

**PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES**

Ministry of Science &amp; Technology, Government of Pakistan

Khalaban-e-Johar, H-8/1, Islamabad

[www.pcrwr.gov.pk](http://www.pcrwr.gov.pk)**WATER QUALITY TEST REPORT (CHEMICAL ANALYSIS)**

Report Serial No	Chem-2335	Total No. of Pages	2
Client Name & Address	M/S Water Wise PK, 104/3, A-Block, Stalite town Rawalpindi.		
Sampling Date	14-08-08	Sampling Time	-
NWQL Sample Code.	CL-1765 (12)-08	Client Code	Saeed Abad Filtration Plant Rohri Settled Water.
Temperature of sample at receipt °C	25°C	Sample Receipt Date	19-08-08
Date (s) of Analysis	19-08-08 to 25-08-08	Reporting Date	2-09-08

**PHYSICAL & AESTHETIC PARAMETERS**

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits	Results	Measurement Uncertainty
1.	Color*	-	-	Sensory evaluation	Colorless	Muddy	NA
2.	Odor*	-	-	Sensory evaluation	Unobjectionable	Unobjectionable	NA
3.	Taste*	-	-	Sensory evaluation	Unobjectionable	Objectionable	NA
4.	Electrical Conductivity	(µS/cm)	0.2875	APHA, 20 <sup>th</sup> Edition	NGVS	290	± 2
5.	pH	-	0.02	APHA, 20 <sup>th</sup> Edition	6.5-8.5 (WHO, 2004)	7.96	± 0.04
6.	Turbidity	NTU	0.2	APHA, 20 <sup>th</sup> Edition	5 (WHO, 2004)	186	± 3

**MAJOR CHEMICAL PARAMETERS**

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits	Results	Measurement Uncertainty
7.	Alkalinity	ppm		APHA, 20 <sup>th</sup> Edition	NGVS	82	± 3
8.	Ammonia as NH <sub>4</sub> <sup>+</sup> *	ppm	0.05	USEPA, 2000	15 (WHO, 2004)	-	±
9.	Bicarbonate	ppm	5.0	APHA, 20 <sup>th</sup> Edition	NGVS	82	± 3
10.	Calcium	ppm	2.0	APHA, 20 <sup>th</sup> Edition	75 (WHO, 2004)	29	± 1
11.	Carbonate	ppm	5.0	APHA, 20 <sup>th</sup> Edition	NGVS	BDL	-
12.	Chloride	ppm	2.0	APHA, 20 <sup>th</sup> Edition	250 (WHO, 2004)	10	± 1
13.	Hardness	ppm	5.0	APHA, 20 <sup>th</sup> Edition	500 (WHO, 2004)	112	± 3
14.	Magnesium	ppm	1.0	APHA, 20 <sup>th</sup> Edition	150 (WHO, 2004)	10	± 1
15.	Potassium	ppm	0.2	APHA, 20 <sup>th</sup> Edition	12 (EC, 1994)	4.9	± 0.1
16.	Sodium	ppm	1.0	APHA, 20 <sup>th</sup> Edition	200 (WHO, 2004)	13	± 1
17.	Sulfate	ppm	0.4	APHA, 20 <sup>th</sup> Edition	250 (WHO, 2004)	45	± 0.5
18.	Phosphate*	ppm	0.03	USEPA, 2000	NGVS	-	±
19.	Nitrate (N)	ppm	0.06	APHA, 20 <sup>th</sup> Edition	10 (WHO, 2004)	2	± 0.1
20.	Nitrite*	ppm	0.005	USEPA, 2000	3 (WHO, 2004)	-	±
21.	TDS*	ppm	-	APHA, 20 <sup>th</sup> Edition	1000 (WHO, 2004)	336	-
22.	Silicon*	ppm	0.1	APHA, 20 <sup>th</sup> Edition	No limit listed	-	±

**TRACE & ULTRA-TRACE ELEMENTS**

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits	Results	Measurement Uncertainty
23.	Arsenic	ppb	0.106	APHA, 20 <sup>th</sup> Edition	10 (WHO, 2004)	1.96	±0.13
24.	Copper	ppm	0.0551	APHA, 20 <sup>th</sup> Edition	2 (WHO, 2004)	-	±
25.	Chlorine*	ppm	0.05	APHA, 20 <sup>th</sup> Edition	5 (WHO, 2004)	-	±
26.	Fluoride	ppm	0.03	APHA, 20 <sup>th</sup> Edition	1.5 (WHO, 2004)	BDL	-
27.	Iron*	ppm	0.03	APHA, 20 <sup>th</sup> Edition	0.3 (WHO, 2004)	-	±
28.	Manganese	ppm	0.0598	APHA, 20 <sup>th</sup> Edition	0.1 (WHO, 2004)	-	±
29.	Zinc	ppm	0.1108	APHA, 20 <sup>th</sup> Edition	3 (WHO, 2004)	-	±
30.	Cadmium*	ppb	0.03	APHA, 20 <sup>th</sup> Edition	3 (WHO, 2004)	-	±

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WATER QUALITY TEST REPORT (CHEMICAL ANALYSIS)

31.	Chromium*	ppb	0.15	APHA, 20 <sup>th</sup> Edition	50 (WHO, 2004)	-	±
32.	Lead*	ppb	0.25	APHA, 20 <sup>th</sup> Edition	10 (WHO, 2004)	-	±
33.	Nickel*	ppb	0.58	APHA, 20 <sup>th</sup> Edition	20 (WHO, 2004)	-	±

WASTE WATER PARAMETERS

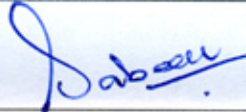

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits	Results	Measurement Uncertainty
34.	Biochemical Oxygen Demand*	ppm	3.0	APHA, 20 <sup>th</sup> Edition	80 (NEQS, 1999)	--	±
35.	Chemical Oxygen Demand*	ppm	3.0	APHA, 20 <sup>th</sup> Edition	150 (NEQS, 1999)	-	±
36.	Dissolved Oxygen*	ppm	0.2	APHA, 20 <sup>th</sup> Edition	No limit listed	-	±
37.	Total Suspended Solids*	mg/l	-	APHA, 20 <sup>th</sup> Edition	200 (NEQS, 1999)	-	±

NGVS: No Guideline Value Set WHO: World Health Organization EC: European Community APHA: American Public Health Association USEPA: United States Environment Protection Agency  
 BDL: Below Detection Limit, QC: Quality Control CSS: Customer Service Section, PSQCA: Pakistan Standard Quality Control Authority, NEQS: National Environment Quality Standards

Remarks (if any): \_\_\_\_\_

**Terms & Conditions:**

- Non-Accredited test parameters are identified by asterisk\*
- Test results in this report relate only to the test item/sample submitted and tested.
- The test report shall not be reproduced except in full, without written approval of NWQL-PCRWR
- Water Quality Parameters exceeding the WHO Drinking Water Guideline values (Guidelines for Drinking-Water Quality, third editions, 2004) and EC Standards for Drinking Water (Official Journal of The European Communities, 1994), National Environmental Quality Standards (1999) are highlighted.

Prepared by		Tech. Manager (Chem.)	
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