



# CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

(A Govt. of India Autonomous Body)  
Environmental Chemical Laboratory  
Bhubaneswar, Odisha  
TEST REPORT

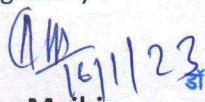


TC-8091

Issued to : Customer name to be decoded	Date :16.01.2023
Test report No –NABL/ECL/12125	
Source of Sample : Source to be decoded	Sample receiving Date : 14.12.2022
Type of Sample : Drinking water	Sample Analysis Date : 14.12.2022

Sl No	Characteristics	Test Method (P)of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	0.10
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	7.99@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	66.0
4.	Total Hardness (as CaCO <sub>3</sub> ),mg/L	Part 21	200	600	20.0
5.	Calcium as Ca, mg/L	Part 40	75	200	6.81
6.	Magnesium as Mg, mg/L	Part 46	30	100	0.97
7.	Alkalinity as CaCO <sub>3</sub> , mg/L	Part 23	200	600	16.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	17.0
9.	Sulfate as SO <sub>4</sub> , mg/L	Part 24	200	400	1.47
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	0.03
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.368
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.001
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	0.025
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.300
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	0.029
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	0.040

Authorized Signatory

  
**Dr. Arakshita Majhi**  
Principal Scientist

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डॉ. अरक्षिता माझि/Dr. Arakshita Majhi  
प्रधान वैज्ञानिक/Principal Scientist  
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सीएसआईआर-खनिज एवं पदार्थ प्रौद्योगिकी संस्थान  
CSIR-Institute of Minerals & Materials Technology  
भुवनेश्वर/Bhubaneswar-751013

#### NOTES :

1. The sample is drawn by the client& result relates to the sample tested.
2. This certificate shall not be reproduced wholly or in part without prior written consent of the laboratory.
3. This certificate shall not be used in any advertising media or as evidence in the court of Law without prior written consent of laboratory.
4. Latest version of test methods used as per latest specification.
5. It is recommended that the acceptable limit is to be implemented. Values in excess of those mentioned in "acceptable limit" render the water not suitable, but still may be tolerated in the absence of an alternative source but up to the limits indicate under "permissible limit" in the absence of alternative sources, above which the source will have to be rejected.

Non NABL Test report – P.T.O

'End of Test Report'



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19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, $\mu\text{s}/\text{cm}$	Part 14	-	-	91
22.	*Total Suspended Solid, mg/l	Part 17	-	-	0.1
23.	*Nitrite as $\text{NO}_2$ , mg/L	Part 34	-	-	0.074
24.	*Nitrate as $\text{NO}_3$ , mg/L	Part 34	45	No relaxation	1.698
25.	Sodium, mg/l	Part 45	-	-	9.62
26.	Potassium, mg/l	Part 45	-	-	0.52
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	BDL
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	0.002
29.	Dissolved Oxygen, mg/l	Part 38	-	-	6.70
30.	Biological Oxygen Demand, mg/l	Part 44	-	-	0.1
31.	Chemical Oxygen Demand, mg/l	Part 58	-	-	BDL
32.	Oil and Grease, mg/l	Part 39	0.5	No relaxation	BDL

**BDL – Below Detection Limit**

Authorized Signatory

**Dr. Arakshita Majhi**

Principal Scientist

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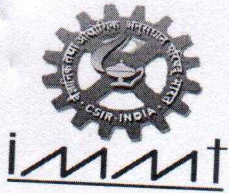
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6. Testing parameters which are not set limitation has marked as "-".

'End of Test Report'

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Laboratory: Acharya Vihar, Bhubaneswar, Odisha-751013. Tel: 0674-2379236, Mobile: 9760387460.  
E-mail: [dir@immt.res.in](mailto:dir@immt.res.in).



CSIR - Institute of Minerals and Materials Technology  
(Council of Scientific and Industrial Research)  
Bhubaneswar-751013, Odisha, India  
Environmental Biology Laboratory (EBL)  
Environment & Sustainability Department

Test Report

Sample code: <b>NABL/EBL12125</b>	Test report Date: 6.1.2023
Test Report No.: <b>ULR-TC81952100000000112/EBL1/23-2</b>	
Source of Sample: DOH-4	Sample condition: Satisfactory
Date of Sampling (provided by the customer): 14.12.2022	Sample Received on: 14.12.2022
Type of Sample: Drinking water	Sample analysis started on: 19.12.2022

Sl. No.	Test/Parameter	Test Method	Requirements as per IS 10500:2012 (RA 2018)		Test Result with units of measurement	Statement of Conformity
			Acceptable limit	Permissible Limit		
1.	<i>E.coli</i> by Membrane filtration	IS 15185 RA 2018	Shall not be detect in 100ml sample	No relaxation	Absent per 100 ml	Conformance
2.	Total coliform by MPN	IS 1622 RA 2019	Shall not be detect in 100ml sample	No relaxation	<2 MPN/100mL	Conformance
3.	Fecal coliform by MPN	IS 1622 RA 2019	Shall not be detect in 100ml sample	No relaxation	<2 MPN/100 mL	Conformance

\*\*\*End of test report\*\*\*

Authorized Signatory

*Dr. Sony Pandey*  
6.1.2023  
**Quality Manager**  
Dr. Sony Pandey  
(Principal Scientist, E&S Department)

Environmental Biology Lab  
Lab, E&S Dept.

Notes:

1. The test report relates only to the items tested.
2. The sample is drawn by the customer, hence EBL is not responsible for any errors arising out of faulty sample withdrawal, handling or container.
3. Sterile containers and aseptic handling of samples during collection and transport is necessary for correct results. EBL is not responsible for mistakes on the part of customers.
4. The decision rule is inherent in the standard as the acceptable and permissible limits are pre-defined.

Contact: Head, Environment & Sustainability Department at Tel: 91-674-2379411/2379271/2379242, Mobile: 9437460626/9437290470/9337733311, email: [head.es@imnt.res.in](mailto:head.es@imnt.res.in), Website: [www.imnt.res.in](http://www.imnt.res.in)  
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Doc No. QR26

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