

# The University of Jordan Water, Energy and Environment Center



## أسعار التحاليل في مركز المياه و الطاقة و البيئة ٢٠٢١ Chemical Analysis for Water and Wastewater

Analysis	Analysis Fees (JOD)	Method Used *	Lab.	Container	Minimum Sample Size (ml)	Preservation	Result Release (day)
Electrical Conductivity (EC)	2.0	2510 B Laboratory method	Wastewater lab.	P, G, FP	500	Cool, ≤ 6 °C	2 days
pH**	6.0	4500-H+ B Electrometric method	Wastewater lab.	P, G	50	Analyze immediately	2 days
Color	12.0	2120 C Spectrophotometric Method	Wastewater lab.	P, G, FP	500	Cool, ≤ 6 °C	2 days
Turbidity	6.0	2130 B Nephelometric Method	Wastewater lab.	P, G, FP	100	Analyze same day; store in dark up to 24h, Cool, ≤ 6 °C	2 days
Calcium Ca, Sodium Na, Magnesium Mg, Potassium K, Ammonium NH4	12.0 Each	4110 C Single Column Ion Chromatography	Wet chemistry Lab.+ waste water lab.	P, G, FP	100	Cool, ≤ 6 °C	7 days
Fluoride F, Chloride Cl, Bromide Br, Nitrate NO <sub>3</sub> , Sulfate SO <sub>4</sub> , Phosphate PO <sub>4</sub>	12.0 Each	4110 C Single Column Ion Chromatography	Wet chemistry Lab.+ waste water lab.	P, G, FP	100	Cool, ≤ 6 °C	7 days
Carbonate CO <sub>3</sub> , Bicarbonate, HCO <sub>3</sub>	10.0	2320 B Titration Method	Wet chemistry Lab.	P, G, FP	200	Cool, ≤ 6 °C	2 days
Total Hardness, mg eq. CaCO <sub>3</sub> /L	10.0	2340 C EDTA-Titrimetric Method	Wet chemistry Lab.	P, G, FP	100	add HNO3 or H <sub>2</sub> SO <sub>4</sub> to pH < 2	2 days
Total Solids (TS)	12.0	2540 B Total Solids Dried at 103 – 105 C°	Wastewater lab.	P, G	200	or Cool, ≤ 6 °C	2 days
Total Dissolved Solids (TDS)**	20.0	2540 C Total Dissolved Solids Dried at 180 C°	Wastewater lab.	P, G	200	Cool, ≤ 6 °C	2 days
Total Suspended Solids (TSS)**	20.0	2540 D Total Suspended Solids Dried at 103 – 105 C°	Wastewater lab.	P, G	500	Cool, ≤ 6 °C	2 days
Fixed and volatile Solids (VS &VSS)	22.0	2540 E Fixed and Volatile solids Ignited at 550 C°	Wastewater lab.	P,G	500	Cool, ≤ 6 °C	2 days
Biological Oxygen Demand (BOD)	25.0	5210 D Respirometric Method	Wastewater lab.	G	1000	Analyze immediately	6 days



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Analysis	Analysis Fees (JOD)	Method Used *	Lab.	Container	Minimum Sample Size (ml)	Preservation	Result Release (day)
Chemical Oxygen Demand (COD)**	55.0	5220 D Closed Reflux, Colorimetric Method	Wastewater lab.	P, G, FP	100	add H <sub>2</sub> SO <sub>4</sub> to pH < 2; Cool, ≤ 6 °C	2 days
Organo – Chlorinated Pesticides	120.0	Gas Chromatographic	Instrumental Lab.	G(S), PTFE- lined cap	1000	Cool, ≤ 6 °C, add Ascorbic acid1000 mg/l if residual chlorine present	3 days

P= Plastic (Polyethylene or equivalent), FP=fluoropolymer (PTFE, Teflon) or other fluoropolymer, G(Glass); G(S)=glass rinsed with organic solvents or baked. Cool=storage at > 0 C,  $\le 6$  C°, in the dark.

- Fees provided above are for samples collected by customer.
- 2. Additional fees will be charged when samples are collected by WEE-Center.
- 3. For any other non-listed parameter, the cost will be estimated upon request.
- Additional (10) JOD will be charged when sample require preparation.

<sup>\*</sup> Analysis according to Standard Methods for Examination Water & Wastewater,  $23^{\rm rd}$  Edition, 2017

<sup>\*\*</sup> Accredited analysis according to ISO/IEC 17025:2017.



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### أسعار التحاليل في مركز المياه و الطاقة و البيئة ٢٠٢١ Microbiological Analysis for Water and Wastewater

Analysis	Analysis Fees (JOD)	Method Used *	Lab.	Container	Minimum Sample Size (ml)	Preservation	Result Release (day)
Total Coliforms & Escherichia Coli**	25.0	9223 B Enzyme Substrate Test	Microbiological Lab.	Autocleavable Glass sterilized at 121 C° for 15 minutes	500	Add sodium thiosulfate, Cool, ≤ 6 °C and analyzed immediately	2 days
<b>Total Count</b>	10.0	9215 D Membrane Filter Method	Microbiological Lab.	Autoclavable Glass sterilized at 121 Co for 15 minutes	500	Add sodium thiosulfate, Cool, ≤ 6 °C and analyzed immediately	3 days
Nematode eggs**	50.0	Sedimentation – Floatation Procedure (WHO 1996)	Microbiological Lab.	P, G	2000	1ml formalin	2 days
Chlorophyll a	15.0	Fluorometric	Microbiological Lab.	P,G	500	Immediately	2 days
Fungi	20.0	9610 D Membrane Filter Technique	Microbiological Lab.	Autoclavable Glass sterilized at 121 C° for 15 minutes	500	Add sodium thiosulfate, Cool, ≤ 6 °C and analyzed immediately	6 days
Algae Identification	20.0	8110 Algae Identification	Microbiological Lab.	P,G	500	Immediately	2 days
Pseudomonas Aeruginosa**	30.0	9213 E Membrane Filter Technique for seudomonas Aeruginosa	Microbiological Lab.	Autoclavable Glass sterilized at 121 Co for 15 minutes	500	Add sodium thiosulfate, Cool, ≤ 6 °C and analyzed immediately	4 days
Legionella**	75.0	ISO 11731:2017 Legionella	Microbiological Lab.	Autoclavable Glass sterilized at 121 C° for 15 minutes	1000	Add sodium thiosulfate, Cool, ≤ 6 °C and analyzed immediately	11 days
Endotoxin	150.0	LAL-test	Microbiological Lab.	Non pyrogenic test tube	25	Immediately	2 days

P= Plastic (Polyethylene or equivalent), G(Glass), Cool=storage at > 0 C,  $\le 6$  C°, in the dark.

- 1. Fees provided above are for samples collected by customer.
- 2. Additional fees will be charged when samples are collected by WEE-Center.
- 3. For any other non-listed parameter, the cost will be estimated upon request.
- 4. Additional (10) JOD will be charged when sample require preparation.

#### For more information:

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<sup>\*</sup> Analysis according to Standard Methods for Examination Water & Wastewater, 23<sup>rd</sup> Edition, 2017. (otherwise, the method is mentioned).

<sup>\*\*</sup> Accredited analysis according to ISO/IEC 17025:2017.