



NÁRODNÍ AKREDITAČNÍ ORGÁN

Czech Accreditation Institute  
Public Service Company  
110 00 Praha 1 – Nové Město, Opletalova 41

issues this

## CERTIFICATE OF ACCREDITATION

No. 586 / 2007

to

Testing Laboratory No. 1163

ALS Czech Republic, s.r.o.  
Na Harfě 9/336, 190 00 Praha 9

Scope of accreditation:

Chemical, radiochemical and microbiological analyses of water, soils, waste, sludge, oils, insulating liquids, sediments, rocks, solid samples, air, emission, immission, gases, working environment, biological materials (vegetable and animal tissues), food, animal feeding stuffs; ecotoxicological testing of waste, water and chemical agents; analyses of lubricants and fuels; water sampling to the extent as specified in the appendix to this Certificate which is attached.

RNDr. Luboš Holý, Ing. Tomáš Bouda, CSc., Ing. Emílie Pokorná, Ing. Miloslav Sebránek, MVDr. Zuzana Vrzáková and Ing. Štěpán Kmoníček shall act on behalf of the accredited testing laboratory, and the personnel specified in the appendix to this Certificate shall be responsible for the correctness of relevant test reports.

This Certificate of Accreditation was issued by the Czech Accreditation Institute, Public Service Company, on the basis of assessment of fulfilment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2005

and after having found that the testing laboratory had been qualified for objective and independent testing to the extent of the scope of accreditation.

In its activities, performed within the scope and for the period of validity of this Certificate, the holder of this Certificate is entitled to use the identification "Accredited Testing Laboratory No. 1163" next to its name provided it observes all relevant regulations relating to the activity of accredited testing laboratory including regulations issued by the Czech Accreditation Institute, Public Service Company.

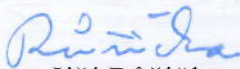
Should it be proved that the holder of this Certificate fails to meet the accreditation criteria decisive for the issue hereof and the obligations conditioning accreditation, the Czech Accreditation Institute, Public Service Company, may either suspend the validity of or withdraw or change this Certificate.

**This Certificate is valid until: 31 March 2012**

and replaces completely the CIAs Certificate of Accreditation No. 143/2007 of 1 March 2007

Prague: 4 October 2007



  
Jiří Růžička

Director  
Czech Accreditation Institute  
Public Service Company

Instruction:

The holder can enter a written objection against this Certificate, provided it concerns the scope of accreditation, in 10 days from the receipt hereof. Timely submitted objection has no dilatory effect.



**Appendix No. 1 of 04.10.2007  
is an integral part of  
Certificate of Accreditation No. 586/2007 of 04.10.2007**

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**Accredited entity:**

**ALS Czech Republic, s.r.o.**  
Na Harfě 336/9, 190 00 Praha 9

**Testing laboratory working sites:**

- 1 Na Harfě 336/9, 190 00 Praha 9
- 2 Bendlova 1687/7, 470 03 Česká Lípa
- 3 V Ráji 906, 530 02 Pardubice
- 4 Leoše Janáčka 975, 410 02 Lovosice

**Test reports shall be signed by:**

Ing. Emílie Pokorná	Laboratory Manager Prague (all reports)
Ing. Pavel Branský	Client Services Manager (all reports)
Ing. Marek Matocha	Inorganic Laboratory Manager (all reports)
Ing. Zdeněk Jirák	Organic Laboratory Manager (all reports)
MVDr. Zuzana Vrzáková	Microbiology Laboratory Manager (all reports)
Ing. Miloslav Sebránek	Laboratory Manager Pardubice (only HRMS reports)
Ing. Jaroslav Jurenka	HRMS Laboratory Supervisor (only HRMS reports)
Ing. Tomáš Bouda, CSc	Laboratory Manager Česká Lípa (all reports)
Ing. Martin Kuntoš	Industrial Testing Coordinator (all reports)
Ing. Viliam Sič	Industrial Testing Manager (only tribology reports)
Ing. Vladimír Nováček	Tribology Laboratory Supervisor (only tribology reports)

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

**Tests: GENERAL CHEMISTRY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
1	Determination of elements (Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cr(VI), Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Se, Sn, Sr, Tl, V, Zn) by inductively coupled plasma atomic emission spectrometry	SOP Q21-340-001/01 (EPA 200.7, ISO 11885)	water, extracts, solid samples, liquid samples, food, biological material (vegetable and animal tissues)

Tests identified by ordinal number without an index are carried out on the site in Prague.



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**Tests: GENERAL CHEMISTRY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
2	Determination of elements (Ag, Al, As, Ba, Be, Cd, Co, Cr, Cr(VI), Cu, I, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, V, Zn, Rh) by inductively coupled plasma mass spectrometry:	SOP Q21-340-002/01 (EPA 200.8, ČSN EN ISO 17294-2)	water, extracts, solid samples, liquid samples, food, biological material (vegetable and animal tissues)
3	Determination of Hg by atomic absorption spectrometry	SOP Q21-340-003/01 (ČSN 46 5735, TNV 75 7440)	water, extracts, solid samples, liquid samples, food, biological material (vegetable and animal tissues)
4 <sup>2)</sup>	Determination of Hg by single-purpose atomic absorption spectrometer	SOP Q21-520-003/00 (TNV 75 7440, ČSN 46 5735)	water, extracts, solid samples
5 <sup>2)</sup>	Determination of elements (Ag, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Na, Ni, Pb a Zn) by flame AAS	SOP Q21-520-001/00 (ČSN ISO 8288, ČSN 75 7400, ČSN EN 1233, ČSN ISO 7980, ČSN ISO 9964, Perkin-Elmer specifications)	water, extracts; solid samples
6 <sup>2)</sup>	Determination of elements (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Se, Sb, Si, Sr, Sn, Te, Th, Ti, Tl, U, V, W, Zn a Zr) by inductively coupled plasma atomic emission spectrometry	SOP Q21-520-041/99 (ČSN EN ISO 11885)	water, extracts; solid samples
7 <sup>2)</sup>	Determination of Kjeldahl nitrogen in water and solid matrixes	SOP Q21-530-110/04 (ČSN EN 25663, ČSN ISO 7150-1,2)	water, extracts, solid samples
8 <sup>2)</sup>	Determination of total sulphur in solid samples by coulometry	SOP Q21-540-071/01	solid samples
9 <sup>2)</sup>	Determination of total phosphorus and orthophosphate by spectrometry	SOP Q21-530-043/01 (ČSN EN ISO 6878)	water, extracts

Tests identified by ordinal number without an index are carried out on the site in Prague

2) The test is carried out on the site in Česká Lípa





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**Tests: GENERAL CHEMISTRY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
10 <sup>2)</sup>	Determination of total cyanide in water by spectrometry	TNV 75 7415	water, extracts
11 <sup>2)</sup>	Determination of easily liberatable cyanide (free cyanide) by spectrometry	ČSN ISO 6703-2	water, extracts
12 <sup>2)</sup>	Determination of total cyanide in solid matrixes by spectrometry	SOP Q21-540-111/04 (TNV 75 7415)	solid samples
13 <sup>2)</sup>	Determination of easily liberatable cyanide (free cyanide) in solid matrixes by spectrometry	SOP Q21-540-094/02 (ČSN ISO 6703-2)	solid samples
14 <sup>2)</sup>	Determination of fluoride (ISE)	SOP Q21-530-051/01 (ČSN ISO 10359-1)	water, extracts
15 <sup>2)</sup>	Determination of free sulfane and sulphide by spectrometry	SOP Q21-540-004/00	water, extracts, solid samples
16 <sup>2)</sup>	Determination of sulphate by continual flow analysis (CFA) method	SOP CZ-OM-SP6-0001 (NEN 6654 (nl))	water, extracts
17 <sup>2)</sup>	Determination of sulphate by gravimetry	SOP Q21-530-040/01	water, extracts
18 <sup>2)</sup>	Determination of nitrite, ammonia and ammonium by continual flow analysis (CFA) method	SOP Q21-530-072/01 (ČSN EN ISO 13395, ČSN EN ISO 11732)	water, extracts
19 <sup>2)</sup>	Determination of the sum of nitrite and nitrate nitrogen by continual flow analysis (CFA) method	SOP Q21-530-113/04 (ČSN EN ISO 13395)	water, extracts
20 <sup>2)</sup>	Determination of ammonium by spectrometry	ČSN ISO 7150-1	water, extracts
21 <sup>2)</sup>	Determination of nitrite by spectrometry	SOP Q21-530-039/01 (ČSN EN 26777)	water, extracts

2) The test is carried out on the site in Česká Lípa



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**Tests: GENERAL CHEMISTRY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
22 <sup>2)</sup>	Determination of dissolved chloride, nitrate and sulphate by liquid chromatography of ions in water	SOP Q21-530-032/00 (ČSN EN ISO 10304-1, ČSN EN ISO 10304-2)	water, extracts
23 <sup>2)</sup>	Determination of chloride by potentiometric titration	SOP Q21-540-005/00	water, extracts, solid samples
24 <sup>2)</sup>	Determination of chloride mercuryometry	SOP Q21-530-084/01	water, extracts
25 <sup>2)</sup>	Determination of extractable organically bound halogens (EOX)	SOP Q21-540-007/00 (DIN 38409-H8, DIN 38414-S17)	water, extracts, solid samples
26 <sup>2)</sup>	Determination of adsorbable organically bound halogens (AOX) in solid samples	DIN 38414-S18	solid samples - waste, sediments, sludge, soils
27 <sup>2)</sup>	Determination of total halogens (TX)	SOP Q21-540-009/00 (US EPA Method 9076)	oils, organic solvents, waste, soils
28 <sup>2)</sup>	Determination of adsorbable organically bound halogens (AOX) in aqueous solutions	ČSN EN ISO 9562	water, extracts
29 <sup>2)</sup>	Determination of monobasic phenols in solid matrixes (spectrometric method after distillation)	SOP Q21-540-074/01 (ČSN ISO 6439)	solid samples
30 <sup>2)</sup>	Determination of monobasic phenols in water (spectrometric method after distillation)	SOP Q21-540-098/02 (ČSN ISO 6439)	water, extracts
31 <sup>2)</sup>	Determination of anionic surfactants by measurement of the methylene blue index (MBAS)	SOP Q21-540-055/02 (ČSN EN 903)	water, extracts
32 <sup>2)</sup>	Determination of absorbance	ČSN 75 7360	water, extracts
33 <sup>2)</sup>	Determination of turbidity	SOP Q21-530-089/02 (ČSN EN ISO 7027)	water, extracts
34 <sup>2)</sup>	Determination of humic substances	SOP Q21-530-117/05 (TNV 75 7536)	drinking, surface water

2) The test is carried out on the site in Česká Lípa





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Tests: GENERAL CHEMISTRY

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
35 <sup>2)</sup>	Determination of water colour	SOP Q21-530-035/01 (ČSN EN ISO 7887)	water, extracts
36 <sup>2)</sup>	Determination of electrical conductivity	ČSN EN 27888	water, extracts
37 <sup>2)</sup>	Determination of pH	ČSN ISO 10523	water, extracts
38 <sup>2)</sup>	Determination of basic neutralizing capacity (BNC)	SOP Q21-530-087/01 (ČSN 75 7372)	water, extracts
39 <sup>2)</sup>	Determination of acid neutralizing capacity (ANC)	SOP Q21-530-048/01 (ČSN EN ISO 9963-1)	water, extracts
40 <sup>2)</sup>	Determination of chemical oxygen demand using dichromate (COD <sub>Cr</sub> )	SOP Q21-530-083/01 (TNV 75 7520)	water, extracts
41 <sup>2)</sup>	Determination of chemical oxygen demand using permanganate (COD <sub>Mn</sub> )	ČSN EN ISO 8467 + change Z1	drinking, surface water
42 <sup>2)</sup>	Determination of biochemical oxygen demand after n days (BOD <sub>n</sub> ) - Part 1: Dilution method with addition of allylthiourea	SOP Q21-530-053/01 (ČSN EN 1899-1)	raw water, surface and waste water, extracts
43 <sup>2)</sup>	Determination of biochemical oxygen demand after n days (BOD <sub>n</sub> ) - Part 2: Method for undiluted samples	SOP Q21-530-054/01 (ČSN EN 1899-2)	raw water, surface and waste water, extracts
44 <sup>2)</sup>	Determination of dissolved oxygen	ČSN EN 25814	drinking, surface and waste water, extracts
45	Determination of total dry matter	SOP Q21-330-001/01 (ČSN ISO 11465)	sludge, sediments, waste, soils, solid samples
46 <sup>2)</sup>	Determination of dry matter and water content in solid samples	SOP Q21-540-086/01 (ČSN ISO 11465)	solid samples
47 <sup>2)</sup>	Determination of ash-free dry mass in solid samples	SOP Q21-540-086/01	solid samples.
48 <sup>2)</sup>	Sludge characteristics - Determination of ash-free dry matter	ČSN EN 12879	sludge and technological sludge products

2) The test is carried out on the site in Česká Lípa

The test no. 45 is carried out on the sites in Prague and Pardubice



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**Tests: GENERAL CHEMISTRY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
49 <sup>2)</sup>	Sludge characteristics - Determination of total substances and water content	ČSN EN 12880	sludge and technological sludge products
50 <sup>2)</sup>	Determination of water in liquid and solid matrixes - Karl Fischer method	SOP Q21-540-100/02 (ČSN ISO 760)	solid and liquid samples
51 <sup>2)</sup>	Determination of ash-free dry matter of silicate materials	ČSN 72 0103	silicate materials
52 <sup>2)</sup>	Determination of suspended solids, suspended annealed solids and evaporation residue	SOP Q21-530-079/01	water, extracts
53 <sup>2)</sup>	Determination of suspended solids using glass fibre filters	ČSN EN 872	water, extracts
54 <sup>2)</sup>	Determination of dissolved solids (RL105, RL550 /RAS/) using glass fibre filters	ČSN 75 7346	water, extracts
55 <sup>2)</sup>	Determination of total carbon (TC), total organic carbon (TOC), total inorganic carbon (TIC) and carbonate in samples by coulometry	SOP Q21-540-071/01 (ČSN ISO 10694, ČSN EN 13137)	solid samples
56	Determination of total organic carbon (TOC) and dissolved organic carbon (DOC) in water	CZ_SOP_D06_02_056 (ČSN EN 1484)	water, extracts
57	Determination of nonpolar extractive substances by infrared spectrometry	SOP Q21-330-002/01 (ČSN 75 7505)	water, extracts
58	Determination of extractive and nonpolar extractive organic substances by infrared spectrometry in solid matrixes	SOP Q21-330-008/04 (ČSN 75 7505, ČSN 75 7506)	soils, solid waste, sludge, sediments, solid samples
59	Determination of extractive substances by infrared spectrometry in water	SOP Q21-330-009/04 (ČSN 75 7506)	water, extracts

Tests identified by ordinal number without an index are carried out on the site in Prague

2) The test is carried out on the site in Česká Lípa





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**Tests: GENERAL CHEMISTRY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
60	Determination of alpha modification of silicon dioxide in respirable dust by infrared spectrometry method	SOP Q21-330-006/03 (NIOSH 7602)	dust
61 <sup>1)</sup>	Field determination of free chlorine in water by DPD method	SOP CZ-OM-SP6-0006 (method of HACH COMPANY, USA)	drinking water
62 <sup>1)</sup>	Field measurement of temperature in water	ČSN 75 7342	water
63 <sup>1)</sup>	Field measurement of electrical conductivity in water	SOP CZ-OM-SP6-0007 (ČSN EN 27888)	water
64 <sup>1)</sup>	Field determination of pH in water	SOP CZ-OM-SP6-0008 (ČSN ISO 10523)	water
65 <sup>4)</sup>	Sensory analysis of water	CZ_SOP_D06_04_065 (TNV 75 7340, ČSN EN 1622:2007)	drinking water, surface water
66	Determination of ammonium in water by flow injection analysis (FIA) and spectrometric detection	CZ_SOP_D06_02_066 (ČSN ISO 11732)	water, extracts
67	Determination of orthophosphate in water by flow injection analysis (FIA) and spectrometric detection	CZ_SOP_D06_02_067 (ČSN ISO 15681-1)	water, extracts
68	Determination of dissolved fluoride, chloride, nitrite, bromide, nitrate and sulphate in water by liquid chromatography of ions (IC)	CZ_SOP_D06_02_068 (ČSN ISO 10304-1, ČSN ISO 10304-2)	water, extracts
69	Reserved		
70	Determination of total and suspended solids (TSS) in drinking, surface and waste water	CZ_SOP_D06_02_070 (ČSN EN 872)	water, extracts

The test identified by ordinal number without an index is carried out on the site in Prague

- 1) The test is carried out outside/also outside the laboratory premises
- 4) The test is carried out on the site in Lovosice





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**Tests: GENERAL CHEMISTRY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
71	Determination of total dissolved solids (TDS) in drinking, surface and waste water	CZ_SOP_D06_02_071 (ČSN 75 7346)	water, extracts
72	Determination of acid neutralizing capacity (ANC)	CZ_SOP_D06_02_072 (ČSN EN ISO 9963-1)	water, extracts
73	Determination of basic neutralizing capacity (BNC)	CZ_SOP_D06_02_073 (ČSN 75 7372)	water, extracts
74	Determination of turbidity	CZ_SOP_D06_02_074 (ČSN EN ISO 7027)	water, extracts
75	Determination of electrical conductivity	CZ_SOP_D06_02_075 (ČSN EN 27 888)	water, extracts
76	Determination of chemical oxygen demand using dichromate (CODCr)	CZ_SOP_D06_02_076 (TNV 75 7520)	water, extracts
77	Reserved		
78	Reserved		
79	Determination of water colour by spectrometry	CZ_SOP_D06_02_079 (ČSN EN ISO 7887)	water, extracts
80	Determination of nitrite and ammonia nitrogen by CFA method	CZ_SOP_D06_02_080 (ČSN EN ISO 11732, ČSN EN ISO 13395)	water, extracts
81	Determination of nitrite and nitrate nitrogen by CFA method	CZ_SOP_D06_02_081 (ČSN EN ISO 13395)	water, extracts
82 - 99	Reserved		

The test identified by ordinal number without an index is carried out on the site in Prague



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**Tests: GENERAL CHEMISTRY OF FOOD**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
100	Determination of N-substances by Kjeldahl method	SOP Q21-430-018/03	food, animal feeding stuffs, food supplements
101	Determination of fat	SOP Q21-430-019/03	meat, meat products, animal feeding stuffs
102	Determination of dry matter	SOP Q21-430-021/03	food, animal feeding stuffs, food supplements
103	Determination of nitrite by spectrometry	SOP Q21-430-007/01	meat products, curing salts
104	Determination of chloride	SOP Q21-430-009/01	food, animal feeding stuffs, food supplements
105	Determination of pH	SOP Q21-390-006/04 (ČSN ISO 10523)	water, aqueous solutions and extracts
106	Animal and vegetable fats and oils - determination of acid value and acidity	ČSN ISO 660	animal vegetable fats and oils
107	Determination of phosphate by indirect method	SOP Q21-430-012/01	meat, milk products
108	Determination of ash in food at 550 °C	SOP Q21-430-014/01	food
109	Determination of fibre by oxidation hydrolysis method	SOP Q21-430-023/03	food, animal feeding stuffs
110	Determination of pH in biological material	SOP Q21-430-016/01 (ČSN ISO 2917)	food, animal feeding stuffs
111	Determination of sand in biological material	SOP Q21-430-017/01	food, animal feeding stuffs
112	Determination of relative density of liquids	SOP Q21-390-004/04 (ČSN EN 1131)	low-viscosity liquids
113	Titration determination of acidity	SOP Q21-390-005/04 (ČSN ISO 750)	fruit juices, water-soluble food
114	Determination of moisture content – Entrainment method	CZ_SOP_D06_02_114 (ČSN ISO 939)	spices and condiments
115 - 149	Reserved		

Tests identified by ordinal number without an index are carried out on the site in Prague





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**Tests: ORGANIC CHEMISTRY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
150	Determination of oil hydrocarbons by GC-FID method	SOP Q21-330-012/05 (EN 14039)	soils, sludge, waste
151	Determination of oil hydrocarbons by GC-FID method	SOP Q21-330-011/04 (ČSN EN ISO 9377-2)	water, extracts
152	Determination of content of hydrocarbons BTEX-C35 (RU-screening) by GC-FID method	SOP Q21-330-014/06 (NT Techn Report 329 (1996))	water, aqueous extracts, soils, waste and sludge
153	Determination of aromatic, halogenated hydrocarbons and hydrocarbons with boiling points 36-126°C	SOP Q21-320-003/01 (NIOSH 1501, NIOSH 1003, NIOSH 1500)	sorption tube
154	Determination of volatile organic substances by thermal desorption method	SOP Q21-320-007/04 (EPA TO-17)	sorption tube
155	Determination of volatile organic substances	SOP Q21-320-002/01 (EPA 624) (EPA 8260)	water, extracts, soils, sediments, sludge, waste
156	Determination of volatile organic substances	SOP Q21-320-004/01 (EPA 601, EPA 624)	water, extracts, soils, sediments, sludge, waste
157	Determination of organic contaminants by SPIMFAB methodology	SOP Q21-350-014/01 (SPIMFAB)	water, soils, sediments, sludge
158	Determination of chlorinated phenols	SOP Q21-350-005/01 (EPA 8041, EPA 3500, DIN ISO 14154)	water, soils, sorption materials
159	Determination of phthalate	SOP Q21-350-001/01 (EPA 8061A)	water, soils
160	Determination of phenoxyalcanoic acids	SOP Q21-350-012/01 (DIN 38407- 14, ČSN EN ISO 15913)	water, soils
161	Determination of semivolatile organic substances by GC/MS method	SOP Q21-350-016/02 (EPA 8270, EPA 8131, EPA 8091, ČSN EN ISO 6468)	water, soils

Tests identified by ordinal number without an index are carried out on the site in Prague



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**Tests: ORGANIC CHEMISTRY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
162	Determination of polycyclic aromatic hydrocarbons	SOP Q21-380-002/02 (EPA 550)	drinking water, table water, suckling water
163	Determination of polycyclic aromatic hydrocarbons	SOP Q21-380-003/02 (EPA 610)	underground water, surface water, waste water
164	Determination of polycyclic aromatic hydrocarbons	SOP Q21-380-003/02 (EPA 610, EPA 3550)	soils, sediments, sludge, waste
165	Determination of polycyclic aromatic hydrocarbons	SOP Q21-380-001/02 (EPA TO 13)	working air
166	Determination of polychlorinated biphenyls-congener analysis	SOP Q21-350-002/01 (DIN 38407, Part 2)	water, aqueous extracts
167	Determination of polychlorinated biphenyls-congener analysis	SOP Q21-350-002/01 (EPA 8082)	soils, sediments, waste, sealing material
168	Determination of polychlorinated biphenyls-congener analysis	SOP Q21-350-015/02 (ČSN EN 12766-1)	oil hydrocarbons, used oils, insulating liquids
169	Determination of organochlorine pesticides	SOP Q21-350-004/01 (ČSN EN ISO 6468, EPA 8081, DIN 38407-2)	water, extracts, soils, waste, sludge, sediments, oils, sorption materials
170 <sup>3)</sup>	Determination of polychlorinated dibenzo- <i>p</i> -dioxines and dibenzofuranes from stationary emission sources	SOP CZ-OM-SP5-0001 (EPA Method 23A)	emission
171 <sup>3)</sup>	Determination of polychlorinated dibenzo- <i>p</i> -dioxines and dibenzofuranes in immission	SOP CZ-OM-SP5-0002 (EPA TO-9A)	immission
172 <sup>3)</sup>	Determination of coplanar polychlorinated biphenyls in stationary emission sources	SOP CZ-OM-SP5-0003 (JIS K 0311, modified)	emission and immission samples, filters, liquid and solid sorption matrixes, condensates, flue ash
173 <sup>3)</sup>	Determination of polychlorinated biphenyls by isotope dilution method with the use of HRGC-HRMS	SOP CZ-OM-SP5-0004 (EPA 1668, modified)	water, solid samples-waste, soils, sediments, sludge, chemical products, SRMD, biological matrixes

Tests identified by ordinal number without an index are carried out on the site in Prague

3) The test is carried out on the site in Pardubice





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**Tests: ORGANIC CHEMISTRY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
174 <sup>3)</sup>	Determination of polychlorinated dibenzo- <i>p</i> -dioxines and dibenzofuranes in emission samples	SOP CZ-OM-SP5-0005 (ČSN EN 1948-2,3)	emission samples, filters, liquid and solid sorption matrixes, condensate, fly ash
175 <sup>3)</sup>	Determination of tetra- to octa-chlorinated dioxines and furanes by isotope dilution method with the use of HRGC-HRMS	SOP CZ-OM-SP5-0006 (EPA 1613)	water, solid samples – waste, soils, sediments, sludge, SMPD, biological matrixes
176 <sup>3)</sup>	Polychlorinated dibenzodioxines (PCDD) and polychlorinated dibenzofuranes (PCDF) by high resolution gas chromatography/high resolution mass spectrometry (HRGC-HRMS) method	SOP CZ-OM-SP5-0007 (US EPA 8290)	water, solid and liquid abiotic and biotic samples, soil, sediments, stuff, fly ash, sludge, distillation residue, liquid fuels, tissue
177 <sup>3)</sup>	Determination of polybrominated diphenylethers by isotope dilution method with the use of HRGC-HRMS	CZ_SOP_D06_06_177 (EPA 1614)	water, solid samples – waste, soils, sediments, sludge, chemical products, SPMD, biological matrixes, food, animal feeding stuffs
178	Determination of alkylphenols by GC/MS method	CZ_SOP_D06_03_178 (ČSN EN ISO 18857-1)	underground, surface and drinking water
179-199	Reserved		

Tests identified by ordinal number without an index are carried out on the site in Prague

3) The test is carried out on the site in Pardubice



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**Tests: ORGANIC CHEMISTRY OF FOOD**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
200	Determination of the content of 3-chlor-1,2-propandiol	SOP Q21-390-001/04 (LMBG 52.02(1))	spices
201	Determination of the content of terpene	SOP Q21-390-003/04 (AOAC 972.55)	non-chocolate water-soluble candies
202	Determination of fatty acids	SOP Q21-390-007/04 (ČSN EN ISO 5509)	fat emulsions, oils
203	Multiresidual determination of pesticides in food	SOP Q21-390-009/05 (LMBG 00.00 34 DFG S19)	food products with high content of water and their extracts
204	Determination of the content of congeners of polychlorinated biphenyls and organochlorine pesticides	SOP Q21-390-002/04 (ČSN EN 1528)	food with high content of fat
205	Determination of phenyl urea herbicides	SOP CZ-OM-SP3-0010 (ČSN EN ISO 11369)	drinking, underground and surface water
206	Determination of retinol and alpha-tocopherol	SOP CZ-OM-SP3-0002 (ČSN EN 128 23-1, ČSN EN 128 22)	fats, fatty food, non-fatty food
207	Determination of vitamin C (ascorbic acid and ascorbyl-6-palmitate) in food and food supplements	SOP CZ-OM-SP3-0003 (ČSN EN 14130)	beverages, candy, tablets and food supplements, fruit, vegetables
208	Determination of vitamin D (D2,D3) in food and food supplements	SOP CZ-OM-SP3-0012 (ČSN EN 12821)	fats, fatty and non-fatty food products, tablets and food supplements
209	Determination of substitute sweeteners	SOP CZ-OM-SP3-0006 (ČSN EN 12856)	beverages, milk products, jams and food supplements
210	Determination of caffeine, theobromine and theophylline	SOP CZ-OM-SP3-0004 (ČSN EN 12856)	beverages, tea, coffee, cocoa and chocolate
211	Determination of the content of preserving agents in food by HPLC method	SOP CZ-OM-SP3-0005 (ČSN EN 12856)	food (beverages, jams, vegetable and fruit sauces and pastes, mustard, fatty and milk products) and food supplements
212	Determination of the content of aflatoxin B <sub>1</sub> , B <sub>2</sub> , G <sub>1</sub> and G <sub>2</sub> in food and animal feedings stuffs	SOP CZ-OM-SP3-0007 (ČSN EN 12955, ČSN EN 14123)	food with low moisture content (spices, nuts, cocoa, cereals) and animal feeding stuffs

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**Tests: ORGANIC CHEMISTRY OF FOOD**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
213	Determination of the content of ochratoxin A in food and animal feedings stuffs	SOP CZ-OM-SP3-0008 (ČSN EN 14133, ČSN EN 14132 )	food with low moisture content (spices, nuts, cocoa, cereals) and animal feeding stuffs
214	Determination of zearalenon in cereals and animal feeding stuffs	SOP CZ-OM-SP3-0009	cereals and animal feeding stuffs
215	Determination of aflatoxin M1 by HPLC method	CZ_SOP_D06_03_215 (EN ISO 14501:1998)	milk, dried milk and products from milk and dried milk
216- 249	Reserved		

Tests identified by ordinal number without an index are carried out on the site in Prague

**Tests: MICROBIOLOGY OF WATER**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
250 <sup>4)</sup>	Enumeration of mesophilic bacteria	ČSN 75 7841	surface, underground, waste, pool water
251 <sup>4)</sup>	Enumeration of psychrophilic bacteria	ČSN 75 7842	surface, underground, waste, pool water
252 <sup>4)</sup>	Enumeration of intestinal enterococci	ČSN EN ISO 7899-2	drinking, pool, surface, waste, disinfected, packed water
253 <sup>4)</sup>	Enumeration of culturable microorganisms: a) at 22 Degrees C b) at Degrees C	ČSN EN ISO 6222	drinking, packed, natural, mineral water
254 <sup>4)</sup>	Detection and enumeration of thermotolerant coliform bacteria and Escherichia coli	TNV 75 7835	drinking, surface, underground, pool, waste water

4) The test is carried out on the site in Lovosice



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**Tests: MICROBIOLOGY OF WATER**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
255 <sup>4)</sup>	Detection and enumeration of Escherichia coli and coliform bacteria	ČSN EN ISO 9308 – 1	drinking water
256 <sup>4)</sup>	Enumeration of Pseudomonas aeruginosa in water	ČSN EN 12780	drinking, packed, natural mineral, pool, surface, waste water
257 <sup>4)</sup>	Enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species)	ČSN EN ISO 6888-1	pool, surface, waste water
258 <sup>4)</sup>	Enumeration of yeasts Candida	SOP Q21-420-032/01 (Hausler, J.: Microbiological Culture Methods of Quality Inspection", Volume III, 1995)	pool, surface, waste water
259 <sup>4)</sup>	Enumeration of Clostridium perfringens	Regulation 252/2004 Coll., Annex 6	drinking, packed, pool, natural mineral water
260 <sup>4)</sup>	Detection of Salmonella	TNV 75 7855	drinking, surface, underground, pool, waste water
261 <sup>4)</sup>	Determination of microscopic image	ČSN 75 7712	drinking water
262 <sup>4)</sup>	Determination of abioseston	ČSN 75 7713	drinking water
263 - 299	Reserved		

4) The test is carried out on the site in Lovosice





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**Tests: MICROBIOLOGY OF FOOD**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
300 <sup>4)</sup>	Horizontal method for the enumeration of microorganisms	ČSN EN ISO 4833	food, animal feeding stuffs
301 <sup>4)</sup>	General guidance for the enumeration of coliforms	ČSN ISO 4832	food, animal feeding stuffs
302 <sup>4)</sup>	Enumeration of enterococci	SOP Q21-420-001/01 (Veterinary Laboratory Methodology - Hygiene of Food, SVS ČR 1990)	food, animal feeding stuffs, biological material
303 <sup>4)</sup>	General guidance for the enumeration of <i>Bacillus cereus</i>	ČSN EN ISO 7932	food, animal feeding stuffs
304 <sup>4)</sup>	Horizontal method for the enumeration of coagulase-positive staphylococci ( <i>Staphylococcus aureus</i> and other species)	ČSN EN ISO 6888-1	food, animal feeding stuffs
305 <sup>4)</sup>	Horizontal method for the enumeration of <i>Clostridium perfringens</i>	ČSN EN ISO 7937	food, animal feeding stuffs
306 <sup>4)</sup>	Horizontal method for the detection of <i>Salmonella</i>	ČSN EN ISO 6579	food, animal feeding stuffs
307 <sup>4)</sup>	Horizontal method for the detection of <i>Salmonella</i>	SOP CZ-OM-SP4-0002	sludge, biological material
308 <sup>4)</sup>	Determination of inhibiting substances by Delvotest method	SOP Q21-420-003/01 (Veterinary Laboratory Methodology of SVS ČR 1990)	milk
309 <sup>4)</sup>	Horizontal method for the detection of <i>Listeria monocytogenes</i>	ČSN EN ISO 11290-1	food, animal feeding stuffs
310 <sup>4)</sup>	General guidance for the enumeration of yeasts and moulds	ČSN ISO 7954	food, animal feeding stuffs
311 <sup>4)</sup>	General guidance for the detection of Enterobacteriaceae	ČSN ISO 8523	food, animal feeding stuffs
312 <sup>4)</sup>	Species typing of Enterobacteriaceae	SOP Q21-420-008/01 Enterotest set of LACHEMA, and Bergey's Manual 8th Edition, 1971)	biological material, food

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**Tests: MICROBIOLOGY OF FOOD**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
313 <sup>4)</sup>	General guidance for the detection of <i>Vibrio parahaemolyticus</i>	ČSN ISO 8914	food, animal feeding stuffs
314 <sup>4)</sup>	Horizontal method for the enumeration of mesophilic bacteria of lactic fermentation	ČSN ISO 15214	food, animal feeding stuffs
315 <sup>4)</sup>	Detection of <i>Shigella</i>	ČSN EN ISO 21567	food, animal feeding stuffs
316 <sup>4)</sup>	Horizontal method for the detection of thermotolerant <i>Campylobacter</i>	ČSN ISO 10272	food, animal feeding stuffs
317 <sup>4)</sup>	Horizontal method for the detection of presumptive pathogenic <i>Yersinia enterocolitica</i>	ČSN EN ISO 10273	food, animal feeding stuffs
318 <sup>4)</sup>	General guidance for the enumeration of <i>Enterobacteriaceae</i>	ČSN ISO 21528-2	food, animal feeding stuffs
319 <sup>4)</sup>	Horizontal method for the enumeration of beta-glucuronidase-positive <i>Escherichia coli</i>	ČSN ISO 16649-2	food, animal feeding stuffs
320 <sup>4)</sup>	Horizontal method for the detection and enumeration of <i>Listeria monocytogenes</i>	ČSN EN ISO 11290-2	food, animal feeding stuffs
321 <sup>4)</sup>	Enumeration of potentially toxinogenic moulds on special media	SOP Q21-420-027/01 (Veterinary Laboratory Methodology; Ostrý, V.: Guidance for Identification of Toxinogenic Microfungi. 1999)	food, animal feeding stuffs, biological material
322 <sup>4)</sup>	Detection of common pathogenic micro-organisms by prime culture and propagation	SOP Q21-420-028/01 (Veterinary Laboratory Methodology, 1990)	food, animal feeding stuffs, biological material
323 <sup>4)</sup>	Determination of microbial contamination of areas, surface of equipment and packages using smear method	ČSN 56 0100 article 145	areas, surfaces, packaging material, surface of food

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**Tests: MICROBIOLOGY OF FOOD**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
324 <sup>4)</sup>	Determination of thermotolerant coliform bacteria	SOP CZ-OM-SP4-0003 (Acta hygienica, epidemiologica et microbiologica. 7/2001)	sludge, biological material
325 <sup>4)</sup>	Determination of enterococci	SOP CZ-OM-SP4-0004 (Acta hygienica, epidemiologica et microbiologica. 7/2001)	sludge, biological material
326 - 349	Reserved		

4) The test is carried out on the site in Lovosice

**Tests: ECOTOXICOLOGY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
350 <sup>2)</sup>	Determination of the acute lethal toxicity of substances to a freshwater fish	CZ_SOP_D06_07_350 (ČSN EN ISO 7346-1, ČSN EN ISO 7346-2)	surface, underground and waste water, extracts of waste, solutions and extracts of chemical substances and agents
351 <sup>2)</sup>	Determination of the inhibition of the mobility of <i>Daphnia magna</i> Straus - Acute toxicity test	CZ_SOP_D06_07_351 (ČSN EN ISO 6341)	surface, underground and waste water, extracts of waste, solutions and extracts of chemical substances and agents
352 <sup>2)</sup>	Freshwater algal growth inhibition test	CZ_SOP_D06_07_352 (ČSN EN ISO 8692)	surface, underground and waste water, extracts of waste, solutions and extracts of chemical substances and agents
353 <sup>2)</sup>	Toxicity test on seeds of white mustard ( <i>Sinapis alba</i> )	CZ_SOP_D06_07_353 (Ministry of Environment Bulletin, Volume XVII, Part 4/2007, p. 13-14; Waste Department Guidance for the determination of waste ecotoxicity, Annex 1 "Test on the seeds of white mustard ( <i>Sinapis alba</i> )")	surface, underground and waste water, extracts of waste, solutions and extracts of chemical substances and agents
354 <sup>2)</sup>	Determination of the inhibitory effect of water samples on the light emission of <i>Vibrio fischeri</i>	ČSN EN ISO 11348-3	surface, underground and waste water, extracts, percolation water, saline and brackish water
355 - 359	Reserved		

2) The test is carried out on the site in Česká Lípa



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**Tests: RADIOLOGY**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
360 <sup>2)</sup>	Total volume activity alpha	ČSN 75 7611	water, extracts
361 <sup>2)</sup>	Total volume activity beta	ČSN 75 7612	water, extracts
362 <sup>2)</sup>	Determination of radium 226	ČSN 75 7622	water, extracts
363 <sup>2)</sup>	Determination of radon 222	ČSN 75 7624	water, extracts
364 <sup>2)</sup>	Determination of uranium	ČSN 75 7614	water, extracts
365 <sup>2)</sup>	Determination of tritium activity concentration (liquid scintillation counting method)	ČSN ISO 9698	water, extracts
366 <sup>2)</sup>	Determination of polonium 210	ČSN 75 7626	water, extracts
367 - 399	Reserved		

2) The test is carried out on the site in Česká Lípa

**Tests: Tribology**

Ordinal number	Test procedure/method name	Test procedure/method identification	Tested object
400	Determination of kinematic viscosity	CZ_SOP_D06_05_400 (ČSN EN ISO 3104)	liquid fuels, lubricating oils
401	Calculation of viscosity index	CZ_SOP_D06_05_401 (ČSN ISO 2909)	liquid fuels, lubricating oils
402	Determination of liquid cleanliness code by particle counter	CZ_SOP_D06_05_402	liquid fuels, lubricating oils
403	Determination of base number	CZ_SOP_D06_05_403 (ČSN ISO 3771)	lubricating oils, additives to lubricants
404	Determination of neutralization number by potentiometric titration	CZ_SOP_D06_05_404 (ČSN ISO 6619)	lubricating oils, additives to lubricants
405	Determination of water content. Coulometric method	CZ_SOP_D06_05_405 (ASTM D 6304, ČSN EN ISO 12937)	liquid fuels, lubricating oils

Tests identified by ordinal number without an index are carried out on the site in Prague





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**Sampling records shall be signed by:**

<b>Martin Šidlo</b>	sampler
<b>Šárka Lehmannová</b>	sampler
<b>Radek Perun</b>	sampler
<b>Jan Houfek</b>	sampler
<b>Martin Řihák</b>	sampler
<b>Bc. Michal Pecka</b>	sampler

**Sampling:**

Ordinal number	Sampling procedure name	Sampling procedure identification	Sampled object
1 <sup>1)</sup>	Surface and underground water simple sampling	CZ-OM-SP6-0003 (ČSN EN ISO 5667-3, ČSN ISO 5667-4, -6, -11 and -14)	surface and underground water
2 <sup>1)</sup>	Waste water simple sampling	CZ-OM-SP6-0004 (ČSN EN ISO 5667-3, ČSN ISO 5667-10, -18 and -14)	waste water
3 <sup>1)</sup>	Drinking and hot water sampling	CZ-OM-SP6-0002 (ČSN EN ISO 5667-3 ČSN ISO 5667-5 a -14) Regulation 252/2004 Coll. as amended)	drinking water and hot water
4 <sup>1)</sup>	Waste water composite sampling	CZ-OM-SP6-0005 (ČSN EN ISO 5667-3, ČSN ISO 5667-10 and -14)	waste water

1) The test is carried out outside/also outside the laboratory premises



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**Used abbreviations:**

DIN	Deutscher Institut fuer Normung
EPA	Environmental Protection Agency
ISO	International Organization For Standardisation
NEN	Nederlands Normalisatie-Institut
NIOSH	National Institute for Occupational Safety and Health
SPIMFAB	SPI MILJOSANERINGSFOND AB
TNV	Branch technical standard of water management
US EPA	U.S. Environmental Protection Agency
Water	Drinking, surface, and waste water
Extracts	Aqueous extracts of soils and waste according to valid legislation
Solid samples	Waste, sediments, sludge, soils, rocks
Sorption materials	Working air, emission, immission
SPMD	Semi-Permeable Membrane Device
Biological matrixes	Food, animal feeding stuffs, blood

**Annex:**

<b>Flexibility type:</b> pursuant to MPA 30-04-05	<b>Ordinal numbers of tests</b>
Type 1	65 114 203, 212, 213, 214 350, 351, 352, 353, 354
Type 2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 66, 67, 68, 70, 71, 72, 73, 74, 75, 76, 79, 80, 81 105, 112, 113 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 178 200, 201, 202, 204, 205, 206, 207, 208, 209, 210, 211, 215 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325 360, 361, 362, 363, 364, 365, 366
Type 3	177

Type 1 – The laboratory can include updated standardised and/or technically equivalent test methods in given scope of accreditation provided the measuring principle is observed.

Type 2 – includes type 1. In addition, the laboratory can modify the existing test methods (both standardised and own developed procedures) and/or extend the range of tested parameters in given scope of accreditation provided the measuring principle is observed.

Type 3 – includes types 1 and 2. Furthermore, the laboratory can develop other test methods within the accredited tests.

No changes can be made by the laboratory in the tests not included in the Annex (fixed scope of accreditation)

