

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,**  
**SOUTHERN ZONE, CHENNAI**

**Original Application No. 124/2021 (SZ)**

Sibi Joseph

Applicant

Versus

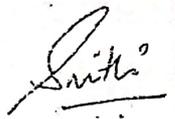
Union of India, Ministry of

Environment, Forests and Climate Change

and Others

Respondents

**REPORT FILED BY THE ENVIRONMENTAL ENGINEER,**  
**KERALA STATE POLLUTION CONTROL BOARD, DISTRICT OFFICE,**  
**PALAKKAD FOR AND ON BEHALF OF THE 7<sup>th</sup> RESPONDENT**  
**KERALA STATE POLLUTION CONTROL BOARD**



**Adv.Remasmrithi.V.K**

ADDITIONAL STANDING COUNSEL

RESPONDENT No.7

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Dated this the 4<sup>th</sup> November 2022

**Remasmrithi.V.K,** Advocate

Additional Standing Counsel

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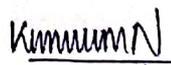
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**KERALA STATE POLLUTION CONTROL BOARD**

I, Krishnan M N, S/o M S Narayanan, am the Environmental Engineer, Kerala State Pollution Control Board, District Office, Palakkad. I am duly authorized by Member Secretary of Kerala State Pollution Control Board to represent the Board in the O.A. I do hereby solemnly affirm and state as follows.



  
**Krishnan M.N**  
Environmental Engineer

1. The Joint Committee (JC) appointed by the Hon'ble National Green Tribunal (NGT) had filed its report before the Tribunal. But the Joint Committee had indicated in its report that the sampling of water was done when the quarry of 8<sup>th</sup> respondent was not in operation. In the Order dated 13.10.2022, the Tribunal had directed "The Kerala State Pollution Control Board to take further sample when the unit is in operation as per norms and give it for testing and file a report."
2. Based on the direction of the Tribunal the Royal Sand and Gravels quarry was inspected by Officials of the Board on 22.10.2022. The quarry was operational. The crusher unit adjacent to the quarry was also operational. Inside the quarry area breakers and haulers were working. Vehicles carrying boulders were moving. The area where quarrying was being done was filled with water and hence it was being pumped into the series of settling tanks before reaching the final outlet of quarry premises. Sampling was carried out from all the eight locations / sources as done during the inspection and sampling of Joint Committee earlier. The locations / sources are : Natural Stream, Quarry Pit, Settling Tank 1, Settling Tank II, Settling Tank III, Pipe Outlet, Final Outlet. From the final outlet, water flows out into the nearby land.
3. Total suspended solids (TSS), total dissolved solids (TDS), chemical oxygen demand (COD), pH, electrical conductivity (EC), calcium, sodium, potassium, silica, copper, iron, manganese, nickel and lead were analyzed in these samples. The results of analysis are given in Table 1

Table 1: Water quality characteristics of samples from Royal Sand and Gravel

Date of Sampling: 22-10-2022

<b>ANALYSIS REPORT OF ROYAL SAND AND GRAVEL</b>							
<b>Date of sampling : 22/10/2022</b>							
Station Name	Natural Stream	Quarry Pit	Settling Tank I	Settling Tank II	Settling Tank III	Pipe Outlet	Final Outlet
pH	7.1	7.23	7.23	7.34	7.33	7.3	7.34
EC, $\mu\text{S}/\text{cm}$	37.2	86.75	61.33	82.72	81.95	87.52	97.63
TDS, mg/L	25	58	41	55	55	59	65



*Krishnan M.N.*  
**Krishnan M.N.**  
 Environmental Engineer

Turbidity, NTU	BDL						
Total Suspended Solids, mg/L	BDL						
COD, mg/L	48	48	40	44	44	28	32
Calcium, mg/L	3.2	8	4.8	4.8	6.4	8	4.8
Sodium, mg/L	5.14	5.38	5.4	5.34	5.48	5.65	8.46
Potassium, mg/L	0.52	2.69	1.14	2.23	1.95	3.19	1.72
Silica, mg/L	33.71	22.23	23.51	11.71	32.41	49.25	28.86
Copper, mg/L	BDL	BDL	BDL	BDL	BDL	BDL	0.01
Iron, mg/L	0.041	0.426	1.005	0.296	0.323	0.516	0.457
Manganese, mg/L	BDL	BDL	BDL	BDL	BDL	BDL	0.106
Nickel, mg/L	BDL						
Lead, mg/L	BDL						

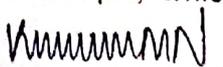
4. The results were compared with for Drinking Water Specification IS 10500 of 2012 notified by Bureau of Indian Standards. The results are tabulated in Table 2.

Table 2 : Comparison of Salient Parameters of Water Quality with Drinking Water Specifications

Sl. No.	Parameter	Unit	Observed value in Final Outlet	Permissible limit
1	pH	-	7.34	6.5-8.5
2	Turbidity	NTU	BDL	5
3	TDS	mg/L	65	2000
4	Calcium	mg/L	4.8	200
5	Iron	mg/L	0.457	0.3
6	Manganese	mg/L	0.106	0.3
7	Copper	mg/L	0.01	1.5
8	Nickel	mg/L	BDL	0.02
9	Lead	mg/L	BDL	0.01

5. All the parameters except Iron are within permissible limits of drinking water. The concentration of iron was 1.12 mg/L in the earlier sample, which is now



  
**Krishnan M.N**  
 Environmental Engineer

obtained as 0.45 mg/L. It is inferred that active quarrying has not caused any effect on the concentration of iron, so the exceedance of iron cannot be connected to quarrying activity. The concentration of iron is attributed to the geology of the area. It is concluded that results of previous sampling done when the quarry was not in operation and current sampling done when the quarry was in operation are comparable. There is no considerable increase in any parameter.

6. The quarry of the 9<sup>th</sup> respondent Marymatha Granites has stopped operation. It does not possess valid Consent to Operate as on date: Hence that quarry was not inspected.

Dated this the 4<sup>th</sup> of November, 2022.



*Krishnan M.N.*

**DEPONENT**

**Krishnan M.N.**  
Environmental Engineer

Solemnly affirmed and signed by the deponent who is known to me on this the 4<sup>th</sup> of November, 2022

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NATIONAL GREEN  
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**OA no. 124/2021 (SZ)**

**Report filed by the  
Environmental Engineer,  
Kerala State Pollution Control Board,  
District Office, Palakkad on behalf of the  
Kerala State Pollution Control Board  
in Original Application No.  
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**Adv. Remasmrithi.V.K**

**ADDITIONAL  
STANDING COUNSEL**

**RESPONDENT No.7**

**9445782946**