



EA MLA Signatory  
Český institut pro akreditaci, o.p.s.  
Olšanská 54/3, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

## CERTIFICATE OF ACCREDITATION

No. 453/2018

**Výzkumný ústav pro hnědé uhlí a.s.**  
**with registered office tř. Budovatelů 2830/3, 434 01 Most, Company Registration No. 44569181**

to the Testing Laboratory No. 1078  
Testing Laboratory

Scope of accreditation:

Chemical analyses of solid fuels, water, waste, rocks, combustion and desulfurization products and products made of them, building materials, measurement of immissions and noise, diagnostics of machinery, sampling of gaseous, liquid and solid substances to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2005

In its activities performed within the scope and for the period of validity of this Certificate, the Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 659/2017 of 10. 11. 2017, or any administrative acts building upon it.

The Certificate of Accreditation is valid until: **10. 11. 2022**

Prague: 27. 8. 2018



  
**Jiří Růžička**  
Director  
Czech Accreditation Institute  
Public Service Company

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*The Laboratory is qualified to update 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 at the Laboratory from the Quality Manager.*

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

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

**Tests:**

Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
1	Chemical and physical analysis of water and aqueous extracts <sup>2)</sup>		waste and building materials
1.01	Determination of pH by potentiometry	IMP 046 (ČSN ISO 10523)	Mine, waste, surface, well water and aqueous extracts <sup>2)</sup>
1.02	Determination of total, dissolved and suspended solids by gravimetry	IMP 044 (ČSN 757346, ČSN 757358, ČSN EN 872)	Mine, waste, surface, well water and aqueous extracts
1.03	Determination of electrical conductivity	IMP 047 (ČSN EN 27888)	Mine, waste, surface, well water and aqueous extracts
1.04	Determination of dissolved oxygen by membrane electrode	IMP 049 (ČSN EN ISO 5814)	Mine, waste, surface, well water and aqueous extracts
1.05	Determination of hardness by titration	ČSN ISO 6059	Surface and ground water
1.06	Determination of calcium by titration	ČSN ISO 6058	Surface and ground water
1.07	Determination of chlorides by titration	ČSN ISO 9297	Mine, surface water and aqueous extracts
1.08	Determination of anions by ion chromatography <sup>3)</sup>	IMP 055 (ČSN EN ISO 10304-1, ČSN EN ISO 10304-3)	Mine, waste, surface, well water and aqueous extracts
1.09	Determination of the chemical oxygen demand – COD <sub>Cr</sub> (titration method)	IMP 048 (ČSN ISO 6060)	Mine, waste, surface, well water and aqueous extracts
1.10	Determination of total cyanide by spectrophotometry	IMP 097 (ČSN ISO 6703-1)	Mine, waste, surface, well water and aqueous extracts
1.11	Determination of biochemical oxygen demand by dilution method	IMP 050 (ČSN EN 1899-1, ČSN EN 1899-2)	Mine, waste, surface, well water and aqueous extracts
1.12	Determination of ammonium by spectrophotometry	IMP 051 (ČSN ISO 7150-1)	Mine, waste, surface, well water and aqueous extracts



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Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
1.13	Determination of metals by flame AAS <sup>4)</sup>	IMP 002-1 (ČSN ISO 8288, ČSN EN 1233, ČSN EN ISO 5961, ČSN ISO 7980, ČSN EN ISO 12020, ČSN ISO 9964-1, ČSN ISO 9964-2, ČSN ISO 9964-3, ČSN 75 7400)	Mine, waste, surface, well water and aqueous extracts
1.14	Determination of metals by AAS – hydride method <sup>5)</sup>	IMP 002-3 (ČSN EN ISO 11969, ČSN P ISO/TS 17379-2)	Mine, waste, surface, well water and aqueous extracts
1.15	Determination of metals by AAS – electrothermal method <sup>6)</sup>	IMP 002-2 (ČSN EN 1233, ČSN EN ISO 5961, ČSN EN ISO 12020, ČSN 757400)	Mine, waste, surface, well water and aqueous extracts
1.16	Determination of mercury by AMA analyzer	IMP 004 (ČSN 75 7440, manual to the analyzer)	Mine, waste, surface, well water and aqueous extracts
1.17	Determination of hydrocarbons C <sub>10</sub> to C <sub>40</sub> by GC - FID method	IMP 095 (ČSN EN ISO 9377-2)	Mine, waste, surface, well water and aqueous extracts
1.18	Determination of AOX by coulometry	IMP 064 (ČSN EN ISO 9562)	Mine, waste, surface, well water and aqueous extracts
1.19	Determination of EOX by coulometry	IMP 092/LPOV – part A (manual to the analyzer)	Mine, waste, surface, well water and aqueous extracts
1.20	Determination of humic substances by spectrophotometry	IMP 093/LPOV (ČSN 75 7536)	Mine, waste, surface, well water and aqueous extracts
2	Analysis of solid fuels		
2.01	Determination of water content by gravimetry	IMP 073 (ČSN 44 1377, ČSN P CEN/TS 15414-1 ČSN EN ISO 18134-1)	Solid fuels <sup>8)</sup>
2.02	Determination of ash content by gravimetry	IMP 068 (ČSN ISO 1171, ČSN EN 15403, ČSN EN ISO 18122)	Solid fuels <sup>8)</sup>
2.03	Determination of total sulphur content by ESCHKA method	ČSN 44 1379	Solid fuels <sup>8)</sup>



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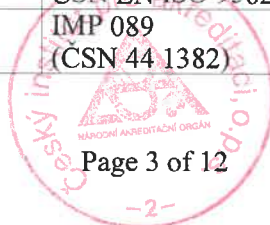
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2.04	Determination of gross calorific value by calorimetry and calculation of net calorific value	IMP 072 (ČSN ISO 1928, ČSN EN 15400, ČSN EN 14918, ČSN DIN 51900-1, ČSN DIN 51900-3)	Solid fuels <sup>8)</sup> and liquid fuels
2.05	Determination of hydrogen, nitrogen, sulphur and carbon by combustion method with TCD detection	IMP 096 (ČSN ISO 29541 ČSN EN 15407, ČSN EN ISO 16948)	Solid fuels <sup>8)</sup>
2.06	Determination of the content of water, volatile combustible matter and ash by thermogravimetric method by TGA analyzer	IMP 99 (ČSN 44 1377, ČSN ISO 1171, ČSN 44 1351)	Solid fuels <sup>8)</sup>
2.07	Determination of volatile combustible matter by gravimetry	IMP 080 (ČSN 44 1351, ČSN EN 15402, ČSN EN ISO 18123)	Solid fuels <sup>8)</sup>
2.08	Determination of sulphur forms by gravimetric method	IMP 079 ČSN ISO 157	Solid fuels <sup>8)</sup>
2.09	Determination of ash fusibility in oxidation atmosphere	IMP 078 (ČSN ISO 540, ČSN P CEN/TS 15404, ČSN P CEN/TS 15370-1)	Solid fuels <sup>8)</sup>
2.10	Analysis of solid fuel ash <sup>9)</sup> by gravimetry	IMP 077 – 5.2.1, 5.2.7 (ČSN 44 1358)	Solid fuels <sup>8)</sup>
2.11	Analysis of solid fuel ash <sup>10)</sup> by titration	IMP 077 – 5.2.2, 5.2.3, 5.2.5, 5.2.6 (ČSN 44 1358)	Solid fuels <sup>8)</sup>
2.12	Analysis of solid fuel ash <sup>11)</sup> by spectrophotometry	IMP 077 – 5.2.4, 5.2.10 (ČSN 44 1358)	Solid fuels <sup>8)</sup>
2.13	Analysis of solid fuel ash <sup>12)</sup> by flame AAS	IMP 077 – 5.2.8, 5.2.9 (ČSN 44 1358)	Solid fuels <sup>8)</sup>
2.14	Determination of the content of humic acids by gravimetry	IMP 086 (ČSN ISO 5073)	Solid fuels <sup>8)</sup>
2.15	Determination of the product yield of low temperature carbonization by gravimetry	ČSN ISO 647	Solid fuels <sup>8)</sup>
2.16	Gravimetric determination of extract of brown coal and lignite by organic solvents	IMP 076 (ČSN 44 1365)	Brown coal, lignite
2.17	Determination of chlorine by coulometric titration	IMP 088 – part B (ČSN EN 14077, ČSN EN ISO 9562)	Solid fuels <sup>8)</sup>
2.18	Determination of fluorine content by ISE	IMP 089 (ČSN 44 1382)	Solid fuels <sup>8)</sup>





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Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
2.19	Determination of trace elements by flame AAS <sup>4)</sup>	IMP 003-1 (ČSN ISO 8288, ČSN EN 1233, ČSN EN ISO 5961, ČSN ISO 7980, ČSN EN ISO 12020, ČSN ISO 9964-1, ČSN ISO 9964-2, ČSN ISO 9964-3, ČSN 75 7400, ČSN EN 15410, ČSN EN ISO 16967)	Solid fuels <sup>8)</sup>
2.20	Determination of trace elements by AAS – hydride method <sup>5)</sup>	IMP 003-3 (ČSN EN ISO 11969, ČSN P ISO/TS 17379-2, ČSN EN 15411, ČSN EN ISO 16968)	Solid fuels <sup>8)</sup>
2.21	Determination of trace elements by AAS – electrothermal method <sup>6)</sup>	IMP 003-2 (ČSN EN 1233, ČSN EN ISO 5961, ČSN EN ISO 12020, ČSN 757400, ČSN EN 15410, ČSN EN 15411, ČSN EN ISO 16967, ČSN EN ISO 16968)	Solid fuels <sup>8)</sup>
2.22	Determination of mercury by AMA analyzer	IMP 004 (manual to the analyzer, ČSN 75 7440)	Solid fuels <sup>8)</sup>
3	Chemical analysis of rocks		
3.01	Determination of chlorine by coulometric titration	IMP 088 – part B (ČSN EN 14077, ČSN EN ISO 9562)	Rocks
3.02	Determination of trace elements by flame AAS <sup>4)</sup>	IMP 003-1 (ČSN ISO 8288, ČSN EN 1233, ČSN EN ISO 5961, ČSN ISO 7980, ČSN EN ISO 12020, ČSN ISO 9964-1, ČSN ISO 9964-2, ČSN ISO 9964-3, ČSN 75 7400)	Rocks

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Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
3.03	Determination of aromatic hydrocarbons BTEXS by GC – FID method	IMP 013 (ČSN EN ISO 15680)	Rocks
3.04	Determination of fluorine by ISE	IMP 089 (ČSN 44 1382)	Rocks
3.05	Determination of PCB congeners by GC – ECD method <sup>7)</sup>	IMP 040 (ČSN EN 61619)	Rocks, waste, insulation liquids
3.06	Determination of chlorinated hydrocarbons trichloroethylene and tetrachloroethylene by GC - ECD method	IMP 058 (ČSN 75 7550, ČSN EN ISO 10301)	Rocks, sediments, sludge, waste
3.07	Determination of water by gravimetry	IMP 056 (ČSN EN 12880)	Rocks, waste
3.08	Determination of free CaO by titration	IMP 063 (ČSN 72 2080, cl. 9.18)	Rocks, ash, granulates
3.09	Determination of hydrocarbons C <sub>10</sub> to C <sub>40</sub> by GC - FID method	IMP 095 (ČSN EN 14039)	Rocks and sludge
3.10	Determination of trace elements by AAS – hydride method <sup>5)</sup>	IMP 003-3 (ČSN EN ISO 11969, ČSN P ISO/TS 17379-2)	Rocks
3.11	Determination of trace elements by AAS – electrothermal method <sup>6)</sup>	IMP 003-2 (ČSN EN 1233, ČSN EN ISO 5961, ČSN EN ISO 12020, ČSN 757400)	Rocks
3.12	Determination of mercury by AMA analyzer	IMP 004 (manual to the analyzer, ČSN 75 7440)	Rocks
4	Waste		
4.01	Determination of hydrocarbons C <sub>10</sub> to C <sub>40</sub> by GC - FID method	IMP 095 (ČSN EN 14039)	Sludge, sediments, waste and combustion products
4.02	Determination of aromatic hydrocarbons – benzene, toluene, xylenes, ethylbenzene by GC – FID method	IMP 013 (ČSN EN ISO 15680)	Sludge, sediments, waste and combustion products
4.03	Determination of mercury by AMA analyzer	IMP 004 (manual to the analyzer, ČSN 75 7440)	Sludge, sediments, waste and combustion products
4.04	Determination of metals by flame AAS <sup>4)</sup>	IMP 003-1 (ČSN ISO 8288, ČSN EN 1233, ČSN EN ISO 5961, ČSN ISO 7980, ČSN EN ISO 12020,	Sludge, sediments, waste and combustion products

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		ČSN ISO 9964-1, ČSN ISO 9964-2, ČSN ISO 9964-3, ČSN 75 7400)	
4.05	Determination of chlorine by coulometry	IMP 088 – part B (ČSN EN 14077, ČSN EN ISO 9562)	Sludge, sediments, waste and combustion products
4.06	Determination of trace elements by AAS – hydride method <sup>5)</sup>	IMP 003-3 (ČSN EN ISO 11969, ČSN P ISO/TS 17379-2)	Sludge, sediments, waste and combustion products
4.07	Determination of fluorine by ISE	IMP 089 (ČSN 44 1382)	Sludge, sediments, waste and combustion products
4.08	Determination of trace elements by AAS – electrothermal method <sup>6)</sup>	IMP 003-2 (ČSN EN 1233, ČSN EN ISO 5961, ČSN EN ISO 12020, ČSN 757400)	Sludge, sediments, waste and combustion products
4.09	Determination of EOX by coulometry	IMP 092/LPOV – Part B (manual to the analyzer)	Sludge, sediments, waste and combustion products
6	Air		
6.01*	Determination of the concentration of airborne dust (aerosol particles) in air by gravimetry	IMP 108/LIEM (ČSN EN ISO 13137)	Outdoor and indoor air
6.02*	Gravimetric determination of dustfall using sedimentation	IMP 109/LIEM (Government Regulation No. 350/2002 Coll., Annex No. 6, Part C)	Outdoor, indoor and workplace air
6.03*	Determination of total and respirable dust in air by gravimetry	IMP 107/LIEM (ČSN EN 481, ČSN EN 689, ČSN EN ISO 13137, ČSN ISO 7708, Government Regulation No. 361/2007 Coll.)	Workplace and non-workplace air
6.04*	Continuous measurement of the concentration of airborne dust (aerosol particles) PM10 and PM2.5 in air by radiometric and hybrid (radiometry and nephelometry) methods	IMP 104/LIEM (ČSN EN 12341, Horiba manual, Thermo Electron Corp. manual)	Outdoor and indoor air
7.	Soils and building materials		
7.01	Determination of grain size	IMP 1/LTH (ČSN EN ISO 17892-4, ČSN EN 933-1,	Soils, granulates, desulfurization products, aggregates,

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Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
		ČSN ISO 2591-1, ČSN 44 1340, ČSN ISO 1953, ČSN EN 17827-2, ČSN 72 2080 cl. 11.3, ČSN 72 2071 cl 11.3)	granular materials, solid fuels, black coal, solid biofuels, fluid ash, ash
7.02*	Inspection of the compaction of soils and backfills	ČSN 72 1006 - direct methods, indirect test methods A, B, D	Soils, ash, granulates
7.03*	Determination of mass per unit volume Laboratory and field methods	IMP 3/LTH (ČSN EN ISO 17892-2, ČSN 72 1010 cl. A, C, D1, ČSN EN 12390-7)	Soils, ash, granulates
7.04	Laboratory determination of apparent density (specific gravity) of solid particles	IMP 4/LTH (ČSN EN ISO 17892-3, ČSN EN 1097-7, ČSN 72 2080 cl. 11.5, ČSN 72 2071 cl. 11.5)	Soils, granulates, aggregates, fluid ash, ash
7.05	Laboratory determination of moisture and water by drying method by gravimetry	IMP 5/LTH (ČSN EN ISO 17892-1, ČSN EN ISO 18134-1, ČSN P CEN/TS 15414-1, ČSN EN 1097-5, ČSN 72 2080 cl. 11.4, ČSN 72 2071 cl. 11.4)	Soils, ash, granulates solid fuels, aggregates, fluid ash, ash
7.06	Laboratory determination of Atterberg limits	ČSN CEN ISO/TS 17892-12	Soils
7.07	Laboratory determination of compactibility	ČSN EN 13286-2	Soils, ash, granulates
7.08	Laboratory determination of uniaxial compressive strength	IMP 8/LTH (ČSN CEN ISO/TS 17892-7, ČSN EN 1926)	Soils, ash, granulates aggregates
7.09	Phase analysis by X-ray diffractometry	IMP 9/LTH (manual to the analyzer)	Materials in powder form
7.10	Determination of shear strength parameters by torsion shear tester	ČSN CEN ISO/TS 17892-10	Soils materials, ash, granulates
7.11	Determination of durability by sodium sulphate	ČSN 72 1176, p. III.A	Backfilling materials, aggregates, granulates, artificial aggregates, bound mixtures
7.12	Determination of permeability	ČSN CEN ISO/TS 17892-11	Soils, ash, granulates
7.13	Determination of the bearing ratio CBR and IBI	ČSN EN 13286-47	Soils, ash, granulates





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Ordinal number <sup>1)</sup>	Test procedure/method name	Test procedure/method identification	Tested object
7.14	Determination of fluidity by flow table test	ČSN EN 12350-5	Building mixtures, backfilling materials
7.15	Determination of frost resistance	ČSN 736124-1 Annex A	Backfilling materials, aggregates, granulates, artificial aggregates, bound mixtures
7.16	Determination of water absorption	ČSN EN 1097-6	Backfilling materials, aggregates, granulates
7.17	Determination of compressive strength of test specimens	ČSN EN 12390-3 ČSN EN 13286-41	Backfilling materials building mixtures
7.18	Determination of bulk density	ČSN EN 1097-3 ČSN EN ISO 17828 ČSN P CEN/TS 15401 ČSN 72 2080 cl. 11.2 ČSN 72 2071 cl. 11.2	Backfilling materials, aggregates, granulates, artificial aggregates, solid fuels, fluid ash, ash
7.19	Determination of compactness of non-cohesive soils	ČSN 72 1018	Soils
8.	Noise		
8.01*	Measurement of noise in a working environment	ČSN EN ISO 9612	Noise in a working environment
8.02*	Measurement of noise in a non-working environment	ČSN ISO 1996-1 ČSN ISO 1996-2	Noise in a non-working environment
8.03*	Noise emitted by machinery and equipment	ČSN EN ISO 3744 ČSN EN ISO 3746 ČSN EN ISO 11 201 ČSN EN ISO 11 202 ČSN EN ISO 11 204 Government Regulation No. 9/2002 Coll., Annex 3, excl. cl. 11	Machines and equipment
9.	Machinery		
9.01*	Measurement of the balancing of giant machines and determination of the centre of gravity	IMP 001/LTD	Mining and stowing giant machines, bucket wheel loaders
9.02*	Measurement of safety equipment of giant machines	IMP 002/LTD	Mining and stowing giant machines, bucket wheel loaders, DPD equipment, mining equipment of floating machines



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Annex:

Flexible scope of accreditation

<b>Ordinal numbers of tests</b>
1.01 - 1.20, 2.01 - 2.22, 3.01 - 3.12, 4.01 - 4.09, 6.01 - 6.04, 7.01 - 7.19, 8.01 - 8.03

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
10.	Sampling of solid, liquid and gaseous materials		
10.1A	Sampling of water by manual surface sampling	IMP 106.1/ZAL part A (ČSN ISO 5667-4, ČSN EN ISO 5667-6)	Surface water
10.1B	Sampling of waste and mine water by manual sampling	IMP 106.1/ZAL part B (ČSN ISO 5667-10)	Waste and mine water
10.1C	Sampling of water by manual underground sampling	IMP 106.1/ZAL part C (ČSN ISO 5667-11)	Ground water
10.2	Sampling of liquids and pasty materials	IMP 106.1/ZAL part D (MoE Guideline for waste sampling; 04/2008; 101 pages)	Liquids and pasty materials
10.3	Sampling of solid and bulk materials, aggregates	IMP 106.3/ZAL (ČSN 72 1008:1982, ČSN 01 5111, ČSN 72 1152, ČSN EN 932-1, MoE Guideline for waste sampling; 04/2008; 101 pages)	Solid and bulk materials, aggregates
10.4	Sampling of total and respirable fraction of dust	IMP 107/LIEM (ČSN EN 481, ČSN EN 689, ČSN EN ISO 13137, ČSN ISO 7708, Government Regulation No. 361/2007 Coll.)	Workplace and non-workplace air
10.5	Sampling of airborne dust by manual sampling	IMP 108/LIEM (ČSN EN ISO 13137)	Outdoor and indoor air
10.6	Sampling of dustfall	IMP 109/LIEM (Government Regulation No. 350/2002 Coll., Annex No. 6, part C)	Outdoor, indoor and working air
10.7	Sampling of solid fuels	IMP 106.2/ZAL ČSN 44 1304, ČSN 44 1308, ČSN ISO 5069-1, ČSN ISO 13909-3 ČSN EN 15442 ČSN EN 14778	Solid fuels <sup>8)</sup>

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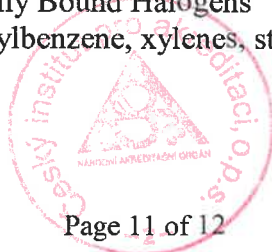
**List of measuring stations:**

Measuring stations	Code of the test carried out
Braňany	6.04
Březno	6.04
Černovice	6.04
Droužkovice	6.04
Duchcov	6.04
Chotějovice	6.04
Kadaň – výsypka	6.04
Ledvice	6.04
Mariánské Radčice	6.04
Lom 2	6.04
Málkov - Zelená	6.04
Osek	6.04
Spořice	6.04

- 1) Asterisk at the ordinal number identifies the tests carried out outside/also outside the laboratory premises.
- 2) Aqueous extract according to the Regulation No. 294/2005 Coll.
- 3) F<sup>-</sup>, Cl<sup>-</sup>, Br<sup>-</sup>, I<sup>-</sup>, NO<sub>2</sub><sup>-</sup>, NO<sub>3</sub><sup>-</sup>, SO<sub>4</sub><sup>2-</sup>, PO<sub>4</sub><sup>3-</sup>
- 4) metals Ba, V, Ni, Cr, Pb, Cd, Zn, Ag, Cu, Al, Fe, Mn, Co, Ca, Mg, Na, K, Sr
- 5) metals As, Sb, Se
- 6) metals Ba, Be, V, Ni, Cr, Pb, Cd, Ag, Al, Co, Tl, Sn, Mo, Te
- 7) congeners: PCB 28, PCB 52, PCB 110, PCB 118, PCB 152, PCB 138, PCB 180
- 8) solid fuels: coke, black coal, brown coal, lignite, alternative fuels, biofuels
- 9) Determination: SiO<sub>2</sub>, SO<sub>3</sub>
- 10) Determination: Fe<sub>2</sub>O<sub>3</sub>, Al<sub>2</sub>O<sub>3</sub>, CaO, MgO
- 11) Determination: TiO<sub>2</sub>, P<sub>2</sub>O<sub>5</sub>
- 12) Determination: MnO, Na<sub>2</sub>O, K<sub>2</sub>O

**Abbreviations used:**

IMP – Internal Guideline  
COD – Chemical Oxygen Demand  
PCB – Polychlorinated Biphenyls  
AOX – Adsorbable Organically Bound Halogens  
EOX – Extractable Organically Bound Halogens  
BTEXS – benzene, toluene, ethylbenzene, xylenes, styrene  
GC – Gas Chromatography  
IC – Ion Chromatography





**The Appendix is an integral part of  
Certificate of Accreditation No. 453/2018 of 27/08/2018**

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

**Výzkumný ústav pro hnědé uhlí a.s.**

Testing Laboratory

tř. Budovatelů 2830/3, 434 01 Most

ISE	– Ion Selective Electrode
CBR	– California Bearing Ratio
DPD	– Long-Distance Belt Transport
AAS	– Atomic Absorption Spectrometry
X-ray	– X-ray
UV	– Ultraviolet
FID	– Flame Ionization Detector
ECD	– Electron Capture Detector (Ni <sup>63</sup> )
TCD	– Thermal Conductivity Detector

