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### 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: 2 Issue Date: 10 September 2017			
Address.  Geochem Middle East, P.O. Box 2209, National Industries Park, South Freezone, Dubai, UAE	Contact: Dr. Sunil Kumar Tel: +97148867400 Fax: +97148867401 Email: sunil.kumar@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:

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TEST CATEGORY	OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	
Microbiological Testing	Drinking Water/Water/ Wastewater Clean & Unclean waters	HPC Enumeration of Total Coliforms Enumeration of E. coli Enumeration of Pseudomonas aeruginosa Enumeration of Fecal streptococcus Enumeration of Legionella	APHA 9215D & B, 22 <sup>nd</sup> Ed. 2012 APHA 9222 B, 22 <sup>nd</sup> Ed. 2012 APHA 9222 B, 22 <sup>nd</sup> Ed. 2012 APHA 9213 E, 22 <sup>nd</sup> Ed. 2012 APHA 9230 C, 22 <sup>nd</sup> Ed. 2012 APHA 9260 J/ ISO 11731-2017	
	Food (including dairy foods)	Enumeration of Fecal coliform  TPC (Pour plate technique)  Enumeration of Coliforms &E-coli (MPN & Solid medium method)  Detection of E-coli 0157: H7  Yeast & Mold (Spread plate technique)  Detection of Salmonella  Detection of Vibrio parahaemolyticus  Enumeration of Listeria monocytogenes  Detection of Bacillus cereus	APHA 9222 D, 22 <sup>nd</sup> Ed. 2012  USFDA Chapter 3 / CCFRA 1.1.1  USFDA Chapter 4, 2013  GC-SOP-180 (Neogen Reveal Kit)  USFDA Chapter 18, 2001  USFDA Chapter 5, 2016  USFDA Chapter 9, 2004  CCFRA 3.2.1 : 2007  CCFRA 3.2.4 : 2007  USFDA Chapter 14, 2012	
	Swab (Hand & Surfaces)	Detection of Staphylococcus aureus  Detection of Staphylococcus aureus  Detection of Total coliforms  Detection of E. coli	USFDA Chapter 12, 2016 GC-SOP-192	

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		Hq	APHA 4500H+B, 22 <sup>nd</sup> Ed. 2012	
		Total Suspended Solids	APHA 4500H+B, 22 <sup>nd</sup> Ed. 2012 APHA 2540 D, 22 <sup>nd</sup> Ed. 2012	
		Total Dissolved Solids Total Dissolved Solids	APHA 2540 D, 22 <sup>nd</sup> Ed. 2012 APHA 2540C, 22 <sup>nd</sup> Ed. 2012	
		Oil & Grease	APHA 5520 B, 22 <sup>nd</sup> Ed. 2012	
	Waste Water/ Irrigation	Chemical Oxygen Demand	APHA 5220 B, 22 <sup>nd</sup> Ed. 2012	
	Water	Chemical Oxygen Demand  Chemical Oxygen Demand	APHA 5220 D, 22 <sup>nd</sup> Ed. 2012	
		Biological Oxygen Demand	APHA 5210 B, 22 <sup>nd</sup> Ed. 2012	
		Metals: Copper, Cadmium, Zinc, Nickel, Chromium, Lead, Cobalt, Manganese, Silver, Iron	APHA 3120B/ APHA 3030 F, 22 <sup>nd</sup> Ed. 2012	
		-	APHA 4500H+B, 22 <sup>nd</sup> Ed. 2012	
		pH Conductivity	APHA 2510B, 22 <sup>nd</sup> Ed. 2012	
		Turbidity	APHA 2310B, 22 <sup>nd</sup> Ed. 2012 APHA 2130B, 22 <sup>nd</sup> Ed. 2012	
	Drinking Water /Portable water	Total Dissolved Solids	APHA 2540C, 22 <sup>nd</sup> Ed. 2012	
Chemical Testing (Water Chemistry)		Chloride	APHA 4500Cl <sup>-</sup> . B, 22 <sup>nd</sup> Ed. 2012	
		Sulphate	APHA 4500 SO <sub>4</sub> <sup>2</sup> -C, 22 <sup>nd</sup> Ed. 2012	
		Nitrate	APHA 4500 NO <sub>3</sub> <sup>2</sup> -B, 22 <sup>nd</sup> Ed. 2012	
		Fluoride	APHA 4500 NO <sub>3</sub> B, 22 × Ed. 2012  APHA 4500F-D, 22 <sup>nd</sup> Ed. 2012	
		Carbonate	APHA 2320B, 22 <sup>nd</sup> Ed. 2012	
		Bicarbonate	APHA 2320B, 22 <sup>nd</sup> Ed. 2012	
		Total Alkalinity	APHA 2320 B, 22 <sup>nd</sup> Ed. 2012	
		Calcium	APHA 3500CaB, 22 <sup>nd</sup> Ed. 2012	
		Magnésium	APHA 3500Mg.B, 22 <sup>nd</sup> Ed. 2012	
		Total Hardness	APHA 2340 B, 22 <sup>nd</sup> Ed. 2012	
		Chloride	APHA 4110B, 22 <sup>nd</sup> Ed. 2012	
		Sulphate	APHA 4110B, 22 <sup>nd</sup> Ed. 2012	
		Bromide	USEPA 300.1	
		Bromate	USEPA 300.1	
		Diomate	OOLI A 300.1	

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		Calcium	
		Iron	APHA 3120B/ APHA 3030 F,
		Magnésium	22 <sup>nd</sup> Ed. 2012
		Potassium	22 Lu. 2012
		Sodium	
		рН	APHA 4500H+B, 22 <sup>nd</sup> Ed. 2012
	Swimming pool water	Total Dissolved Solids	APHA 2540 C, 22 <sup>nd</sup> Ed. 2012
	Swillining poor water	Total Hardness	APHA 2340 B, 22 <sup>nd</sup> Ed. 2012
		Total Alkalinity	APHA 2320 B, 22 <sup>nd</sup> Ed. 2012
	Transformer Oil	Kinematic viscosity	ASTM D 445, ISO 3104
Chemical Testing		Sulphur (Energy Dispersive X-ray Fluorescence	
(Petroleum chemistry)		Spectrometry)	ASTM D 4294, ISO 20847
		Pour Point	ASTM D 97, ISO 3016
		Flash Point (Pensky-Martens) Closed cup Tester	ASTM D 93, ISO 2719
		Flash Point (Cleveland) Open cup Tester	ASTM D 92
		Density and Relative Density by Digital Density Meter	ASTM D 4052, ISO 12185
		Density and Relative Density by Hydrometer Method	ASTM D 1298, ISO 3675
		Interfacial Tension of Oil against water	ASTM D 971
		Corrosive Sulfur	ASTM D 1275
		Covered Conductor Deposition Test(CCD)	ISO 62535
		Specific Resistance (Resistivity)	ASTM D 1169, IEC 60247
		ASTM Colour	ASTM D 1500
		Colour	ISO 2049
		Dielectric Dissipation Factor	ASTMD 924, IEC 60247
		Acid and Base Number	ASTM D 974
		Acidity (Automatic Potentiometric)	IEC 62021-1
		Sludge and Sediment	IEC 61125

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		Oxidation Stability	IEC 61125
		Water Content Coulometric Karl Fischer Titration	IEC 60814, ASTM D 1533
		Breakdown Voltage(BDV)	ASTM D1816, ASTM D 877
		Breakdown Voltage(BDV)	IEC 60156
		Anti-Oxidant Additives	IEC 60666, ASTM D 2668
		Furanic Compounds	ASTM D 5837, IEC 61198
		Polychlorinated Biphenyls(PCB)	ASTM D 4059, IEC 61619
		Dissolved Gas Analysis(DGA)	ASTM D 3612C, IEC 60567
		Particle sizing	IEC 60970
		Metals (Aluminum, Copper, Chromium, Iron, Lead,	
		Nickel, Sodium, Silicon, Tin, Cadmium, Silver,	ASTM D 5185
		Titanium, Vanadium, Zinc, Sodium, Potassium,	
		Magnesium, Manganese, Molybdenum, Boron,	
		Barium,Calcium)	
		Estimated Degree of Polymerization	Chendong Model
		Estimated Degree of Polymerization	De Pablo Model
		Estimated Degree of Polymerization	Pahlavanpour Model
		Dibenzyl Disulfide(DBDS)	IEC 62697-1
	Gas	Analysis of Natural Gas	ASTM D 1945
	Gas	Analysis of Natural Gas	GPA 2286
	Lubricating Oil	Kinematic Viscosity@40°C	
'		Kinematic Viscosity@100°C	ASTM D 445
Residual Fuel Oil		Kinematic Viscosity@ 50°C	
	Lubricating Oil, Bitumen	Flash Point (Cleveland) Open Cup Tester	ASTM D 92
	Lubricating Oil, Residual	Flash Point (Pensky-Martens) Closed Cup Tester	ASTM D 93
	Fuel Oil, Cutback residue		
	Lubricating Oil	Flash Point Small Scale Closed Cup Tester	ASTM D 3828

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		ASTM D 5185
	· · · · · · · · · · · · · · · · · · ·	ASTM D 893
		ISO 4406
	coding the level of contamination by solid particles)	
	Total Acid Number -Color Indicator Titration	ASTM D 974
	Total Base Number- Potentiometric Perchloric Acid	ASTM D 2896
	Titration)	
Lubricating Oil, Residual	Water Content by Distillation	ASTM D 95
Fuel Oil, Diesel, Bitumen	·	
Lubricating Oil, Diesel,	Water Content Coulometric Karl Fischer Titration	ASTM D 6304
Gasoline, Naphtha		
Aviotion Fuel Nombths	Visual appearance	Visual
	Color (Saybolt Chromometer Method)	ASTM D 156
Gasoline, Kerosene	Color (Automatic Tristimulus Method)	ASTM D 6045
	Particulate contamination By Laboratory Filtration	ASTM D 5452
Aviation Fuel	Particulate	
	≥4µm (c)	
		IP 564
	·	
	1 \ \ /	ASTM D 3242
	Hydrocarbon Types by Fluorescent Indicator Adsorption	ASTM D 1319
	Fuel Oil, Diesel, Bitumen Lubricating Oil, Diesel, Gasoline, Naphtha Aviation Fuel, Naphtha, Gasoline, Kerosene	Total Base Number- Potentiometric Perchloric Acid Titration)  Lubricating Oil, Residual Fuel Oil, Diesel, Bitumen  Lubricating Oil, Diesel, Gasoline, Naphtha  Aviation Fuel, Naphtha, Gasoline, Kerosene  Aviation Fuel  Aviation Fuel

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	Aviation Fuel, Lubricating	Sulphur Content (Energy Dispersive X-ray Fluorescence	ASTM D 4294
	Oil, Residual Fuel Oil, Crude Oil	Spectrometry)	
	Aviation Fuel, Gasoline,	Mercaptan Sulfur (Potentiometric Method)	ASTM D 3227
	Naphtha, Kerosene	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
	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 (mm2/s)	ASTM D 445
	Aviation Fuel	Specific Energy, net MJ/kg	ASTM D 3338
		Smoke Point, mm	ASTM D 1322
		Naphthalenes By Ultraviolet Spectrophotometry	ASTM D 1840
	Aviation Fuel, Gasoline,	Corrosiveness to Copper by Copper Strip Test	ASTM D 130
	Naphtha, Lubricating Oil	(Copper Strip Classification)	
		Thermal Stability (JFTOT) control - Control Temp	ASTM D 3241
		Filter pressure differential	ASTM D 3241
	Aviation Fuel	Tube deposit rating	ASTM D 3241
		Existent Gum	IP 540
		Microseparameter (MSEP), Water Separation	ASTM D 3948

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	Characteristics by Dortable Congressetor	
	Characteristics by Portable Separometer  Electrical Conductivity	ASTM D 2624
Discal Oil	•	
Diesel Oil	Appearance	Visual
Diesel Oil, Lubricating Oil,	Colour ASTM (ASTM Color Scale)	ASTM D-1500
Heating Oil, Petroleum		
Waxes		
Diesel Oil, Crude Oil,	Ash	ASTM D-482
Residual Fuel oil,		
Lubricating 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
Diesel Oil	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,	Sulphur By Ultraviolet Fluorescence	ASTM D-5453
Engine Oil, Naphtha		
Diesel Oil	Kinematic Viscosity@40°C	ASTM D-445
	Lubricity, By the High-Frequency Reciprocating Rig (HFRR)	ASTM D-6079

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#### **GAC**



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### 10.6 Schedule of Accreditation

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Oxidation Stability (Accelerated Method)	ASTM D-2274
Electrical Conductivity	ASTM D-2624
Sulphur Content (Energy Dispersive X-ray Fluorescence	ASTM D4294
Spectrometry)	

**Note:** the text in red indicates the new scope in this issue of the schedule of accreditation.

### **END**

### **GEO-CHEM Middle East Laboratory – Dubai**

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.

<b>United Arab Emirates</b>	Bahrain	Saudi Arabia	Oman	Qatar	Kuwait	Yemen

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