Republic of Bulgaria
Executive Agency
Bulgarian Accreditation Service

Signatory to the EA Multilateral Agreement in this field

BAS QF 2.11

ORDER

№ A 305

Sofia, 24.07.2023

Pursuant to Art. 10, para. 1, item 4, Art. 28, para. 1 of the Law on National Accreditation of Conformity Assessment Bodies and item 6 of the BAS QR 2 Accreditation Procedure, in connection with an open procedure reg. № 473/232 ЛИ/ПА/03.11.2022, assessment report reg. № 473/232 ЛИ/ПА/23.05.2023 and statement of the Accreditation Commission reg. № 473/232 ЛИ/ПА/17/В/19.08.2023, I hereby

RE-ACCREDIT

Vodosnabdyavane I Kanalizatsiya Ltd - Vratsa
Laboratory testing complex

Management address: 3000 Vratsa, 2 Alexander Stamboliyski Blvd.
Laboratory address: 3000 Vratsa, Vratsa territory, Zankinito Locality, Land plot № 12259.661.1

To perform testing of:

Type of the scope: *fixed*			
№	**Tested products**	**Type of test / characteristic**	**Testing methods (standard / validated method)**
1	**2**	**3**	**4**
1.	Drinking waters (1) Mineral waters (2) Surface waters (3) Ground waters (4) Water from swimming pools (5)	1.1. Color	БДС 8451:1977 cl. 2 (1,2) БДС 17.1.4.01:1977 (3,4)
		1.2. Smell	БДС 8451:1977 (1,2) БДС 17.1.4.01:1977 (3,4)
		1.3. Turbidity	БДС EN ISO 7027-1:2016 (1,2)
		1.4. Taste	БДС 8451:1977 cl. 3 (1,2)
		1.5. Temperature	БДС 8451:1977 cl. 5 (1,2) БДС 17.1.4.01:1977 (3,4,5)
		1.6. Specific electrical conductivity	БДС EN 27888:2000 (1,2,3,4,5)
		1.7. Total hardness (Sum of calcium and magnesium)	БДС ISO 6059:2002 (1,2,3,4)
		1.8. Active reaction, pH	БДС 3424:1981, cl.1 (1,2) БДС 17.1.4.27:1980, cl.1 (3,4,5)
		1.9. Permanganate oxidizability	БДС 3413:1977, (1,2) БДС 17.1.4.16:1979 (3,4,5)
		1.10. Ammonium ion	VLM 001/2018 (1,2,3,4,5) VLM 002/2018 (1,2,3,4,5)
		1.11. Nitrites	VLM 003/2018 (1,2,3,4,5)
		1.12. Nitrates	VLM 004/2018 (1,2,3,4,5)
		1.13. Chlorides	БДС 3414:1980 (1,2) БДС 17.1.4.24:1980 (3,4)
		1.14. Sulfates	VLM 005/2018 (1,2,3,4,5)

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Type of the scope: *fixed*			
№	**Tested products**	**Type of test / characteristic**	**Testing methods (standard / validated method)**
1	**2**	**3**	**4**
			VLM 006/2018 (1,2,3,4,5)
		1.15. Phosphates (ortho)	VLM 007/2018 (1,2,3,4,5)
		1.16. Magnesium	VLM 043/2020 (1,2,3,4)
		1.17. Calcium	БДС ISO 6058:2002 (1,2,3,4)
		1.18. Iron	VLM 008/2018 (1,2,3,4,5)
		1.19. Zinc	VLM 039/2018 (1,2,3,4,5) VLM 009/2018 (1,2,3,4,5)
		1.20. Copper	VLM 011/2018 (1,2,3,4,5)
		1.21. Lead	VLM 012/2018 (1,2,3,4)
		1.22. Manganese	VLM 013/2018 (1,2,3,4,5)
		1.23. Fluorides	VLM 014/2018 (1,2,3,4,5)
		1.24. Cadmium	VLM 015/2018 (1,2,3,4,5)
		1.25. Chrome (hexavalent)	VLM 016/2018 (1,2,3,4,5)
		1.26. Residual / free chlorine	VLM 017/2018 (1,5)
		1.27. Nickel	VLM 019/2018 (1,2,3,4,5)
		1.28. Cyanides (free)	VLM 020/2018 (1,2,3,4,5)
		1.29. Aluminum	VLM 021/2018 (1,2,3,4,5)
		1.30. Boron	VLM 022/2018 (1,2,3,4,5)
		1.31. Sodium	VLM 023/2018 (1,2,3,4,5)
		1.32. Mercury	VLM 024/2018 (1,2,3,4,5)
		1.33. Dry residue / undesolved substances	БДС 3546:1977 (1,2) БДС 17.1.4.04:1980 (3,4,5)
		1.34. Dissolved oxygen	БДС EN ISO 5814:2012 (1,2,3,4,5)
		1.35. Clostridium perfringens	БДС EN ISO 14189:2016 (1,2,3,4,5)
		1.36. Common Coliform Bacteria and Escherichia coli	БДС EN ISO 9308-1:2014/A1:2017 (1,2,4,5)
		1.37. Total number of colonies of viable microorganisms / microbial count	БДС EN ISO 6222:2002 (1,2,3,4,5)
		1.38. Enterococci	БДС EN ISO 7899-2:2003 (1,2,3,4,5)
2.	Wastewater	2.1. Active reaction, pH	БДС 17.1.4.27:1980, cl.1
		2.2. Temperature	БДС 17.1.4.01:1977, cl.4
		2.3. COD	VLM 026/2018 VLM 027/2018
		2.4. BOD_5	БДС EN ISO 5815-1:2019
		2.5. Nitrogen – ammonium	VLM 001/2018 VLM 002/2018
		2.6. Nitrogen – nitrate	VLM 034/2018
		2.7. Nitrogen – nitrite	VLM 036/2018
		2.8. Zink	VLM 009/2018
		2.9. Iron (total)	VLM 010/2018
		2.10. Lead	VLM 035/2018
		2.11. Manganese (total)	VLM 038/2018
		2.12. Total phosphorus	VLM 030/2018 VLM 031/2018
		2.13. Total nitrogen	VLM 032/2018 VLM 033/2018
		2.14. Undesolved substances	БДС 17.1.4.04:1980
		2.15. Coper	VLM 018/2018
		2.16. Nickel	VLM 025/2018
		2.18. Total Chrome (sum of	VLM 028/2018

Type of the scope: *fixed*			
№	**Tested products**	**Type of test / characteristic**	**Testing methods (standard / validated method)**
1	**2**	**3**	**4**
		Cr^{3+} and Cr^{6+})	
		2.19. Chrome (hexavalent)	VLM 029/2018
		2.20. Sulfates	VLM 005/2018 VLM 006/2018
		2.21. Cyanides (total)	VLM 037/2018

To perform sampling of:

Type of scope: *fixed*		
№	**Tested products**	**Sampling methods (standard/validated method)**
1	**2**	**4**
1.	Drinking water	БДС ISO 5667-5:2013
2.	Groundwater	БДС ISO 5667-11:2011
3.	Samples for microbiological analysis	БДС EN ISO 19458:2006
4.	Surface water	БДС ISO 5667-4:2016
5.	Water from swimming pools	БДС 17335:1993
6.	Wastewater	БДС ISO 5667-10-10:2020

References:

1. VLM 001/2018 Spectrophotometric method for determination of ammonium ion content in water.
2. VLM 002/2018 Spectrophotometric method for determination of ammonium ion content in water.
3. VLM 003/2018 Spectrophotometric method for determination of nitrite content in water
4. VLM 004/2018 Spectrophotometric method for determination of nitrate content in water.
5. VLM 005/2018 Spectrophotometric method for determination of sulfate content in water.
6. VLM 006/2018 Spectrophotometric method for determination of sulfate content in water.
7. VLM 007/2018 Spectrophotometric method for determination of phosphate content in water.
8. VLM 008/2018 Spectrophotometric method for determination of iron content in water.
9. VLM 009/2018 Spectrophotometric method for determination of zinc content in water.
10. VLM 010/2018 Spectrophotometric method for determination of iron content in wastewater.
11. VLM 011/2018 Spectrophotometric method for determining the copper content in water.
12. VLM 012/2018 Spectrophotometric method for the determination of lead content in water.
13. VLM 013/2018 Spectrophotometric method for the determination of manganese content in water.
14. VLM 014/2018 Spectrophotometric method for the determination of fluoride content in water.
15. VLM 015/2018 Spectrophotometric method for the determination of cadmium content in water.
16. VLM 016/2018 Spectrophotometric method for the determination of chrome (hexavalent) content in water.
17. VLM 017/2018 Method for determination of free chlorine content in water.
18. VLM 018/2018 Spectrophotometric method for determining the copper content in water.
19. VLM 019/2018 Spectrophotometric method for the determination of nickel content in water.
20. VLM 020/2018 Spectrophotometric method for the determination of cyanides content in water.
21. VLM 021/2018 Spectrophotometric method for the determination of aluminum content in water.
22. VLM 022/2018 Spectrophotometric method for the determination of boron content in water.
23. VLM 023/2018 Electrochemical method for the determination of the sodium content in

water.
24. VLM 024/2018 Spectrophotometric method for the determination of mercury content in water.
25. VLM 025/2018 Spectrophotometric method for the determination of nickel content in water.
26. VLM 026/2018 Spectrophotometric method for the determination of COD content in wastewater.
27. VLM 027/2018 Spectrophotometric method for the determination of COD content in wastewater.
28. VLM 028/2018 Spectrophotometric method for the determination the total chrom content in wastewater.
29. VLM 029/2018 Spectrophotometric method for the determination of chrome (hexavalent) content in wastewater.
30. VLM 030/2018 Spectrophotometric method for the determination of total phosphorus content in wastewater.
31. VLM 031/2018 Spectrophotometric method for the determination of total phosphorus content in wastewater.
32. VLM 032/2018 Spectrophotometric method for the determination of total nitrogen content in wastewater.
33. VLM 033/2018 Spectrophotometric method for the determination of total nitrogen content in wastewater.
34. VLM 034/2018 Spectrophotometric method for the determination of nitrate content in wastewater.
35. VLM 035/2018 Spectrophotometric method for the determination of lead content in wastewater.
36. VLM 036/2018 Spectrophotometric method for the determination of nitrite content in wastewater.
37. VLM 037/2018 Spectrophotometric method for the determination of total cyanide content in wastewater.
38. VLM 038/2018 Spectrophotometric method for the determination of total manganese content in wastewater.
39. VLM 039/2018 Spectrophotometric method for the determination of zinc content in water.
40. VLM 043/2020 Water quality. Determination of magnesium content. Titrimetric method with EDTA.

I ORDER

To issue the certificate of accreditation reg. № 232 ЛИ/24.07.2023, valid until 24.07.2027 of Laboratory testing complex, at Vodosnabdyavane I Kanalizatsiya Ltd, and this order as an integral part of it.

The certificate of accreditation with the enclosure to be received by the Manager / representative of the Vodosnabdyavane I Kanalizatsiya Ltd - Vratsa, the head of Laboratory testing complex, at Vodosnabdyavane I Kanalizatsiya Ltd – Vratsa, or other authorized person in the office of EA BAS.

Upon receipt of the certificate and the enclosure issued, the accredited person is obliged to return to EA BAS the originals of accreditation certificate № 232 ЛИ/12.02.2021, valid until 17.05.2023 and its enclosure – EA BAS order reg. № A 61/12.02.2021.

This order shall be notified to Vodosnabdyavane I Kanalizatsiya Ltd – Vratsa, within 3 (three) days from its issuance.

Eng. Irena Borislavova

Executive Director of EA BAS