

10.6 Scope of Accreditation

Issue No: 03/ Issue Date: 26-09-2018
Accreditation Manager: Atta Subhan



ACCREDITED
TESTING
ISO/IEC 17025:2005
No. ATL 0015

GEO-CHEM Middle East Laboratory No. ATL0015

is accredited by the GCC Accreditation Center (GAC) in accordance with the recognised International Standard ISO/IEC 17025:2005, "General requirements for the competence of testing and calibration laboratories"

GEO-CHEM Middle East Laboratory	
Issue No: 03	Issue Date: 26 September 2018
Address. Geochem Middle East, P.O. Box 2209, National Industries Park, South Freezone, Dubai, UAE	Contact: Mr. Pradeesh Pradeep Tel: +97148867400 Fax: +97148867401 Email: pradeesh.pradeep@geochemglobal.com Web Address: www.geochem.ae

Locations where testing activities covered by the above Accreditation Standard are undertaken

1- **address:** Geochem Middle East, P.O. Box 2209, National Industries Park, South Freezone, Dubai, UAE

For the following scope:

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Scope:

7 Chemical Testing

- 7.21 Miscellaneous petroleum products
- 7.66 Waters

8 Biological Testing

- 8.11 Microbiological tests on foods
- 8.18 Microbiological tests for monitoring defined environments

Scope details are as follows:

Version: 3.3

Date: 15th March 2018

Approved by: Atta Subhan

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TEST CATEGORY	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS / PARAMETERS OR PROPERTIES, COMPONENTS, CHARACTERISTICS TESTED	SPECIFICATION, STANDARD TEST METHOD OR TECHNIQUE USED
Microbiological Testing	Drinking Water/Water/Wastewater Clean & Unclean waters	Heterotrophic Plate Counts (HPC)	APHA 9215 D & B, 23 rd Ed. 2017
		Enumeration of Total Coliforms	APHA 9222 B, 23 rd Ed. 2017
		Enumeration of E. coli	APHA 9222 B, 23 rd Ed. 2017
		Enumeration of Pseudomonas aeruginosa	APHA 9213 E, 23 rd Ed. 2017
		Enumeration of Fecal streptococcus	APHA 9230 C, 23 rd Ed. 2017
		Enumeration of Legionella	APHA 9260 J 23 rd Ed. 2017/ ISO 11731-2017
		Enumeration of Fecal coliform	APHA 9222 D, 23 rd Ed. 2017
	Food (including dairy foods)	TPC (Pour plate technique)	USFDA BAM Chapter 3: 2001 / CCFRA 1.1.1:2007
		Enumeration of Coliforms & E-coli (MPN & Solid medium method)	USFDA BAM Chapter 4 :2017
		Detection of E-coli 0157: H7	GC-SOP-180 (Neogen Reveal Kit)
		Yeast & Mold (Spread plate technique)	USFDA BAM Chapter 18: 2001
		Detection of Salmonella	USFDA BAM Chapter 5: 2018
		Detection of Vibrio parahaemolyticus	USFDA BAM Chapter 9: 2004
		Enumeration of Listeria monocytogenes	CCFRA 3.2.1 : 2007 & 3.2.7:2007
		Detection of Listeria monocytogenes	CCFRA 3.2.4 : 2007 & 3.2.7:2007
		Enumeration of Bacillus cereus	USFDA BAM Chapter 14: 2012
		Enumeration of Staphylococcus aureus	USFDA BAM Chapter 12: 2016
	Swab (Hand & Surfaces)	Detection of Staphylococcus aureus	GC-SOP-192

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		Detection of Total coliforms	
		Detection of E. coli	
Chemical Testing (Water Chemistry)	Waste Water/ Irrigation Water	pH	APHA 4500H+B, 23 rd Ed. 2017
		Total Suspended Solids	APHA 2540 D, 23 rd Ed. 2017
		Total Dissolved Solids	APHA 2540C, 23 rd Ed. 2017
		Oil & Grease	APHA 5520 B, 23 rd Ed. 2017
		Chemical Oxygen Demand	APHA 5220 B, 23 rd Ed. 2017
		Chemical Oxygen Demand	APHA 5220 D, 23 rd Ed. 2017
		Biological Oxygen Demand	APHA 5210 B, 23 rd Ed. 2017
		Metals: Copper, Cadmium, Zinc, Nickel, Chromium, Lead, Cobalt, Manganese, Silver, Iron	APHA 3120B/ APHA 3030F, 23 rd Ed. 2017
	Drinking Water /Portable water	pH	APHA 4500H ⁺ B, 23 rd Ed. 2017
		Conductivity	APHA 2510B, 23 rd Ed. 2017
		Turbidity	APHA 2130B, 23 rd Ed. 2017
		Total Dissolved Solids	APHA 2540C, 23 rd Ed. 2017
		Chloride	APHA 4500Cl ⁻ B, 23 rd Ed. 2017
		Sulphate	APHA 4500 SO ₄ ²⁻ C, 23 rd Ed. 2017
		Nitrate	APHA 4500 NO ₃ ²⁻ B, 23 rd Ed. 2017
		Fluoride	APHA 4500F-D, 23 rd Ed. 2017
		Carbonate	APHA 2320B, 23 rd Ed. 2017
		Bicarbonate	APHA 2320B, 23 rd Ed. 2017
		Total Alkalinity	APHA 2320 B, 23 rd Ed. 2017
		Calcium	APHA 3500Ca B, 23 rd Ed. 2017
Magnesium	APHA 3500Mg B, 23 rd Ed. 2017		

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		Total Hardness	APHA 2340 B, 23 rd Ed. 2017
		Chloride	APHA 4110B, 23 rd Ed. 2017
		Sulphate	APHA 4110B, 23 rd Ed. 2017
		Bromide	US EPA 300.1
		Bromate	US EPA 300.1
		Calcium	APHA 3120B/ APHA 3030 F, 23 rd Ed. 2017
		Iron	
		Magnesium	
		Potassium	APHA 3120B/ APHA 3030 F, 23 rd Ed. 2017
		Sodium	
	Swimming pool water	pH	APHA 4500H ⁺ B, 23 rd Ed. 2017
		Total Dissolved Solids	APHA 2540 C, 23 rd Ed. 2017
		Total Hardness	APHA 2340 B, 23 rd Ed. 2017
		Total Alkalinity	APHA 2320 B, 23 rd Ed. 2017
Chemical Testing (Petroleum chemistry)	Transformer Oil	Kinematic viscosity	ASTM D 445, ISO 3104-1994
		Sulphur (Energy Dispersive X-ray Fluorescence Spectrometry)	ASTM D 4294, ISO 20847- 2004
		Pour Point	ASTM D 97, ISO 3016- 1994
		Flash Point (Pensky-Martens) Closed cup Tester	ASTM D 93, ISO 2719- 2016
		Flash Point (Cleveland) Open cup Tester	ASTM D 92
		Density and Relative Density by Digital Density Meter	ASTM D 4052, ISO 12185- 1996
		Density and Relative Density by Hydrometer Method	ASTM D 1298, ISO 3675- 1998
		Interfacial Tension of Oil against water	ASTM D 971
Corrosive Sulfur	ASTM D 1275		

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	Covered Conductor Deposition Test(CCD)	ISO 62535- 2008
	Specific Resistance (Resistivity)	ASTM D 1169, IEC 60247-2004
	ASTM Colour	ASTM D 1500
	Colour	ISO 2049- 1996
	Dielectric Dissipation Factor	ASTMD 924, IEC 60247-2004
	Acid and Base Number	ASTM D 974
	Acidity (Automatic Potentiometric)	IEC 62021-1- 06(2003)
	Sludge and Sediment	IEC 61125- 2018
	Oxidation Stability	IEC 61125- 2018
	Water Content Coulometric Karl Fischer Titration	IEC 60814- 2008, ASTM D 1533
	Breakdown Voltage(BDV)	ASTM D1816, ASTM D 877
	Breakdown Voltage(BDV)	IEC 60156- 2003
	Anti-Oxidant Additives	IEC 60666- 2010, ASTM D 2668
	Furanic Compounds	ASTM D 5837, IEC 61198- 2002
	Polychlorinated Biphenyls(PCB)	ASTM D 4059, IEC 61619- 2016
	Dissolved Gas Analysis(DGA)	ASTM D 3612C, IEC 60567-2011
	Particle sizing	IEC 60970 - 2008
	Metals (Aluminum, Copper, Chromium, Iron, Lead, Nickel, Sodium, Silicon, Tin, Cadmium, Silver, Titanium, Vanadium, Zinc, Sodium, Potassium, Magnesium, Manganese, Molybdenum, Boron, Barium, Calcium)	ASTM D 5185
	Estimated Degree of Polymerization	Chendong Model
	Estimated Degree of Polymerization	De Pablo Model

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		Estimated Degree of Polymerization	Pahlavanpour Model
		Dibenzyl Disulfide(DBDS)	IEC 62697-1- 2012
Gas		Analysis of Natural Gas	ASTM D 1945
		Analysis of Natural Gas	GPA 2286, 2014
Lubricating Oil		Kinematic Viscosity@40°C	ASTM D 445
		Kinematic Viscosity@100°C	
Residual Fuel Oil		Kinematic Viscosity@ 50°C	
Lubricating Oil, Bitumen		Flash Point (Cleveland) Open Cup Tester	ASTM D 92
Lubricating Oil, Residual Fuel Oil, Cutback residue		Flash Point (Pensky-Martens) Closed Cup Tester	ASTM D 93
Lubricating Oil		Flash Point Small Scale Closed Cup Tester	ASTM D 3828
		Metals (Aluminum, Copper, Chromium, Iron, Lead, Nickel, Sodium, Silicon, Tin, Cadmium, Silver, Titanium, Vanadium, Zinc, Sodium, Potassium, Magnesium, Manganese, Molybdenum, Boron, Barium, Calcium)	ASTM D 5185
		Insoluble (pentane and toluene)	ASTM D 893
		Particle Count (Hydraulic fluid power - Fluids -Method for coding the level of contamination by solid particles)	ISO 4406- 2017
		Total Acid Number -Color Indicator Titration	ASTM D 974
		Total Base Number- Potentiometric Perchloric Acid Titration)	ASTM D 2896
		Water Content by Distillation	ASTM D 95
Lubricating Oil, Residual Fuel Oil, Diesel, Bitumen		Water Content by Distillation	ASTM D 95

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	Lubricating Oil, Diesel, Gasoline, Naphtha	Water Content Coulometric Karl Fischer Titration	ASTM D 6304
	Aviation Fuel, Naphtha, Gasoline, Kerosene	Visual appearance	Visual
		Color (Saybolt Chromometer Method)	ASTM D 156
		Color (Automatic Tristimulus Method)	ASTM D 6045
	Aviation Fuel	Particulate contamination By Laboratory Filtration	ASTM D 5452
		Particulate ≥4µm (c) ≥6µm (c) ≥14µm (c) ≥21µm (c) ≥25µm (c) ≥30µm (c)	IP 564
		Total Acidity	ASTM D 3242
		Hydrocarbon Types by Fluorescent Indicator Adsorption	ASTM D 1319
	Aviation Fuel, Lubricating Oil, Residual Fuel Oil, Crude Oil	Sulphur Content (Energy Dispersive X-ray Fluorescence Spectrometry)	ASTM D 4294
	Aviation Fuel, Gasoline, Naphtha, Kerosene	Mercaptan Sulfur (Potentiometric Method)	ASTM D 3227
		Doctor Test	ASTM D 4952
	Aviation Fuel, Gasoline, Naphtha, White Spirit, Kerosene	Distillation at Atmospheric Pressure	ASTM D 86
	Aviation Fuel	Flash point -Tag Closed Cup Tester	IP 170

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	Aviation Fuel, Gasoline, Crude Oil, Residual Fuel Oil	Density and Relative Density by Hydrometer Method	ASTM D 1298
	Aviation Fuel, Gasoline, Naphtha, Lubricating Oil	Density and Relative Density by Digital Density Meter	ASTM D 4052
	Aviation Fuel	Freezing point	ASTM D 2386
		Freezing point- Automatic Phase Transition Method	ASTM D5972
		Viscosity at -20°C, cSt (mm ² /s)	ASTM D 445
		Specific Energy, net MJ/kg	ASTM D 3338
		Smoke Point, mm	ASTM D 1322
		Naphthalenes By Ultraviolet Spectrophotometry	ASTM D 1840
	Aviation Fuel, Gasoline, Naphtha, Lubricating Oil	Corrosiveness to Copper by Copper Strip Test (Copper Strip Classification)	ASTM D 130
	Aviation Fuel	Thermal Stability (JFTOT) control - Control Temp	ASTM D 3241
		Filter pressure differential	ASTM D 3241
		Tube deposit rating	ASTM D 3241
		Existent Gum	IP 540
		Microseparator (MSEP), Water Separation Characteristics by Portable Separometer	ASTM D 3948
		Electrical Conductivity	ASTM D 2624
Diesel Oil	Appearance	Visual	
Diesel Oil, Lubricating Oil, Heating Oil, Petroleum Waxes	Colour ASTM (ASTM Color Scale)	ASTM D-1500	
Diesel Oil, Crude Oil, Residual Fuel oil, Lubricating Oil	Ash	ASTM D-482	

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Diesel Oil	Calorific value	ASTM D-4868	
	Acid Number-Strong		
	Acid Number- Total	ASTM D-974	
	Cetane Index	ASTM D-976, ASTM D- 4737	
	Copper Strip Corrosion, 3 hrs. 100°C	ASTM D-130	
	Density and Relative Density by Hydrometer Method	ASTM D-1298	
	Density and Relative Density by Digital Density Meter	ASTM D-4052	
	Distillation at Atmospheric Pressure	ASTM D-86	
	Flash Point (Pensky-Martens) Closed Cup Tester	ASTM D-93	
	Pour point	ASTM D-97	
	Cloud point	ASTM D-2500	
	CFPP	ASTM D 6371, IP 309	
	Sediment and Water	ASTM D-2709	
	Diesel Oil, Gasoline, Engine Oil, Naphtha	Sulphur By Ultraviolet Fluorescence	ASTM D-5453
	Diesel Oil	Kinematic Viscosity@40°C	ASTM D-445
Lubricity, By the High-Frequency Reciprocating Rig (HFRR)		ASTM D-6079	
Oxidation Stability (Accelerated Method)		ASTM D-2274	
Electrical Conductivity		ASTM D-2624	
Sulphur Content (Energy Dispersive X-ray Fluorescence Spectrometry)		ASTM D4294	

Note: the text in blue indicates the new scope OR update in the Edition of a test method in this issue of the scope of accreditation.

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END

This laboratory is recorded as issuing GAC accredited reports to organizations in the countries listed below. This list is current at the time of issue of this schedule.

United Arab Emirates	Bahrain	Saudi Arabia	Oman	Qatar	Kuwait	Yemen