Republic of Bulgaria
Executive Agency
Bulgarian Accreditation Service

Signatory to the EA Multilateral Agreement in this field

ORDER

No A 698

Sofia, 30.11.2020

Pursuant to Art. 10, para. 1, items 3 and 4, Art. 28, para. 1 and Art. 30, para. 1 of the Law on National Accreditation of Conformity Assessment Bodies and items 6 and 7 of BAS QR 2 Accreditation Procedure, in connection with a procedure for re-accreditation and extension of the accreditation scope reg.№ 19/10 ЛИК/ПА/РО/17.10.2019, on-site assessment reports by lead assessor № 19/10 ЛИК/14/В/08.10.2020, № 19/10 ЛИК/17/В/17.11.2020, Declaration № 19/10 ЛИК/13/П/01.10.2020 and Accreditation Commission statement № 19/ 10 ЛИК/ПА/РО/20/В/23.11.2020. I hereby

RE-ACCREDIT AND EXTEND THE SCOPE OF ACCREDITATION OF

TEST CENTER "SAYBOLT-BULGARIA" AT "SAYBOLT-BULGARIA" LTD

Address of laboratory and management:
8104, Burgas, Industrial Zone No. 3, "Lukoil Neftohim Burgas" AD

To perform testing of:

Type of scope: Flexible for part of the scope			
№	Name of tested products	Test type/characteristics	Test methods (standard/validated)
1	2	3	4
1.	CRUDE OIL	1.1 Density	БДС EN ISO 3675 ASTM D 1298 ASTM D 5002
		1.2 Sulfur content	БДС EN ISO 8754 ASTM D 4294
		1.3 Water content	БДС EN ISO 9029 ASTM D 4006
		1.4 Salts content	ASTM D 3230
		1.5 Sediments (by extraction)	БДС EN ISO 3735 ASTM D 473
		1.6 Maximum pour point	ASTM D 5853 (A)
2.	AUTOMOTIVE FUELS, UNLEADED GASOLINES, GASOLINES, BIOGASOLINE	2.1 Appearance	БДС ISO 1998-2 БДС EN 228 т.5.4 ASTM D 4176
		2.2 Density	БДС EN ISO 3675 ASTM D 1298 БДС EN ISO 12185 ASTM D 4052
		2.3 Distillation characteristics	БДС EN ISO 3405 ASTM D 86
		2.4 Vapour pressure (Reid method)	ASTM D 323
		2.5 Volatility index	БДС EN 228 т.5.5.2
		2.6 Sulfur content	БДС EN ISO 8754

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Type of scope: Flexible for part of the scope			
№	Name of tested products	Test type/characteristics	Test methods (standard/validated)
1	2	3	4
			ASTM D 4294 БДС EN ISO 20846 ASTM D 5453 БДС EN ISO 20884
		2.7 Copper strip corrosion	БДС EN ISO 2160 ASTM D 130 ASTM D 4814 т.7.1.4
		2.8 Gum content (unwashed or solvent washed)	БДС EN ISO 6246 ASTM D 381
		2.9 Vapour pressure	БДС EN 13016-1 ASTM D 5191
		2.10 Lead content	БДС EN 237 ASTM D 3237
		2.11 Water-soluble acids and bases	БДС 5252 ASTM D 1093
		2.12 Hydrocarbon type: - Arenes (aromatic) - Alkenes (olefins) - Saturated (paraffins)	БДС ISO 3837 ASTM D 1319 ASTM D 5134 БДС EN 15553 ASTM D 6839 ASTM D 5443 БДС EN ISO 22854
		2.13 Motor Octane number, MON	БДС EN ISO 5163 ASTM D 2700 ГОСТ 511 ГОСТ Р 52946
		2.14 Research Octane number, RON	БДС EN ISO 5164 ASTM D 2699 ГОСТ 8226 ГОСТ Р 52947
		2.15 Mercaptan sulfur	БДС ISO 3012 ASTM D 3227 UOP 163
		2.16 Hydrogen sulfide	ASTM D 4952 БДС 5579 UOP 163
		2.17 Oxygen content	БДС EN 13132 БДС EN ISO 22854 ASTM D 6839
		2.18 Oxygen-containing compounds	БДС EN 13132 БДС EN ISO 22854 ASTM D 6839
		2.19 Methyl tert-butyl ether (MTBE) content	IP PM BG/91 (modified)
		2.20 Benzene content	БДС EN 12177+AC ASTM D 5134 БДС EN ISO 22854 ASTM D 6839
		2.21 Oxidation stability (Induction period)	БДС EN ISO 7536 ASTM D 525
		2.22 Manganese content	БДС EN 16135 БДС EN 16136

Type of scope: Flexible for part of the scope			
№	Name of tested products	Test type/characteristics	Test methods (standard/validated)
1	2	3	4
		2.23 Saybolt colour	ASTM D 156
		2.24 Metals content -Lead -Arsenic	ВЛМИ-СБ/001/2019
3.	FUELS FOR DIESEL ENGINES, GASOILS FOR INDUSTRIAL AND COMMUNAL PURPOSES, MARINE DISTILLATE FUELS	3.1 Density	БДС EN ISO 3675 ASTM D 1298 БДС EN ISO 12185 ASTM D 4052
		3.2 Appearance	ASTM D 4176
		3.3 Distillation characteristics	БДС EN ISO 3405 ASTM D 86
		3.4 Sulfur content	БДС EN ISO 8754 ASTM D 4294 БДС EN ISO 20846 ASTM D 5453 БДС EN ISO 20884
		3.5 Copper strip corrosion	БДС EN ISO 2160 ASTM D 130
		3.6 Water-soluble acids and bases	БДС 5252
		3.7 Hydrogen sulfide	БДС 5579
		3.8 Cetane number, CN	БДС EN ISO 5165 ASTM D 613
		3.9 Cetane index	БДС EN ISO 4264 ASTM D 4737 ASTM D 976
		3.10 Kinematic viscosity at 20 °C at 40 °C	БДС EN ISO 3104+AC ASTM D 445
		3.11 Flash point (closed-cup), Pensky–Martens	БДС EN ISO 2719 ASTM D 93
		3.12 Ash content	БДС EN ISO 6245 ASTM D 482
		3.13 Carbon Residue	БДС ISO 6615 ASTM D 189 БДС EN ISO 10370 ASTM D 4530
		3.14 Water content	БДС EN ISO 12937 БДС ISO 3733 ASTM D 6304 ASTM D 95
		3.15 Water and sediments	ASTM D 2709
		3.16 Cloud point	БДС EN ISO 3015 ASTM D 2500
		3.17 ASTM scale colour	БДС ISO 2049 ASTM D 1500
		3.18 Lubrication ability at 60°C	БДС EN ISO 12156-1 ASTM D 6079
		3.19 Fatty acids methyl esters (FAME) content	БДС EN 14078
		3.20 Acid number	ASTM D 974 ASTM D 664

Type of scope: Flexible for part of the scope			
№	Name of tested products	Test type/characteristics	Test methods (standard/validated)
1	2	3	4
		3.21 Freezing point	БДС 1751
		3.22 Pour point	БДС EN ISO 3016 ASTM D 97
		3.23 Cold filter plugging point (CFPP)	БДС EN 116 ASTM D 6371
		3.24 Oxidation stability	БДС EN ISO 12205 ASTM D 2274
		3.25 Total contamination	БДС EN 12662,IP 440
		3.26 Total sediment by hot filtration	БДС ISO 10307-1 ASTM D 4870, IP 375
		3.27 Aromatic hydrocarbons type - Monoaromatic - Diaromatic - Triaromatic (arenes) - Polycyclic aromatic (arenes)	БДС EN 12916 IP 391
		3.28 Manganese content	БДС EN 16576
		3.29 Specific heat of combustion	БДС ISO 8217 AnnexH ASTM D 4868
		3.30 Oxidation stability by accelerated oxidation method, 110°C	БДС EN 15751
4.	BIODIESEL	4.1 Density	БДС EN ISO 3675 ASTM D 1298 БДС EN ISO 12185 ASTM D 4052
		4.2 Sulfur content	БДС EN ISO 20846 ASTM D 5453
		4.3 Copper strip corrosion	БДС EN ISO 2160 ASTM D 130
		4.4 Cetane number, CN	БДС EN ISO 5165 ASTM D 613
		4.5 Kinematic viscosity at 40 °C	БДС EN ISO 3104+AC ASTM D 445
		4.6 Flash point (closed-cup), Pensky–Martens	БДС EN ISO 2719 ASTM D 93
		4.7 Carbon Residue	БДС EN ISO 10370 ASTM D 4530
		4.8 Water content	БДС EN ISO 12937 ASTM D 6304
		4.9 Pour point	БДС EN ISO 3016 ASTM D 97
		4.10 Cold filter plugging point (CFPP)	БДС EN 116 ASTM D 6371
		4.11 Total contamination	БДС EN 12662 IP 440
		4.12 Oxidation stability by accelerated oxidation method, 110°C	БДС EN 15751 БДС EN 14112
5.	FUEL OILS, MARINE RESIDUAL FUELS	5.1 Density	БДС EN ISO 3675 ASTM D 1298 БДС EN ISO 12185 ASTM D 4052
		5.2 Sulfur content	БДС EN ISO 8754

Type of scope: Flexible for part of the scope			
№	Name of tested products	Test type/characteristics	Test methods (standard/validated)
1	2	3	4
			ASTM D 4294
		5.3 Water-soluble acids and bases	БДС 5252
		5.4 Kinematic viscosity at 50 °C at 80 °C at 100 °C	БДС EN ISO 3104+AC ASTM D 445
		5.5 Flash point (closed-cup), Pensky–Martens	БДС EN ISO 2719 ASTM D 93
		5.6 Ash content	БДС EN ISO 6245 ASTM D 482
		5.7 Carbon Residue	БДС ISO 6615 ASTM D 189 БДС EN ISO 10370 ASTM D 4530
		5.8 Water content	БДС ISO 3733 ASTM D 95
		5.9 Water and sediments	БДС ISO 3734 ASTM D 1796
		5.10 Sediments (by extraction)	БДС EN ISO 3735 ASTM D 473
		5.11 Specific heat of combustion	БДС ISO 8217Annex H ASTM D 4868
		5.12 Freezing point	БДС 1751
		5.13 Pour point	БДС EN ISO 3016 ASTM D 97
		5.14 Flash point open-cup	БДС EN ISO 2592 ASTM D 92
		5.15 ASTM scale colour	БДС ISO 2049 ASTM D 1500
		5.16 Acid number	ASTM D 664
		5.17 Total sediment by hot filtering	БДС ISO 10307-1/2 ASTM D 4870 IP 375 IP 390
		5.18 Asphaltene content	ASTM D 6560 IP 143
		5.19 Metals content - Sodium - Nickel - Calcium - Vanadium - Aluminum - Silicon - Zinc - Iron	IP 470
		5.20 Metals content - Phosphorus - Sodium - Nickel - Calcium - Vanadium	IP 501

Type of scope: Flexible for part of the scope			
№	Name of tested products	Test type/characteristics	Test methods (standard/validated)
1	2	3	4
		- Aluminum - Silicon - Zinc - Iron	
		5.21 Metals content - Aluminum - Silicon	ASTM D 5184
		5.22 Metals content - Sodium - Nickel - Vanadium - Iron	ASTM D 5863
6.	JET FUELS	6.1 Density	БДС EN ISO 3675 ASTM D 1298 БДС EN ISO 12185 ASTM D 4052
		6.2 Distillation characteristics	БДС EN ISO 3405 ASTM D 86
		6.3 Sulfur content	БДС EN ISO 8754 ASTM D 4294 БДС EN ISO 20846 ASTM D 5453 БДС EN ISO 20884
		6.4 Specific heat of combustion	ASTM D 3338
		6.5 Copper strip corrosion	БДС EN ISO 2160 ASTM D 130
		6.6 Hydrocarbon type: - Arenes (aromatic) - Alkenes (olefins) - Saturated (paraffins)	ASTM D 1319 БДС EN 15553
		6.7 Content of resins-ubwashed, washed with solvent	БДС EN ISO 6246 ASTM D 381
		6.8 Mercaptan sulfur	БДС ISO 3012 ASTM D 3227 UOP 163
		6.9 Hydrogen sulfide	ASTM D 4952, UOP 163
		6.10 Saybolt colour	ASTM D 156
7.	METHYL TERT-BUTYL ETHER (MTBE)	7.1 Appearance	БДС ISO 1998-2 ASTM D 4176
		7.2 Density	ASTM D 4052 БДС EN ISO 12185
		7.3 Methyl tert-butyl ether (MTBE)	ASTM D 5441
		7.4 Methanol	ASTM D 5441
		7.5 Tert-butyl alcohol (TBA)	ASTM D 5441
		7.6 Water content	ASTM E 1064
		7.7 Sulfur content	БДС EN ISO 20846 ASTM D 5453
8.	TECHNICAL SULFUR	8.1 Sulfur content	БДС 1678 т. 4.1
		8.2 Ash content	БДС 1678 т. 4.5
		8.3 Acids content recalculated as H_2SO_4	БДС 1678 т. 4.4

Type of scope: Flexible for part of the scope			
№	Name of tested products	Test type/characteristics	Test methods (standard/validated)
1	2	3	4
		8.4 Organic substances content	БДС 1678 т. 4.5
		8.5 Moisture content	БДС 1678 т. 4.9

References:

1. IP PM BG/91 (modified) — Determination of the content of methyl tert-Butyl ether (MTBE) and tert-Amyl methyl ether (TAME) in light distillate raw materials – gas chromatography method
2. ВЛМИ-СБ/001 /2019 — Determination of the content of lead and arsenic in motor fuels and components for fuels, by ICP –OEC

To perform sampling of:

Type of scope: flexible*		
№	Product name	Test methods (standard/validated method)
1	2	3
1.	CRUDE OIL	БДС EN ISO 3170, ASTM D 4057, ASTM D 5842
2.	AUTOMOTIVE FUELS, UNLEADED GASOLINES, GASOLINES,BIOGASOLINE	БДС EN ISO 3170, ASTM D 4057, ASTM D 5842
3.	FUELS FOR DIESEL ENGINES, GASOILS FOR INDUSTRIAL AND COMMUNAL PURPOSES, MARINE DISTILLATE FUELS	БДС EN ISO 3170, ASTM D 4057, ASTM D 5842
4.	BIODIESEL	БДС EN ISO 3170, ASTM D 4057, ASTM D 5842
5.	FUEL OILS, MARINE RESIDUAL FUELS	БДС EN ISO 3170, ASTM D 4057, ASTM D 5842
6.	JET FUELS	БДС EN ISO 3170, ASTM D 4057, ASTM D 5842
7.	METHYL TERT-BUTYL ETHER (MTBE)	БДС EN ISO 3170, ASTM D 4057
8.	SOLID CHEMICAL PRODUCTS (TECHNICAL SULFUR)	БДС ISO 8213

** The introduction of a new version of the standards or standards that replace them is permitted. An up-to-date list of standards with their dated versions is provided by the CAB.*

To perform calibration of:

Type of scope: fixed					
№	*Type of measuring instrument*	*Measured quantuty, measurement unit*	*Measurement range*	*Measurement uncertainty*	*Calibration method*
1	2	3	4	5	6
1.	Hydrometers for liquids with low surface tension	g/cm^3	от 0.6000 g/cm^3 до 1.1000 g/cm^3	± 0.00008 g/cm^3	Calibration method МК-05
2.	Automatic apparatus for density measurement	g/cm^3	от 0.7200 g/cm^3 до 1.0000 g/cm^3	± 0.00008 g/cm^3	Calibration method МК-09

References:

1.	МК-05/ 03-06-2019	Method of calibration of technical means for density measuring – Hydrometers for liquids with low surface tension
2.	МК-09/ 03-06-2019	Method of calibration of automatic apparatus for density measurement

I HEREBY ORDER:

To issue the Certificate of accreditation reg. № 10 ЛИК/30.11.2020, valid until 30.11.2024 and this order as an integral part of it.

The Certificate of accreditation with the enclosure should be obtained from manager of "SAYBOLT-BULGARIA" LTD, the head of Test center "SAYBOLT-BULGARIA" at "SAYBOLT-BULGARIA" LTD or other authorized person in the office of EA BAS.
Upon receipt of the certificate issued and enclosure, Test center "SAYBOLT-BULGARIA" at "SAYBOLT-BULGARIA" LTD is obliged to return to EA BAS the originals of Certificate of accreditation reg. № 10 ЛИК/14.11.2019, valid until 31.05.2020 and the enclosure Order for accreditation № А 509/14.11.2019.
This Order shall be notified to Test center "SAYBOLT-BULGARIA" at "SAYBOLT-BULGARIA" LTD within 3 (three) days from its issuance.

Eng. Irena Borislavova:

Executive Director of
Executive Agency
"Bulgarian Accreditation Service"