURE | °C | - | 35 | NS |
| 6 | EMISSION FLOW RATE | NM ³ /HR | IS 11255 P 3 1999 | 10,280 | NS |
| 7 | PARTICULATE MATTER (PM) | MG/NM ³ | IS 11255 P 1 1985 REAFFIRMED 2003 | 26 | 150 |
| 8 | OXIDES OF SULPHUR (SO _x) | MG/NM ³ | IS 11255 P 2 1985 REAFFIRMED 2003 | 12 | NS |
| 9 | OXIDES OF NITROGEN (NO _x) | PPM | SAMPLING IS 1125 (ANALYSIS) IS 5182 | 40 | NS |
| 10 | CARBON MONO OXIDE (CO) | MG/NM ³ | ORSAT - IS 13270 1992 REAFFIRMED 2003: 4 | BDL (DL-1.0) | 1% |

NOTE: BDL -BELOW DETECTABLE LIMIT; DL- DETECTION LIMIT; NS – NOT SPECIFIED

FOR ARN TECHNOLOGIES

REMARKS: AS ABOVE TESTED VALUES ARE MEETS THE TNPCB STANDARDS

NOTE: RESULTS RELATED TO THE ITEMS ARE TESTED ONLY

*****END OF REPORT*****

AUTHORIZED SIGNATORY
PAGE 1 OF 1

NO.185/17, S.V. LINGAM SALAI, K.K NAGAR, CHENNAI – 600 078. TAMILNADU, INDIA

E-Mail – arngroupofcompanies@gmail.com

Landline: 044-48552213 / Mobile: 9094989996; 9094222296

For KOTHARI PETROCHEMICALS LIMITED

Authorized Signatory

**BEFORE THE NATIONAL GREEN
TRIBUNAL
SOUTH ZONE BENCH
AT CHENNAI**

**Original Application No 19 of 2013 (SZ)
(THC)**

**OBJECTIONS FILED BY 6TH
RESPONDENT VIZ KOTHARI
PETROCHEMICALS LIMITED
TO THE FINAL REPORT OF JOINT
COMMITTEE DT.28.10.2020, FILED
BY CPCB**

AR.Ramanathan
Ms No 499/99
Counsel for 6th Respondent
arramanathan123@gmail.com
9840232072