

**The Appendix is an integral part of  
Certificate of Accreditation No. 407/2018 of 07/08/2018**

**Accredited entity according to ČSN EN ISO/IEC 17025:2005:**

**Laboratoř M O R A V A s.r.o.**  
Oderská 456, Butovice, 742 13 Studénka

**Testing laboratory locations:**

- |                                 |  |
|---------------------------------|--|
| <b>1. Studénka working site</b> | Oderská 456, Butovice, 742 13 Studénka |
| <b>2. Brno working site</b>     | Řípská 20a/1153, 627 00 Brno           |

*The Laboratory is qualified to update the standards identifying the test procedures.*

*The Laboratory has a flexible scope of accreditation permitted as detailed in the Annex.*

*Updated list of activities provided within the flexible scope of accreditation is available from the Laboratory Manager.*

*The Laboratory provides expert opinions and interprets test results.*

*The Laboratory is qualified to carry out independent sampling.*

**1. Studénka working site**

**Tests:**

Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
1	Determination of sulphate by titration	SOP 01 (ČSN 75 7477)	Water I, purified water, boiler water, aqueous extracts of waste.
2	Determination of As, Be, Cd, Mo, Pb, Sb, Se, V by AAS-Electrothermal Atomization method	SOP 02 (ČSN EN ISO 15 586; ČSN EN ISO 5961)	Water I, purified water, boiler water, aqueous extracts of waste.
3	Determination of As, Cd, Pb by AAS-Electrothermal Atomization method	SOP 02 A (ČSN EN ISO 15 586; ČSN EN ISO 5961; JPP ÚKZÚZ – Analysis of vegetable material)	Food, agricultural products, feedstuffs, vegetable material.
4	Determination of As, Be, Cd, Mo, Pb, Sb, Se, V by AAS-Electrothermal Atomization method	SOP 02 C (ČSN EN ISO 15 586; ČSN EN ISO 5961; ČSN 46 5735; ČSN 72 1227; JPP ÚKZÚZ – Analysis of soils II)	Waste, soils, sludge, sediments, sand, fertilizers.
5	Determination of total mercury by AMA analyzer	SOP 03 (ČSN 75 7440; ČSN 46 5735; ČSN 72 1227; JPP ÚKZÚZ – Analysis of soils II; JPP ÚKZÚZ – Analysis of vegetable material)	Water I, purified water and boiler water, aqueous extracts of waste, food, agricultural products, feedstuffs, vegetable material, waste, soils, sludge, sediments, sand, fertilizers.

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Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
6	Determination of dissolved reactive silicon by photometry and their forms (SiO <sub>2</sub> , Silicic acid) by calculation from measured values	SOP 04 (ČSN 75 7481)	Water I, purified water and boiler water.
7	Determination of chemical oxygen demand (COD <sub>Cr</sub> ) by titration	SOP 05 (ČSN ISO 6060)	Water I, aqueous extracts of waste.
8	Determination of biochemical oxygen demand after 5 days (BOD <sub>5</sub> ) by potentiometry	SOP 06 (ČSN EN 1899-1)	Water I, aqueous extracts of waste.
9	Determination of nitrate nitrogen by photometry and nitrate by calculation from measured values	SOP 07 (ČSN ISO 7890-3)	Water I, purified water, boiler water, aqueous extracts of waste.
10	Determination of anionic surfactants by photometry	SOP 08 (ČSN EN 903)	Water I, aqueous extracts of waste.
11	Determination of ammonia nitrogen by photometry, inorganic, total nitrogen and ammonium by calculation from measured values	SOP 09 (ČSN ISO 7150-1)	Water I, purified water, boiler water, aqueous extracts of waste.
12	Determination of phosphorus and phosphate by photometry and P <sub>2</sub> O <sub>5</sub> by calculation from measured values	SOP 10 (ČSN EN ISO 6878)	Water I, purified water, boiler water, aqueous extracts of waste.
13	Determination of nitrite nitrogen by photometry and nitrite by calculation from measured values	SOP 11 (ČSN EN 26 777)	Water I, purified water, aqueous extracts of waste.
14 <sup>(1)</sup>	Determination of polycyclic aromatic hydrocarbons (PAH) by liquid chromatography method (HPLC/FLD)	SOP 12 (ČSN EN ISO 17 993; ČSN 75 7554)	Water I, aqueous extracts of waste.
15 <sup>(1)</sup>	Determination of polycyclic aromatic hydrocarbons (PAH) by liquid chromatography method (HPLC/FLD)	SOP 12 A (ČSN P CEN/TS 16181)	Waste, soils, sludge, sediments, sand, fertilizers.

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Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
16 <sup>(1)</sup>	Determination of polychlorinated biphenyls (PCB), organochlorine pesticides (OCP) by gas chromatography method (GC/ECD)	SOP 13 (ČSN EN ISO 6468)	Water I, aqueous extracts of waste.
17 <sup>(1)</sup>	Determination of polychlorinated biphenyls (PCB), organochlorine pesticides (OCP) by gas chromatography method (GC/ECD)	SOP 13 A (ČSN EN 61 619; ČSN EN 12 766; ČSN EN 15308; ČSN EN 16167)	Waste, soils, sludge, sediments, fertilizers, insulating liquids.
18	Determination of univalent phenols volatilising with water steam by photometry	SOP 15 (ČSN ISO 6439)	Water I, aqueous extracts of waste.
19	Determination of boron by photometry	SOP 16 (ČSN ISO 9390)	Water I, purified water, aqueous extracts of waste.
20	Visual determination of colour	SOP 17 (ČSN EN ISO 7887)	Water I, purified water.
21	Determination of total and easily liberatable cyanides by photometry	SOP 19 (ČSN ISO 6703-2; ČSN 75 7415)	Water I, aqueous extracts of waste.
22	Determination of total and easily liberatable cyanides by photometry	SOP 19 A (ČSN ISO 6703-2; ČSN 75 7415)	Waste, soils, sludge, sediments.
23	Determination of fluoride by potentiometry ISE	SOP 21 (ČSN ISO 10 359-1)	Water I, purified water, aqueous extracts of waste.
24	Determination of humic substances by photometry	SOP 22 (ČSN 75 7536)	Water I.
25	Determination of elements (Ag, Al, Ba, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Ni, Pb, Zn, V) by flame AAS method	SOP 23 (ČSN 75 7385; ČSN ISO 7980; TNV 75 7408; ČSN ISO 8288; ČSN EN 1233; ČSN 75 7400; ČSN EN ISO 12 020)	Water I, purified water, boiler water, aqueous extracts of waste.

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26	Determination of elements (Ag, Al, Ba, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Ni, Pb, Zn, V) by flame AAS method	SOP 23 A (ČSN 75 7385; ČSN ISO 7980; TNV 757408; ČSN ISO 8288; ČSN EN 1233; ČSN 75 7400; ČSN EN ISO 12 020; JPP ÚKZÚZ – Analysis of vegetable material; JPP ÚKZÚZ – Analysis of feedstuffs)	Food, agricultural products, feedstuffs, vegetable material.
27	Determination of elements (Ag, Al, Ba, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Ni, Pb, Zn, V) by flame AAS method and CaO and MgO by calculation from measured values	SOP 23 C (ČSN 75 7385; ČSN ISO 7980; TNV 757408; ČSN ISO 8288; ČSN EN 1233; ČSN 75 7400; ČSN EN ISO 12 020; ČSN 46 5735; ČSN 72 1227; JPP ÚKZÚZ – Analysis of soils)	Waste, soils, sludge, sediments, sand, fertilizers.
28	Determination of suspended solids. Method by filtration through glass fibre filter by gravimetry	SOP 24 (ČSN EN 872)	Water I.
29	Determination of dissolved solids (DS) and dissolved inorganic salts (DIS) by gravimetry	SOP 25 (ČSN 75 7346; ČSN 75 7347)	Water I, aqueous extracts of waste.
30	Determination of base (neutralizing) capacity BNC <sub>4,5</sub> and BNC <sub>8,3</sub> by titration	SOP 26 (ČSN 75 7372)	Water I, boiler water.
31	Determination of chemical oxygen demand with permanganate (COD <sub>Mn</sub> ) by titration	SOP 27 (ČSN EN ISO 8467)	Water I, purified water, boiler water.
32	Determination of Na and K by flame emission spectrometry method	SOP 28 (ČSN ISO 9964-3)	Water I, purified water, aqueous extracts of waste.
33	Determination of Na and K by flame emission spectrometry method	SOP 28 A (JPP ÚKZÚZ – Analysis of vegetable material; JPP ÚKZÚZ – Analysis of feedstuffs)	Feedstuffs, vegetable material, food, agricultural products.

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Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
34	Determination of Na and K by flame emission spectrometry and Na <sub>2</sub> O and K <sub>2</sub> O by calculation from measured values	SOP 28 B (ČSN 72 1227; JPP ÚKZÚZ – Analysis of soils)	Soils, sludge, sediments, fertilizers, biodegradable waste.
35	Determination of the sum of calcium and magnesium. EDTA titrimetric method	SOP 29 (ČSN ISO 6059)	Water I, purified water, boiler water.
36	Determination of absorbance by photometry	SOP 30 (ČSN 75 7360)	Water II.
37*	Determination of free and total chlorine by MERCK / HACH analytical commercial set and bound chlorine by calculation from measured values	SOP 31 (MERCK/HACH firm publication)	Water II, purified water.
38	Determination of dry matter and annealing residue (ash) by gravimetry, water content (moisture) and loss on ignition (combustible matter) by calculation from measured values	SOP 32 (ČSN ISO 11465; ČSN 465735; ČSN 721227; ČSN EN 15934; ČSN EN 15935)	Waste, soils, sludge, sediments, fertilizers, input and output from BPS.
39	Determination of dry matter and annealing residue (ash) by gravimetry, water content (moisture) and loss on ignition (combustible matter) by calculation from measured values	SOP 32 A (JPP ÚKZÚZ – Analysis of vegetable material; JPP ÚKZÚZ – Analysis of feedstuffs)	Feedstuffs, vegetable material, agricultural products.
40	Determination of nonpolar extractives (NEL) by infrared spectrometry method	SOP 33 (HC 404 - BUCK SCIENTIFIC manual)	Water I, boiler water, aqueous extracts of waste.
41	Determination of nonpolar extractives (NEL) by infrared spectrometry method	SOP 33 A (HC 404 - BUCK SCIENTIFIC manual)	Waste, soils, sludge, sediments, fertilizers.
42	Determination of extractives (EL) by infrared spectrometry method	SOP 34 (HC 404 - BUCK SCIENTIFIC manual)	Water I, boiler water, aqueous extracts of waste.
43*	Determination of temperature	SOP 39 (ČSN 75 7342)	Water I, boiler water.

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44 <sub>(1)</sub>	Determination of volatile organic compounds by gas chromatography (GC/ECD + FID)	SOP 40 (ČSN EN ISO 15 680)	Water I, aqueous extracts of waste.
45 <sub>(1)</sub>	Determination of volatile organic compounds by gas chromatography (GC/ECD + FID)	SOP 40 A (ČSN EN ISO 15 680)	Waste, soils, sludge, sediments.
46	Determination of turbidity by nephelometry	SOP 41 (ČSN EN ISO 7027)	Water I, purified water.
47*	Determination of pH by potentiometry	SOP 43 (ČSN ISO 10 523)	Water I, purified water, boiler water, aqueous extracts of waste, impregnation solutions.
48	Determination of pH by potentiometry	SOP 44 (ČSN ISO 10390; ČSN EN 13037; ČSN EN 15933; JPP ÚKZÚZ – Analysis of soils; ČSN 465735)	Waste, soils, sludge, sediments, fertilizers, feedstuffs, input and output from BPS.
49	Determination of acceptable nutrients in soils - Mg, Ca – by flame AAS method	SOP 45 (JPP ÚKZÚZ – Analysis of soils)	Soils, sediments.
50	Determination of acceptable nutrients in soils - K – by flame emission spectrometry	SOP 45 A (JPP ÚKZÚZ – Analysis of soils)	Soils, sediments.
51	Determination of acceptable nutrients in soils - P – by photometry	SOP 45 B (JPP ÚKZÚZ – Analysis of soils)	Soils, sediments.
52	Determination of conductivity by conductometry	SOP 46 (JPP ÚKZÚZ – Analysis of soils; ČSN 465735; ČSN ISO 11265)	Soils, sludge, sediments, fertilizers.
53	Determination of oxidable carbon by photometry	SOP 47 (JPP ÚKZÚZ – Analysis of soils; ČSN 46 5735)	Soils, sludge, sediments, fertilizers.
54	Determination of indecomposable foreign matter	SOP 48 (ČSN 465735)	Fertilizers.
55	Determination of aluminium by photometry	SOP 49 (ČSN ISO 10566)	Water I, purified water, aqueous extracts of waste.
56	Determination of acid neutralizing capacity ANC <sub>4,5</sub> and ANC <sub>8,3</sub> by titration	SOP 50 (ČSN EN ISO 9963-1)	Water I, boiler water.

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57	Determination of adsorbable organically bound halogens (AOX) by coulometry	SOP 51 (ČSN EN ISO 9562)	Water I, aqueous extracts of waste.
58	Determination of adsorbable organically bound halogens (AOX) by coulometry	SOP 51 A (ČSN EN 16166)	Waste, soil, sludge, sediments, fertilizers.
59*	Determination of electrical conductivity	SOP 52 (ČSN EN 27 888)	Water I, purified water, boiler water, aqueous extracts of waste.
60	Determination of extractable organically bound halogens (EOX) by coulometry	SOP 53 (DIN 38414-S17)	Waste, soils, sludge, sediments.
61	Determination of chlorides by titration	SOP 54 (ČSN ISO 9297)	Water I, purified water, aqueous extracts of waste.
62	Determination of total organic carbon (TOC) and dissolved organic carbon (DOC) by infrared spectrometry method	SOP 55 (ČSN EN 1484)	Water I, purified water, aqueous extracts of waste.
63	Determination of total organic carbon (TOC) by infrared spectrometry method	SOP 56 (ČSN EN 15936)	Waste, soils, sludge, sediments, fertilizers.
64	Determination of bromate and chlorite by flow coulometry	SOP 57 (ECA FLOW manual)	Water II.
65*	Determination of redox potential	SOP 58 (ČSN 757367)	Bathing water, ground water.
66*	Preliminary determination of odour and taste	SOP 59 (ČSN EN 1622; TNV 75 7340)	Drinking water, hot, produced, raw water, purified water.
67	Determination of hexavalent chromium by photometry	SOP 60 (ČSN EN ISO 18412)	Water I.
68	Determination of total nitrogen (N) content by titration after distillation	SOP 61 (JPP ÚKZÚZ – Analysis of vegetable material)	Feedstuffs, vegetable material.
69	Determination of total nitrogen (N) content by titration after distillation and calculation of C:N ratio from measured values	SOP 61 A (JPP ÚKZÚZ – Analysis of soils; ČSN 465735)	Soils, sludge, sediments, fertilizers, biodegradable waste, input and output from BPS.
70	Determination of phosphorus (P) content by photometry	SOP 62 (JPP ÚKZÚZ – Analysis of vegetable material)	Feedstuffs, vegetable material.
71	Determination of phosphorus (P) content by photometry and P <sub>2</sub> O <sub>5</sub> by calculation from measured values	SOP 62 A (JPP ÚKZÚZ – Analysis of soils)	Soils, sludge, sediments, fertilizers, biodegradable waste.

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72 <sub>(1)</sub>	Determination of organic acids by ITP method	SOP 63 (JPP ÚKZÚZ – Analysis of vegetable material)	Feedstuffs, biodegradable waste, input and output from BPS.
73	Determination of fibre content by gravimetry	SOP 64 (ČSN ISO 6541; ČSN ISO 16472; ČSN ISO 13906; JPP ÚKZÚZ – Analysis of feedstuffs)	Feedstuffs, biodegradable waste, input and output from BPS.
74	Determination of N-NH <sub>4</sub> <sup>+</sup> by photometry	SOP 65 (JPP ÚKZÚZ – Analysis of soils III)	Soils, sludge, sediments, fertilizers, biodegradable waste.
75	Determination of N-NO <sub>3</sub> <sup>-</sup> by potentiometry ISE and the sum of mineral nitrogen by calculation from measured values	SOP 65 A (JPP ÚKZÚZ – Analysis of soils III)	Soils, sludge, sediments, fertilizers, biodegradable waste.
76	Determination of fat by gravimetry	SOP 66 (JPP ÚKZÚZ – Analysis of feedstuffs)	Feedstuffs, oily seeds, biodegradable waste.
77	Determination of hydrocarbons C <sub>10</sub> to C <sub>40</sub> by gas chromatography (GC/FID)	SOP 67 (ČSN EN ISO 9377-2)	Water I.
78	Determination of hydrocarbons C <sub>10</sub> to C <sub>40</sub> by gas chromatography (GC/FID)	SOP 67 A (ČSN EN 14039; ČSN EN ISO 16703)	Waste, soils, sludge, sediments, fertilizers.
79	Determination of chemical oxygen demand (COD <sub>Cr</sub> ) by photometry	SOP 05 A (ČSN ISO 15705)	Water I, aqueous extracts of waste.
80	Determination of N-NH <sub>4</sub> <sup>+</sup> by titration	SOP 65 B (JPP ÚKZÚZ – Analysis of soils III)	Soils, sludge, sediments, fertilizers, biodegradable waste.
81	Determination of ammonium, ammonia nitrogen and organic nitrogen by titration	SOP 09 A	Water I, purified water, boiler water, aqueous extracts of waste.
82-99	<i>Reserved</i>		
100	Detection and enumeration of <i>Escherichia coli</i> and coliform bacteria by membrane filtration method	SOP 101 (ČSN EN ISO 9308-1; Regulation No.423/2001 Coll.)	Water II.
101	Detection and enumeration of thermotolerant coliform bacteria and <i>Escherichia coli</i> by culture methods	SOP 102 (ČSN 757835)	Waste, ground water.



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102	Detection and enumeration of thermotolerant coliform bacteria and <i>Escherichia coli</i> by culture methods	SOP 102 A (ČSN 757835; AHEM 7/2001; AHEM 1/2008)	Waste, sludge, sediments, fertilizers, sand.
103	Detection and enumeration of intestinal enterococci by membrane filtration method	SOP 103 (ČSN EN ISO 7899-2; Regulation No.423/2001 Coll.)	Water I.
104	Detection and enumeration of intestinal enterococci by culture methods	SOP 103 A (ČSN EN ISO 7899-2; AHEM 7/2001; AHEM 1/2008)	Waste, sludge, sediments, fertilizers, sand.
105	Detection and enumeration of mesophilic bacteria by culture methods	SOP 104 A (ČSN 75 7841)	Biodegradable waste.
106	Enumeration of culturable microorganisms a) at 22 °C; b) at 36 °C by inoculation in a nutrient agar culture medium	SOP 105 (ČSN EN ISO 6222; Regulation No.423/2001 Coll.)	Water I.
107	Detection and enumeration of <i>Clostridium perfringens</i> by membrane filtration method	SOP 106 (ČSN EN ISO 14189)	Water I.
108	Detection and enumeration of <i>Pseudomonas aeruginosa</i> by membrane filtration method	SOP 107 (ČSN EN ISO 16 266)	Water I.
109	Enumeration of <i>Pseudomonas aeruginosa</i> by culture method	SOP 107 A (ČSN EN ISO 13720)	Foodstuffs.
110	Enumeration of coagulase - positive staphylococci by membrane filtration method	SOP 108 (ČSN EN ISO 6888-1; ČSN EN ISO 6888-2)	Water I.
111	Enumeration of <i>Escherichia coli</i> by culture method	SOP 109 (ČSN ISO 16649 -1; ČSN ISO 16649 -2)	Foodstuffs.
112	Determination of microbial contamination of feed and food industry facilities and medical facilities by culture methods	SOP 110 (ČSN 560100: 1970; ČSN EN ISO 4833-1; ČSN EN ISO 6579-1; ČSN EN ISO 11290-1; ČSN EN ISO 21528-2)	Areas and surfaces, epidermis.
113	Determination of microbial contamination of surfaces by culture methods	SOP 110 A (Commission Regulation (EC) No. 1441/2007)	Smears of carcasses.

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114	Enumeration of <i>Clostridium perfringens</i> by membrane filtration method	SOP 111 (ČSN EN ISO 7937; Annex No. 6 of Regulation No. 252/2004 Coll.; Regulation No. 423/2001 Coll.)	Water I.
115	Biological analysis – determination of microscopic image	SOP 112 (ČSN 757712; Regulation No. 423/2001 Coll.)	Water I.
116	Biological analysis – microscopic determination of abioseston	SOP 112 A (ČSN 757713; Regulation No. 423/2001 Coll.)	Water I.
117	Enumeration of total microorganisms by culture method	SOP 113 (Czech Pharmacopoeia 2017)	Purified water.
118	Enumeration of total microorganisms by culture methods	SOP 114 (ČSN EN ISO 4833-1, ČSN EN ISO 4833-2; ČSN 560084)	Food, feedstuffs.
119	Enumeration of coliforms by culture method	SOP 115 (ČSN ISO 4832)	Foodstuffs.
120	Enumeration of yeasts and moulds by culture method	SOP 116 (ČSN ISO 21527-1; ČSN ISO 21527-2; AHEM 1/2003)	Food, feedstuffs, organic fertilizers.
121	Detection and enumeration of <i>Salmonella</i> spp. by culture method	SOP 117 (ČSN EN ISO 6579-1)	Foodstuffs.
122	Detection and enumeration of <i>Salmonella</i> spp. by culture method	SOP 117 A (ČSN EN ISO 6579-1; AHEM 7/2001; AHEM 1/2008)	Waste, sludge, sediments, fertilizers, sand.
123	Detection and enumeration of <i>Salmonella</i> spp. by membrane filtration method	SOP 117 B (ČSN ISO 19250)	Water I.
124	Enumeration of <i>Bacillus cereus</i> by culture method	SOP 118 (ČSN EN ISO 7932)	Foodstuffs.
125	Detection and enumeration of <i>Legionella</i> by membrane filtration method	SOP 119 (ČSN ISO 11731)	Water I.
126	Enumeration of <i>Clostridium perfringens</i> by culture method	SOP 120 (ČSN EN ISO 7937; ČSN EN 26461-1; ČSN EN 26461-2)	Food, feedstuffs.

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127	Enumeration of <i>Clostridium perfringens</i> by culture method	SOP 120 A (ČSN EN ISO 7937; ČSN EN 26461-1; ČSN EN 26461-2)	Waste, sludge, sediments, fertilizers.
128	Testing of efficiency of sterilizers by biological and non-biological indicators	SOP 121 (ČSN EN 867-5; AHEM 1/2014)	Biological and non-biological indicators.
129	Detection and enumeration of <i>Listeria monocytogenes</i> by culture method	SOP 122 (ČSN EN ISO 11290-1; ČSN EN ISO 11290-2)	Foodstuffs.
130	Detection and enumeration of <i>Listeria monocytogenes</i> by mini VIDAS	SOP 124 (mini VIDAS manual)	Foodstuffs, surfaces of food industry facilities.
131	Enumeration of <i>Enterobacteriaceae</i> by culture method	SOP 125 (ČSN EN ISO 21528-2)	Foodstuffs.
132	Detection and enumeration of <i>Enterobacteriaceae</i> by culture method	SOP 125 A (ČSN EN ISO 21528-2)	Waste, fertilizers.
133	Detection and enumeration of <i>Salmonella</i> spp. by mini VIDAS	SOP 126 (mini VIDAS manual)	Food, feedstuffs, surfaces of food and feed industry facilities.
134	Detection and enumeration of <i>Salmonella</i> spp. by mini VIDAS	SOP 126 A (mini VIDAS manual)	Waste, sludge, sediments, fertilizers, sand.
135	Detection and enumeration of coliform bacteria and <i>Escherichia coli</i> by Colilert-18/Quanti-Tray method	SOP 127 (ČSN EN ISO 9308-2; manual to Quanti-Tray Sealer)	Water I.
136-199	<i>Reserved</i>		
200	Determination of the content of quarternary ammonium compounds by titration	SOP 200 (ČSN EN ISO 2871-2)	Impregnation.
201	Chelatometric determination of copper content	SOP 201 (ČSN 49 0609)	Impregnation.
202	Determination of boron content, H <sub>3</sub> BO <sub>3</sub> by potentiometric titration	SOP 202 (ČSN 49 0609)	Impregnation.
203	Determination of tebuconazole, propiconazole, flufenoxuron, fenoxycarb, cypermethrin and permethrin content by liquid chromatography method (HPLC/UV)	SOP 203 (ČSN EN 71-11)	Impregnation.

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204	Determination of 3-iodo-2-propenyl-N-butylcarbamate (IPBC) content by liquid chromatography method (HPLC/UV)	SOP 207 (ČSN EN 71-11)	Impregnation.
205	Determination of bifenthrin by gas chromatography method (GC/ECD)	SOP 208 (ČSN EN 71-11)	Impregnation.
206	Determination of copper by flame AAS method	SOP 210 (ČSN ISO 8288)	Impregnation.
207-299	<i>Reserved</i>		
300	Determination of the inhibition of the mobility of <i>Daphnia magna</i> Straus - Acute toxicity test	SOP 300 (ČSN EN ISO 6341)	Water III, aqueous extracts of waste, chemical substances and mixtures.
301	Freshwater green algal growth inhibition test	<b>SOP 302</b> (ČSN EN ISO 8692)	Water III, aqueous extracts of waste, chemical substances and mixtures.
302	Determination of the acute lethal toxicity of substances to a freshwater fish <i>Poecilia reticulata</i> Peters	<b>SOP 303</b> (ČSN EN ISO 7346-2)	Water III, aqueous extracts of waste, chemical substances and mixtures.
303	Determination of the acute lethal toxicity on the seeds of <i>Sinapis alba</i> , including the preparation of aqueous extract	<b>SOP 304</b> (MP MŽP ČR No. 7 of April 2007)	Water III, aqueous extracts of waste, chemical substances and mixtures.
304	Contact toxicity test - testing of effects on mortality and reproduction of <i>Collembola Folsomia candida</i> and <i>Folsomia fimetaria</i>	<b>SOP 305</b> (ČSN EN ISO 11267; Regulation No. 257/2009 Coll.)	Waste, soils, sludge, sediments, fertilizers, chemical substances and mixtures.
305	Contact toxicity test - testing of effects on mortality, reproduction and growth of Enchytraeidae <i>Enchytraeus albidus</i> and <i>Enchytraeus crypticus</i>	<b>SOP 306</b> (ČSN EN ISO 16387; Regulation No. 257/2009 Coll.)	Waste, soils, sludge, sediments, fertilizers, chemical substances and mixtures.
306	Determination of potential nitrification and inhibition of nitrification – Rapid test by ammonium oxidation	<b>SOP 307</b> (ČSN ISO 15685; Regulation No. 257/2009 Coll.)	Waste, soils, sludge, sediments, fertilizers, chemical substances and mixtures.
307	Test of inhibition of growth of higher plants – on salad <i>Lactuca sativa</i>	<b>SOP 301</b> (ČSN EN ISO 11 269-1; Regulation No. 257/2009 Coll.)	Waste, soils, sludge, sediments, fertilizers, chemical substances and mixtures.

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Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
308	Enumeration of geohelminths (live-cycle stages)	<b>SOP 308</b> (Methodical Guideline MZ 35023/2004 HEM; AHM 1/1986)	Sand.
309	Determination of toxicity on <i>Vibrio fischeri</i> luminescent bacteria	<b>SOP 309</b> (ČSN EN ISO 11348-1; ČSN EN ISO 11348-2)	Water III, aqueous extracts of waste, chemical substances and mixtures.

<sup>1)</sup> Asterisk at the ordinal number identifies the tests, which the Laboratory is qualified to carry out outside the permanent laboratory premises.

Subscript (1) at the test ordinal number identifies the tests, for which the range of determined analytes is specified at the end of this Appendix.

Flexible scope of accreditation

Ordinal numbers of tests
<b>2, 3, 4, 25, 26, 27, 14, 15, 16, 17, 44, 45, 48, 49, 50, 51, 52, 72</b>

The Laboratory is allowed to modify the test methods listed in the Annex within the specified scope of accreditation provided the measuring principle is observed.

The flexible approach to the scope of accreditation cannot be applied to the tests not included in the Annex.

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**Sampling:**

Ordinal number	Sampling procedure name	Sampling procedure identification	Sampled object
1	Drinking water sampling	<b>IP 01</b> (ČSN EN ISO 5667-1; ČSN EN ISO 5667-3; ČSN ISO 5667-5; ČSN EN ISO 5667-14; ČSN EN ISO 11731; ČSN EN ISO 19458; Regulation No. 252/2004 Coll.)	Drinking, raw, treated water, hot water.
2	Purified water sampling	<b>IP 01 A</b> (Czech Pharmacopoeia 2017; ČSN 684063; ČSN EN ISO 19458; ČSN EN ISO 5667-1; ČSN EN ISO 5667-14)	Purified water.
3	Waste water sampling (manually and by automatic sampler)	<b>IP 02</b> (ČSN EN ISO 5667-1; ČSN EN ISO 5667-3; ČSN ISO 5667-10; ČSN EN ISO 5667-14)	Waste water.
4	Surface water sampling	<b>IP 02 A</b> (ČSN EN ISO 5667-1; ČSN EN ISO 5667-3; ČSN ISO 5667-4; ČSN EN ISO 5667-6; ČSN EN ISO 5667-14; ČSN EN ISO 19 458)	Surface water.
5	Ground water sampling (using pump).	<b>IP 03</b> (ČSN EN ISO 5667-1; ČSN EN ISO 5667-3; ČSN ISO 5667-11; ČSN EN ISO 5667-14)	Ground water.
6	Sampling of water from artificial bathing places	<b>IP 04</b> (ČSN EN ISO 5667-1; ČSN EN ISO 19458; ČSN EN ISO 5667-3; ČSN EN ISO 5667-14; ČSN EN ISO 11731; Regulation No. 238/2011 Coll.)	Bathing water.

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Ordinal number	Sampling procedure name	Sampling procedure identification	Sampled object
7	Waste sampling	<b>IP 05</b> (ČSN EN 14899; MP MŽP ČR No. 6 from 2008; ČSN EN ISO 5667-1; ČSN EN ISO 5667-13; ČSN EN ISO 5667-15; ČSN EN 16179; ČSN 465735; Regulation No. 294/2005 Coll.; Regulation No. 437/2016 Coll.; Regulation No. 341/2008 Coll.)	Waste, sludge, input and output from BPS, insulating liquids, composts.
8	Agricultural soil sampling	<b>IP 06</b> (Working procedure for AZZP in CR in season 2017 to 2022; Regulation No. 275/1998 Coll., Regulation No. 335/2017 Coll.)	Soils.
9	Sand box sampling	<b>IP 07</b> (Regulation No. 238/2011 Coll.; Methodical Guideline MZ 35023/2004 HEM; AHM 1/1986)	Sand.
10	Agricultural products sampling for the determination of chemical parameters	<b>IP 08</b> (ČSN 560253)	Agricultural products, fruit and vegetables.
11	Sampling from carcasses for the determination of microbiological parameters.	<b>IP 09 A</b> (ČSN EN ISO 17604; Methodical instruction SVS CR No. 2/2006; Commission Regulation (EC) No. 1441/2007)	Carcasses.
12	Sampling of smears and imprints for the determination of microbial contamination of feed and food industry facilities and medical facilities.	<b>IP 09 B</b> (ČSN ISO 18593; ČSN 560100:1970)	Areas and surfaces, epidermis.
13	Sampling of biological and non-biological indicators for checks of efficiency of sterilizers.	<b>IP 10</b> (ČSN EN 867-5; AHM 1/2014; Regulation No. 306/2012 Coll.)	Biological and non-biological indicators.

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Ordinal number	Sampling procedure name	Sampling procedure identification	Sampled object
14	Sampling of sediments.	<b>IP 12</b> (ČSN EN ISO 5667-1; ČSN EN ISO 5667-15; ČSN ISO 5667-12; ČSN EN 14899; Regulation No. 257/2009 Coll.; Methodical Guideline MŽP CR No. 6 to waste sampling – Bulletin MŽP CR No. 4/2008; Regulation No. 294/2005 Coll.)	Sediments.

**2. Brno working site**

Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
401 <sub>(1)</sub>	Determination of volatile organic compounds - gas chromatography method with ECD, FID and MS detector.	SOP 401 excluding 4.3.2 (ČSN EN ISO 10301; US EPA 8015; US EPA 5021; US EPA 624)	Water I, aqueous extracts of waste.
402 <sub>(1)</sub>	Determination of volatile organic compounds - gas chromatography method with ECD, FID and MS detector.	SOP 401 excluding 4.3.1 (ČSN EN ISO 10301; US EPA 8015; US EPA 5021; US EPA 624)	Waste, soils, sludge, sediments.
403	Determination of hydrocarbons C10-C40 - gas chromatography method with FID detector.	SOP 403 excluding 4.3.2 (ČSN EN ISO 9377-2; ČSN EN 14039; ČSN EN ISO 16703)	Water I, aqueous extracts of waste.
404	Determination of hydrocarbons C10-C40 - gas chromatography method with FID detector.	SOP 403 excluding 4.3.1 (ČSN EN ISO 9377-2; ČSN EN 14039; ČSN EN ISO 16703)	Waste, soils, sludge, sediments.
405 <sub>(1)</sub>	Determination of polychlorinated biphenyls (PCB), phthalates and organochlorine pesticides - gas chromatography method with ECD and MS detector.	SOP 405 excluding 4.3.2 (ČSN EN ISO 6468; US EPA 8082, ČSN EN 12766-1)	Water I, aqueous extracts of waste.



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Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
406 <sub>(1)</sub>	Determination of polychlorinated biphenyls (PCB), phthalates and organochlorine pesticides - gas chromatography method with ECD and MS detector.	SOP 405 excluding 4.3.1 (ČSN EN ISO 6468; US EPA 8082; ČSN EN 12766-1)	Waste, soils, sludge, sediments, organic fertilizers.
407 <sub>(1)</sub>	Determination of polyaromatic hydrocarbons (PAH) - HPLC method with diode array detector and with fluorescence detector.	SOP 407 excluding 4.3.2, 4.3.3 (ČSN 75 7554; ČSN EN ISO 17993; US EPA 8310)	Water I, aqueous extracts of waste.
408 <sub>(1)</sub>	Determination of polyaromatic hydrocarbons (PAH) - HPLC method with diode array detector and with fluorescence detector.	SOP 407 excluding 4.3.1, 4.3.3 (ČSN 75 7554; ČSN EN ISO 17993; US EPA 8310)	Waste, soils, sludge, sediments, organic fertilizers.
409 <sub>(1)</sub>	Determination of polyaromatic hydrocarbons (PAH) - HPLC method with diode array detector and with fluorescence detector.	SOP 407 excluding 4.3.1, 4.3.2 (ČSN 75 7554; ČSN EN ISO 17993; US EPA 8310)	Outdoor and working air.
410	GC/MS identification and determination of volatile and semivolatile organic compounds.	SOP 410 excluding 4.3.2, 4.3.3 (NIST Libraries)	Water I, aqueous extracts of waste.
411	GC/MS identification and determination of volatile and semivolatile organic compounds.	SOP 410 excluding 4.3.1, 4.3.3 (NIST Libraries)	Waste, soils, sludge, sediments, organic fertilizers.
412	GC/MS identification and determination of volatile and semivolatile organic compounds.	SOP 410 excluding 4.3.1, 4.3.2 (NIST Libraries)	Soil air, outdoor and working air, solid sorbents from air sampling.
413	Determination of dry matter and water content by gravimetry.	SOP 413 (ČSN ISO 11465; ČSN EN 15934; ČSN EN 14346)	Soils, earths, sludge, sediments, waste.

Subscript (1) at the test ordinal number identifies the tests, for which the range of determined analytes is specified at the end of this Appendix.

**Annex:**

Flexible scope of accreditation

Ordinal numbers of tests
<b>401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412</b>

The Laboratory is allowed to modify the test methods listed in the Annex within the specified scope of accreditation provided the measuring principle is observed.

The flexible approach to the scope of accreditation cannot be applied to the tests not included in the Annex.

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**Annex: List of analytes validated within the accredited test.**

Test ord. no.	List of analytes
14; 15	Naphthalene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, benzo(g,h,i)perylene, dibenzo(a,h)anthracene, indeno(1,2,3-c,d)pyrene, <b>sum of PAH</b>
16; 17	Congeners – K 28, K 52, K 101, K 118, K 138, K 153, K 180; <b>sum of PCB congeners</b> Hexachlorobenzene, alpha HCH, beta HCH, delta HCH, gamma HCH, heptachlor, p,p'-DDE, p,p'-DDD, p,p'-DDT, o,p'-DDE, o,p'-DDD, o,p'-DDT, 4,4'-methoxychlor, aldrin, endrin, dieldrin, trifluralin, alpha endosulfan, beta endosulfan, cis-heptachlorepoxyde, trans-heptachlorepoxyde, <b>sum of pesticides</b>
44; 45	Benzene, toluene, ethylbenzene, o-xylene, sum of m-xylene + p-xylene, sum of xylenes, styrene, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, dichloromethane, tetrachloromethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, 1,2-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethene (TCE), 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethene (PCE), chloroform, bromodichloromethane, dibromochloromethane, bromoform. <b>sum of THM; sum of BTEX; sum of TOL</b>
72	Acetic acid, lactic acid, butyric acid, propionic acid
401; 402	Benzene, toluene, ethylbenzene, o,m,p-xylene, styrene, chloroethene, 1,1-dichloroethene, trans-1,2-dichloroethene, 1,1-DCA, cis-1,2-dichloroethene, trichloromethane, 1,1,1-TCA, tetrachloromethane, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,1,2-trichloroethane, hexachlorobutadiene, 1,2-dichloroethane, 1,1,2-trichloroethene, bromodichloromethane, hexachloroethane, dibromochloromethane, 1,2-dichloroethane, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, tribromomethane, 1,1,2,2-tetrachloroethene, 1,1,2,2-PCA, acrylamide, epichlorohydrin, dichloromethane, 1,1,2-trichloroethane, naphthalene; <b>sum of THM; sum of BTEX</b>
405; 406	$\alpha$ -HCH, $\beta$ -HCH, $\gamma$ -HCH, $\delta$ -HCH, $\epsilon$ -HCH, HCB, heptachlor, aldrin, isodrin, heptachlorepoxyde trans, oxichlordan, heptachlorepoxyde cis, o,p'-DDE, p,p'-DDE, o,p'-DDD, p,p'-DDD, o,p'-DDT, p,p'-DDT, trans chlordane, endosulfan I, dieldrin, endosulfan II, methoxychlor, mirex, PCB 28, PCB 52, PCB 101, PCB 118, PCB 138, PCB 153, PCB 180, PCT, Bis(2-ethylhexyl) phthalate, Benzyl butyl phthalate, Dibutyl phthalate, Di-n-octyl phthalate, Diethyl phthalate, Dimethyl phthalate, endrin, octachlorostyrene, trifluralin and tetrachlorobenzenes and pentachlorobenzene; <b>sum of PCB congeners; sum of pesticides</b>
407; 408; 409	Naphthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene, indeno(1,2,3-cd)pyrene; <b>sum of PAH</b>

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**Explanations:**

**ABBREVIATIONS**

SOP - Standard Operating Procedure developed according to valid standards and regulations  
TNV - Branch Technical Standard of Water Management  
IP - Internal Procedure (sampling procedure identification)  
ÚKZÚZ – Central Institute for Supervising and Testing in Agriculture  
AHM - Acta Hygienica, Epidemiologica et Microbiologica  
ISE - Ion Selective Electrode  
ITP - Isotachophoresis  
AAS - Atomic Absorption Spectrometry  
JPP - Uniform Working Procedures  
DIS - Dissolved Inorganic Salts  
FLD - Fluorescence Detector  
ECD - Electron Capture Detector  
FID - Flame Ionization Detector  
UV - UV Radiation Detector  
MS - Mass Detector  
GC/MS - Gas Chromatography with Mass Detector  
HPLC - High-Performance Liquid Chromatography  
US EPA – U.S. Environmental Protection Agency  
DIN - Deutscher Institut für Normung  
BPS – Biogas Plants  
AZZP – agronomic testing of agricultural soils  
ČL - Czech Pharmacopoeia  
MP - Methodical Guideline

**TESTED OBJECT**

**Water I**

- drinking (including hot), raw and produced, surface, ground, waste, bottled, mineral and bathing water.

**Water II**

- drinking (including hot), raw and produced, surface, bottled, mineral and bathing water.

**Water III**

- surface, ground, waste water.

**Purified water**

- Aqua purificata, water for dilution of concentrated hemodialysing solutions, water for sterilizers, distilled and demineralized water.

**Aqueous extract of waste**

– extract prepared according to valid legislation - Waste Act No. 185/2001 Coll. as amended by subsequent regulations.

**Fertilizers**

- composts, organic, organo-mineral, mineral, lime fertilizers and soil improvers.

**Waste**

– solid and liquid waste, biodegradable waste, products from waste (shortly products), recyclates.

**Impregnation agents**

- agents for the protection of wood (impregnation solutions) and impregnated wood after extraction and it's aqueous extracts.