Accredited entity according to ČSN EN ISO/IEC 17025:2018:

SGS Czech Republic, s.r.o.

CAB number 1152.1, Testing Laboratory U Trati 42, 100 00, Praha 10

Testing laboratory locations:

Laboratory Praha
 Laboratory Kolín
 U Trati 42, Praha 10, 100 00
 Ovčárecká 314, Kolín V, 280 00

The laboratory applies a flexible approach to the scope of accreditation.

The current list of activities carried out within the flexible scope is available on the laboratory's website www.dobrapumpa.cz in the form "List of activities within the flexible scope of accreditation".

The laboratory is qualified to carry out standalone sampling.

Detailed information on activities within the scope of accreditation (determined analytes / tested subject) is given in the section "Specification of the scope of accreditation".

Tests:

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Tested subject	Degrees of freedom ³
11	Determination of density by oscillating U-tube	SOP 27 (ČSN EN ISO 12185; ASTM D4052)	Petroleum and petroleum products, biofuels	A, D
21	Determination of density by densitometer	SOP 6 (ČSN EN ISO 3675)	Petroleum and petroleum products, including their degradation products, lubricants, oils, service fluids, biofuels and their components	A, D
32	Determination of kinematic viscosity by capillary viscometer and calculation of viscosity index from measured values	SOP 40 (ČSN EN ISO 3104) SOP 41 (ČSN ISO 2909)	Petroleum and petroleum products, including their degradation products, lubricants, oils, service fluids, biofuels and their components	A, D
42	Determination of kinematic viscosity, viscosity index and density by Stabinger viscometer	SOP 3 (ASTM D7042; ČSN EN 16896; ČSN ISO 23581)	Petroleum and petroleum products, including their degradation products, lubricants, oils, service fluids, biofuels and their components	A, D
51, 2	Determination of water content by coulometry - Karl Fischer method	SOP 51, method A (ČSN EN ISO 12937)	Liquid fuels including biofuels, lubricants, oils, technical fluids, petroleum products	A, D
6 ^{1, 2}	Determination of water content by coulometry - Karl Fischer method	SOP 51, method B (ČSN EN 15489)	Ethanol including E-85 fuel	A, D

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Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Tested subject	Degrees of freedom ³
7 ^{1, 2}	Determination of water content by coulometry - Karl Fischer method	SOP 51, method C (ASTM D6304)	Petroleum products, lubricating oils and additives	A, D
81	Determination of water content by distillation	SOP 58 (ČSN EN ISO 9029)	Petroleum and petroleum products	A, D
91,2	Determination of flash point - Pensky-Martens closed cup method	SOP 29 (ČSN EN ISO 2719)	Distilled fuels, oils, FAME	A, D
10^{2}	Determination of flash point - Cleveland open cup method	SOP 31 (ČSN EN ISO 2592)	Petroleum products	A, D
11 ¹	Determination of flash point - Abel-Pensky closed cup method	SOP 92 (ČSN EN 57:1995; DIN 51755)	Petroleum products and other liquids	A, D
121	Determination of flow point	SOP 126 (ČSN EN ISO 3016; ASTM D97; ASTM D6749)	Petroleum products, oils	A, D
131	Determination of refractive index refractometrically and calculation of urea content from measured values	SOP 129 (ČSN 65 0341; ČSN ISO 22241-2, Annex C)	Liquid chemical products	A, D
14 ¹	Determination of conductivity of fuels by conductometry	SOP 130 (ČSN EN 15938)	E-85 fuel, ethanol	A, D
15 ^{1,2}	Determination of distillation characteristics at atmospheric pressure and calculation of cetane index from measured values	SOP 26 (ČSN EN ISO 3405; ASTM D86) SOP 35 (ČSN EN ISO 4264)	Light and middle- distillates and petroleum- based fuels	A, B, D
16¹	Determination of distillation characteristics by micro distillation method	SOP 125 (ČSN EN 17306; ASTM D7345)	Light and middle- distillates	A, B, D
171	Determination of filterability temperature	SOP 36 (ČSN EN 116)	Diesel fuels, fuel oils, FAME, distillate fuels	A, D
181	Determination of paraffin precipitation temperature	SOP 38 (ČSN EN ISO 3015; ASTM D7683; ASTM D2500)	Petroleum products	A, D

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Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Tested subject	Degrees of freedom ³
19 ¹	Determination of vapour pressure	SOP 11 (ČSN EN 13016-1)	Petroleum products	A, B, D
202	Determination of engine octane number by motor method	SOP 110, method A (ČSN EN ISO 5163; ASTM D2700)	Gasoline	A, B, D
212	Determination of engine octane number by research method	SOP 110, method B (ČSN EN ISO 5164; ASTM D2699)	Gasoline	A, B, D
222	Determination of engine cetane number	SOP 104 (ČSN EN ISO 5165; ASTM D613)	Diesel fuel, unconventional fuels	A, B, D
231	Determination of water content by potentiometry - Karl Fischer method	SOP 51, method D (ČSN ISO 760)	Petroleum and petroleum products, oils	A, D
241	Determination of water content by potentiometry - Karl Fischer method	SOP 51, method E (ČSN EN 15692)	E-85 fuel, ethanol as a component of automotive gasolines	A, D
251	Determination of gum content by gravimetry after evaporation with jet stream, calculation of mixing ratio	SOP 28 (ČSN EN ISO 6246)	Light and middle- distillates, E-85 fuel	A, B, D
26 ²	Determination of the oxidation stability of middle distillates	SOP 111 (ČSN EN ISO 12205)	Petroleum distillates and diesel engine fuels	A, B, D
27 ²	Determination of oxidation stability by accelerated oxidation method	SOP 113, method A (ČSN EN 15751)	Diesel fuel, FAME and FAME-diesel mixtures	A, B, D
28 ²	Determination of oxidation stability by accelerated oxidation method	SOP 113, method B (ČSN EN 14112)	FAME	A, B, D
29 ²	Determination of oxidation stability of motor gasoline – induction period method	SOP 114 (ČSN EN ISO 7536)	Gasoline, E-85 fuel	A, B, D
30 ²	Determination of ash and sulphate ash by gravimetry	SOP 46, method A (ČSN EN ISO 6245)	Petroleum products, lubricants, oils and additives	A, B, D
31 ²	Determination of ash and sulphate ash by gravimetry	SOP 46, method B (ČSN ISO 3987)	Biofuels, oils	A, B, D
322	Determination of Conradson carburization residue by gravimetry	SOP 43 (ČSN ISO 6615)	Petroleum products	A, B, D

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332	Determination of evaporation residue by gravimetry after evaporation on water bath	SOP 34 (ČSN ISO 759; ČSN EN 15691)	Volatile organic liquids, ethanol including E-85 fuel	A, B, D
342	Determination of lubricity by HFRR	SOP 148 (ČSN EN ISO 12156-1; ASTM D6079)	Fuels for diesel engines	A, B, D
351	Determination of oxidation stability by rapid small scale oxidation method (RSOOT)	SOP 149 (ČSN EN 16091; ASTM D7545)	Middle distillates, diesel fuels containing FAME	A, B, D
36 ^{1,2}	Determination of appearance - visually	SOP 57 (ČSN EN 15769; ASTM D4176)	Liquid fuels and lubricants, E-85 fuel	A, B, D
37 ^{1,2}	Determination of total impurities of low-viscosity fuels by gravimetry	SOP 33, method A (ČSN EN 12662)	Petroleum products	A, D
381,2	Determination of total impurities of low-viscosity fuels by gravimetry	SOP 33, method B (ČSN EN 12662:2001)	FAME	A, D
39 ^{1,2}	Determination of mechanical impurities and deposits by filtration with gravimetric evaluation	SOP 88 (ČSN 65 6080; ČSN 65 6220; ASTM D4055; ASTM D4807; ČSN ISO 22241-2, Annex G)	Petroleum and petroleum products, oils, hydraulic fluids, AdBlue	A, D
401	Determination of corrosive effect of petroleum products on metals	SOP 49 (ČSN EN ISO 2160, chap. 8.3.)	Petroleum products and solvents	A, B, D
412	Determination of purity code by particle counter	SOP 123 (ČSN ISO 4406)	Hydraulic fluids, lubricants, oils	A, D
421	Determination of the content of inorganic chloride by potentiometric titration	SOP 4 (ČSN EN 15484; ČSN ISO 6227)	E-85 fuel	A, D
431	Determination of base number (TBN) by potentiometric titration	SOP 19 (ČSN ISO 3771)	Petroleum products and oils	A, D

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44 ^{1,2}	Determination of acidity and acid number by titration	SOP 47 (ČSN ISO 6618; ČSN EN ISO 660; ČSN ISO 1388-2; ČSN EN 14104; ČSN EN 15491)	Petroleum products, FAME, fats, oils, ethanol including E-85 fuel	A, D
451	Determination of alkalinity by titration	SOP 59 (ČSN ISO 22241-2, Annex D)	AdBlue	A, D
461	Determination of iodine number by iodometric titration	SOP 103 (ČSN EN 14111)	FAME	A, D
471	Determination of total acid number (TAN) by potentiometric titration	SOP 20 (ČSN ISO 6619)	Petroleum products and lubricants	A, D
481	Determination of the content of chlorides in petroleum by potentiometric titration	SOP 154 (ČSN 65 6030)	Petroleum	A, D
491	Determination of fatty acid methyl esters by infrared spectrometry	SOP 91 (ČSN EN 14078)	Diesel fuel, oils	A, B, D
501,2	IR spectrum identification	SOP 139 (ČSN ISO 22241-2, Annex J)	AdBlue	A, B, D
511	Determination of physico- chemical parameters of fuels by statistical comparison of IR spectra and measured values	SOP 140 (SGS Methodological Manual for the Creation and Maintenance of Statistical Data Evaluation Models)	Gasoline and diesel engine fuels	A, B, D
521	Determination of colouring agent RED 19 by UV/VIS method	SOP 100 (PetroSpec manual)	Petroleum and petroleum products, liquid fuels including biofuels	A, B, D
531	Determination of biuret content by UV/VIS method	SOP 150 (ČSN ISO 22241-2, Annex E)	AdBlue	A, D
541	Determination of aldehyde content by UV/VIS method	SOP 151 (ČSN ISO 22241-2, Annex F)	AdBlue	A, D
551	Determination of phosphate content by UV/VIS method	SOP 152 (ČSN ISO 22241-2, Annex H)	AdBlue	A, D

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Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Tested subject	Degrees of freedom ³
56 ¹	Determination of 2-EHN content by UV/VIS method	SOP 153 (ČSN EN ISO 13759; ASTM D4046)	Diesel engine fuels	A, D
571	Determination of aromatic and polyaromatic hydrocarbon content by HPLC/RID method	SOP 105 (ČSN EN 12916+A1)	Diesel engine fuels, petroleum distillates	A, B, D
581	Determination of marker content by HPLC/UV method	SOP 106 (European Commission, IRMM, B-2440)	Petroleum and petroleum products, liquid fuels including biofuels	A, B, D
59 ¹	Determination of oxygenate compounds and total oxygen content by GC/FID method	SOP 102, method A (ČSN EN 13132)	Gasolines, E-85 fuel	A, B, D
60¹	Determination of oxygenate compounds and total oxygen content by GC/FID method	SOP 102, method B (ČSN EN 16761-1)	E-85 Fuel	A, B, D
61 ¹	Determination of benzene content by GC/FID method	SOP 108 (ČSN EN 12177)	Gasoline	A, D
621	Determination of the content of ethanol and its impurities by GC/FID method	SOP 109 (ČSN EN 15721)	Ethanol and E-85 fuel	A, B, D
631	Determination of fatty acid methyl esters by GC/FID method	SOP 112 (ČSN EN 14103)	FAME	A, B, D
641	Determination of methanol content by GC/FID method	SOP 116 (ČSN EN 14110)	FAME	A, B, D
651	Determination of mono-, di-, tri-glycerides, glycerol and presence of triglycerides by GC/FID method and total glycerol by calculation	SOP 117 (ČSN EN 14105)	FAME	A, B, D
66¹	Determination of PUFA content by GC/FID method	SOP 121 (ČSN EN 15779 + A1)	FAME	A, B, D
671	Determination of hydrocarbon groups, oxygenates and total oxygen content by multidimensional GC/FID method	SOP 132, method A (ČSN EN ISO 22854 – method A)	Gasoline	A, B, D

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Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Tested subject	Degrees of freedom ³
681	Determination of hydrocarbon groups, oxygenates and total oxygen content by multidimensional GC/FID method	SOP 132, method B (ČSN EN ISO 22854 – method B)	E-85 fuel	A, B, D
69 ¹	Simulated distillation	SOP 162 (ČSN EN ISO 3924; ASTM D2887; IP 406)	Fuels for diesel engines	A, B, D
701	Determination of sulphur content by combustion with UV detection	SOP 101, method A (ČSN EN ISO 20846)	Petroleum and petroleum products from natural and synthetic sources	A, D
711	Determination of sulphur content by combustion with UV detection	SOP 101, method B (ČSN EN 15486)	Ethanol and E-85 fuel	A, D
721	Determination of sulphur content by combustion with UV detection	SOP 101, method C (ČSN EN 17178)	LPG	A, D
731	Determination of sulphur content by combustion with UV detection	SOP 101, method D (ASTM D6667; ČSN ISO 20729)	LPG a CNG	A, D
741	Determination of sulphur content by X-ray fluorescence	SOP 30 (ČSN EN ISO 8754)	Petroleum and petroleum products from natural and synthetic sources	A, B, D
75¹	Determination of the content of lead, manganese and potassium by FAAS method	SOP 10, method A (ČSN EN 237 – Annex A)	Automotive and aviation gasolines	A, B, D
76¹	Determination of the content of lead, manganese and potassium by FAAS method	SOP 10, method B (IP 456)	Gasoline	A, B, D
771	Determination of the content of lead, manganese and potassium by FAAS method	SOP 10, method C (ČSN EN 16135)	Gasoline	A, B, D
781	Determination of elements in oils by ICP method	SOP 134 (ASTM D5185)	Lubricating and base oils	A, B, D

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79 ¹	Determination of elements in fuels by ICP method	SOP 135 (ASTM D7111; ČSN EN 16476; ČSN EN 16136; ČSN EN 16576; ČSN EN 14538; ČSN EN 14107; ČSN EN 15837)	Middle distillates and liquid fuels	A, B, D
801	Determination of elements in working fluids by ICP method	SOP 136, method A (ČSN ISO 22241-2, Annex I)	AdBlue	A, B, D
811	Determination of elements in working fluids by ICP method	SOP 136, method B (ČSN EN ISO 11885)	Working fluids	A, B, D
821	Determination of corrosive action of LPG on copper - visually	SOP 95 (ČSN EN ISO 6251)	LPG	A, D
831	Determination of hydrocarbon composition of LPG by GC/FID method and calculation of octane number, vapour pressure and density from measured values	SOP 99 (ČSN EN 589+A1; ČSN EN 27941; ČSN EN ISO 8973; DIN 51619)	LPG	A, B, D
841	Determination of water content by titration - Karl Fischer method	SOP 127 (ČSN EN ISO 10101-3)	CNG	A, D
85 ¹	Detection of hydrogen sulphide in liquefied gas	SOP 107 (ČSN EN ISO 8819)	LPG	A, B, D
86 ¹	Determination of insoluble residue by gravimetry	SOP 119 (ČSN EN 15471)	LPG	A, D
871	Determination of gas composition by GC/TCD- FID method and calculation of gross calorific value, net calorific value, Wobbe index, molecular weight, relative density and density from measured values	SOP 122 (ČSN EN ISO 6974-4; ČSN EN ISO 6976)	CNG	A, B, D
881	Qualitative determination of the presence of water in LPG – visually	SOP 137 (ČSN EN 15469)	LPG	A, B, D

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Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Tested subject	Degrees of freedom ³
891	Sensory determination of LPG odour	SOP 138 (ČSN EN 589+A1, Annex A)	LPG	D

asterisk at the ordinal number identifies the tests, which the laboratory is qualified to carry out outside the permanent laboratory premises; the numerical index at the test ordinal number identifies the location carrying out the test (the identification of the locations is given on the first page of this document)

The laboratory can modify the test procedures with the specified degree(s) of freedom in the scope of accreditation while maintaining the principle of measurement. If no degree of freedom is specified, the laboratory cannot apply a flexible approach to the scope of accreditation for the test.

Specification of the scope of accreditation:

Ordinal test number	Detailed information on activities within the scope of accreditation (determined analytes)
51	for gasolines: benzene, aromatics, olefins, evaporated volume at 70 °C, 100 °C, 150 °C, end of distillation, ethanol, ethers (C5 and higher), oxygen by calculation, octane number by research and engine methods, sulphur, density at 15 °C
	for diesel fuels: cetane number, cetane index, pre-distilled volume at 250 and 350 °C, temperature at 95 % of pre-distilled volume, density at 15 °C, fatty acid methyl ester content, polyaromatics, sulphur, K.F. water content, closed cup flash point
57	mono-, di- and tri+ aromatic hydrocarbons, polycyclic aromatic hydrocarbons (sum of di- and tri+ aromatic hydrocarbons calculated from measured values) and total aromatic hydrocarbons calculated from measured values
59	methanol, ethanol, isopropanol, isobutanol, tert-butyl alcohol, ethers (C5 and higher), other oxygenates, oxygen by calculation from measured values
60	methanol, ethanol, higher alcohols (C3 - C5) and sum of ethanol with higher alcohols (C3 - C5) by calculation from measured values
62	ethanol, methanol, acetaldehyde, 1-propanol, 2-propanol, ethyl acetate, isobutanol, 1-butanol, 3-pentanol, 1,1-diethoxyethane, 3-methylbutanol, 2-methylbutanol and higher alcohols (C3 - C5)
63	linolenic acid methyl esters and total fatty acid methyl esters (C6:C24)
67	aromatics, olefins, benzene, methanol, ethanol, isopropanol, isobutanol, tert-butyl alcohol, ethers (C5 and higher) ethyl tert-butyl ether, other oxygenates, oxygen by calculation from measured values

² if the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest valid edition of the specified procedure is used (including any changes)

degrees of freedom: A - Flexibility concerning materials/products (subject of the test), B - Flexibility concerning components/parameters/characteristics, C - Flexibility concerning the performance of the method, D - Flexibility concerning the method

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Ordinal test number	Detailed information on activities within the scope of accreditation (determined analytes)
68	methanol, ethanol, higher alcohols (C3 - C5) and sum of ethanol with higher alcohols (C3 - C5) by calculation from measured values
78	silver, aluminium, boron, barium, calcium, cadmium, chromium, copper, iron, potassium, magnesium, manganese, molybdenum, sodium, nickel, phosphorus, lead, sulphur, silicon, tin, titanium, vanadium, zinc
79	silver, aluminium, boron, barium, calcium, cadmium, chromium, copper, iron, potassium, magnesium, manganese, molybdenum, sodium, nickel, phosphorus, lead, sulphur, silicon, tin, titanium, vanadium, zinc
80	aluminium, calcium, chromium, copper, iron, potassium, magnesium, sodium, nickel, zinc, phosphorus and phosphate by calculation from the measured phosphorus value
81	aluminium, calcium, chromium, copper, iron, potassium, magnesium, sodium, nickel, zinc, phosphorus and phosphate by calculation from the measured phosphorus value
83	methane, ethane, ethene, propane, propene, isobutane, butane, butenes, 1,3-butadiene, 1,2-butadiene, isopentane, n-pentane, pentenes and higher unsaturated hydrocarbons
87	methane, ethane, propane, 2-methylpropane, n-butane, 2-methylbutane, n-pentane, hexanes

Specification of the scope of accreditation:

Ordinal test number	Detailed information on activities within the scope of accreditation (tested subject)
58	marker substance SOLVENT YELLOW 124 (<i>N</i> -ethyl- <i>N</i> -[2-(1-isobutoxy-ethoxy) ethyl]-4-(phenylazo) aniline
81	service fluids are water-based fluids (e.g. aqueous urea solution)

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Sampling:

Ordinal number	Sampling procedure name	Sampling procedure identification ¹	Subject of sampling
11	Liquid fuel sampling	SOP 97 (ČSN EN ISO 3170; ČSN EN 14275; ČSN EN ISO 5555)	Liquid fuels, liquid petroleum products, oils
21	Gaseous and liquefied fuel sampling at gas stations	SOP 98 (ČSN 65 6501; ČSN 01 5113; ČSN EN ISO 10715)	Gaseous and liquefied fuels
31	AdBlue sampling	SOP 143 (ČSN ISO 22241-2, Annex A)	Aqueous solution of urea
41	Ground water sampling – manual sampling, sampling using a pump	SOP 155 (ČSN ISO 5667-11)	Ground water near fuel stations
51	Surface water sampling – manual sampling	SOP 156 (ČSN ISO 5667-4; ČSN EN ISO 5667-6)	Surface water near fuel stations
61	Waste water sampling – manual sampling	SOP 157 (ČSN ISO 5667-10)	Waste water discharged from fuel stations or from production or storage areas
71	Sampling of solid fossil fuels	SOP 159 (ČSN 44 1304; ČSN ISO 18283)	Solid fossil fuels

if the document identifying the sampling procedure is dated, only these specific procedures are used. If the document identifying the sampling procedure is not dated, the latest edition of the specified procedure is used (including any changes)

² the numerical index at the test ordinal number identifies the location carrying out the test (the identification of the locations is given on the first page of this document)