

**PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES**

Ministry of Science & Technology, Government of Pakistan

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

www.pcrwr.gov.pk**WATER QUALITY TEST REPORT (CHEMICAL ANALYSIS)**

Report Serial No	Chem-2324	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 (1)-08	Client Code	T.W Water Patni (Rohri/Sukkar)
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	Colorless	NA
2.	Odor*	-	-	Sensory evaluation	Unobjectionable	Unobjectionable	NA
3.	Taste*	-	-	Sensory evaluation	Unobjectionable	Unobjectionable	NA
4.	Electrical Conductivity	(µS/cm)	0.2875	APHA, 20 th Edition	NGVS	330	± 3
5.	pH	-	0.02	APHA, 20 th Edition	6.5-8.5 (WHO, 2004)	7.92	± 0.04
6.	Turbidity	NTU	0.2	APHA, 20 th Edition	5 (WHO, 2004)	1.1	± 0.1

MAJOR CHEMICAL PARAMETERS

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits	Results	Measurement Uncertainty
7.	Alkalinity	ppm		APHA, 20 th Edition	NGVS	107	± 3
8.	Ammonia as NH ₄ ⁺ *	ppm	0.05	USEPA, 2000	15 (WHO, 2004)	-	±
9.	Bicarbonate	ppm	5.0	APHA, 20 th Edition	NGVS	107	± 3
10.	Calcium	ppm	2.0	APHA, 20 th Edition	75 (WHO, 2004)	31	± 1
11.	Carbonate	ppm	5.0	APHA, 20 th Edition	NGVS	BDL	-
12.	Chloride	ppm	2.0	APHA, 20 th Edition	250 (WHO, 2004)	16	± 1
13.	Hardness	ppm	5.0	APHA, 20 th Edition	500 (WHO, 2004)	122	± 3
14.	Magnesium	ppm	1.0	APHA, 20 th Edition	150 (WHO, 2004)	11	± 1
15.	Potassium	ppm	0.2	APHA, 20 th Edition	12 (EC, 1994)	4.1	± 0.1
16.	Sodium	ppm	1.0	APHA, 20 th Edition	200 (WHO, 2004)	18	± 1
17.	Sulfate	ppm	0.4	APHA, 20 th Edition	250 (WHO, 2004)	32	± 0.4
18.	Phosphate*	ppm	0.03	USEPA, 2000	NGVS	-	±
19.	Nitrate (N)	ppm	0.06	APHA, 20 th Edition	10 (WHO, 2004)	BDL	-
20.	Nitrite*	ppm	0.005	USEPA, 2000	3 (WHO, 2004)	-	±
21.	TDS*	ppm	-	APHA, 20 th Edition	1000 (WHO, 2004)	181	-
22.	Silicon*	ppm	0.1	APHA, 20 th 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 th Edition	10 (WHO, 2004)	1.53	± 0.14
24.	Copper	ppm	0.0551	APHA, 20 th Edition	2 (WHO, 2004)	-	±
25.	Chlorine*	ppm	0.05	APHA, 20 th Edition	5 (WHO, 2004)	-	±
26.	Fluoride	ppm	0.03	APHA, 20 th Edition	1.5 (WHO, 2004)	0.52	± 0.01
27.	Iron*	ppm	0.03	APHA, 20 th Edition	0.3 (WHO, 2004)	-	±
28.	Manganese	ppm	0.0598	APHA, 20 th Edition	0.1 (WHO, 2004)	-	±
29.	Zinc	ppm	0.1108	APHA, 20 th Edition	3 (WHO, 2004)	-	±
30.	Cadmium*	ppb	0.03	APHA, 20 th Edition	3 (WHO, 2004)	-	±

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

WASTE WATER PARAMETERS

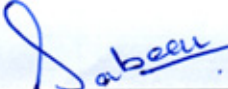
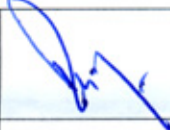

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits	Results	Measurement Uncertainty
34.	Biochemical Oxygen Demand*	ppm	3.0	APHA, 20 th Edition	80 (NEQS, 1999)	-	±
35.	Chemical Oxygen Demand*	ppm	3.0	APHA, 20 th Edition	150 (NEQS, 1999)	-	±
36.	Dissolved Oxygen*	ppm	0.2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

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- 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.)	
Tech. Manager (QC)		Tech. Manager (CSS)	