CERTIFICATE OF ACCREDITATION

This is to attest that

KUWAIT CERTIFIED LABORATORY FOR SOIL TESTING, SURVEYING AND ENVIRONMENTAL STUDIES CO. WLL

WEST OF ABU FATIRA, AL-HERAFIA, BLOCK 1, STREET 10, BUILDING NO. 515, 1ST FLOOR
KUWAIT 47081, STATE OF KUWAIT

Testing Laboratory TL-753

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories.* This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date September 10, 2023

IAS ACCREDITED

President

Visit www.iasonline.org for current accreditation information.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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KUWAIT CERTIFIED LABORATORY FOR SOIL TESTING, SURVEYING AND ENVIRONMENTAL STUDIES CO. WLL

www.kwtcl.com

Contact Name Dr. Meshari Al-Harbi **Contact Phone** + +965-90995050

Accredited to ISO/IEC 17025:2017 *Effective Date September 10, 2023*

Chemical – Chemical and Petroleum Products	
ASTM D93	Standard test methods for flash point of petroleum &chemical products by Pensky-Martens closed cup flash-point apparatus (procedure A)
ASTM E 224	Standard Test Methods for Analysis of Hydrochloric Acid
ASTM D445	Viscosity
ASTM D4052	Density
Chemical – Environmental Testing – Water, Waste Water, Soil, Solids	
APHA 2130	Turbidity in Water by Nephelometric Method (Method B)
APHA 2320	Total Alkalinity (as $CaCO_3$); Titration Method (Method B)
APHA 2340	Determination of Total Hardness; EDTA Titrimetric Method (Method C)
APHA 2510	Conductivity - conductivity meter (Method B)
APHA 2540	Total Dissolved Solids Dried at 180°C (Method C)
APHA 2540	Total Suspended Solids; TSS Apparatus Method (Method D)
APHA 4500-Cl	Chloride- titrimetric (Method B)
APHA 4500-H	pH in - pH meter (Method B)
APHA 4500-NH3	Ammonia (NH_3-N)-Kjeldahl distillation (Methods B and C)
APHA 4500-P	Determination of o-Phosphate; Stannous Chloride Method (Method D)
APHA 5220	COD- COD reactor/colorimetry (Method D)
APHA 5310	Total Organic Carbon; High Temperature Combustion Method (Method B)
APHA 5520 B	Analysis of oil and grease- gravimetry
ASTM D 2974	Standard Test Methods for Determining the Water (Moisture) Content, Ash Content, and Organic Material of Peat and Other Organic Soils (Method A)
DIN 38405 – D9	Spectrometric determination of nitrate

US EPA 8015B	Standard operating procedure for the determination of Total Petroleum Hydrocarbons (TPHs) in water and solids Gasoline Range TPH(Volatiles) by Headspace GC-MSD Benzene, Toluene, Ethylbenzene, Xylene, Diesel Range TPH (Extractable) by GC-FID, Residual Range TPH (Extractable) by GC-FID
US EPA 8270C	Standard operating procedure for the determination of Organochlorine Pesticides in water and solids by GC-MS a-BHC, b-BHC, g-BHC, d-BHC, Aldrin, Endrin, Dieldrin, Endosulfane-I, Endosulfane-II, Endosulfane sulfate, Endrin aldehyde, p,p-DDD, p,p-DDE, 4,4-DDT, Heptachlor, Heptachlor epoxide
US EPA 8270C	Standard operating procedure for the determination of Semi-Volatile Organic Compounds (SVOCs) in water and solids by GC-MS Camphene, 2-chlorophenol, 2-methyl-phenol, Bis(2-chloro-1-methylethyl) ether, Benzoin, HexachloroEthane, 2-nitroPhenol, 3,4-dimethylphenol, 2,4-dichloro Phenol, Naphthalene, p-Chloroaniline, 1,1,2,3,4,4-hexachloro1,3-Butadiene, 4-chloro-3-methyl Phenol, 2-methylnaphthalene, 1,2,3,5-tetrachloro Benzene, Hexachlorocyclopentadiene, 2,4,6-trichlorophenol, 2,4,5-trichlorophenol, 2-chloro Naphthalene, Anthracene, Acenaphthylene, 2-methyl-1,3-dinitrobenzene, m-Nitroaniline, Acenaphthene, 4-nitrophenol, 2,3,4,6-Tetrachlorophenol, 1-methyl-2,4-dinitrobenzene, 2,3,5,6-tetrachlorophenol, 2-methyl-3,5-dinitrophenol, cyclobutyl ethyl ester (Phthalic acid), p-Nitroaniline, Fluorene, 1,1,1,5,5,5-hexafluoro2,4- Pentanedione, 2,6-Difluoropyridine, 1-chloro-4-phenoxy Benzene, 2-(4-methylphenyl)pyridine, 1-bromo-4- phenoxybenzene, Hexachlorobenzene, Phenanthrene, Pentachlorophenol, Pyridine, Di-n-butyl phthalate, Fluoranthene, Benzyl butyl phthalate, chrysene, Benz[a]anthracene, Benzo[c]phenanthrene, Diisooctyl phthalate, Bis(2-Ethylhexyl)phthalate, Benzo[e]pyrene, 4-[(2-hydroxypropyl)amino] 2(1H)-Pyrimidinone, Benzo[ghi]perylene, Dibenz[a,j]anthracene, Indeno[1,2,3-cd]pyrene, 2-Nitroanaline, 3-Nitroanaline, 4-Nitroanaline, Nitrobenzene, 2-Nitrophenol, 4-Nitrophenol, N-Nitrosodimethylamin, 2,2-Oxybis(1-chloropropane), Pentachlorophenol, Phenol, Pyrene, Pyridine, 2,3,5,6-Tetrechlorophenol, 1,2,4-Trichlorobenzene, Dibenz[a,j]anthracene, Indeno[1,2,3-cd]pyrene
US EPA 8260 B	Standard operating procedure for the determination of Volatile Organic Compounds (VOCs) in water and solids by GC-MS: 1,1-Dichloroethene, methylene chloride, 1,1-dichloroethane, Bromochloromethane, Trichloromethane, 1,1,1-trichloroethane, 1,2-dichloro,1-propene, Carbon tetrachloride, Benzene, 1,2-dichloroethane, Trichloroethylene, 1,2-dichloropropane, Dibromomethane, Bromodichloromethane, 1,3-dichloro-(z)-1-propene, Toluene, 1,1,2-trichloroethane, 1,3-dichloropropane, Tetrachloroethylene, Dibromochloromethane, 1,1-dibromoethane, Chlorobezene, 1,1,1,2-tetrachloroethane, Ethylebenzene, 1,3-dimethylbenzene, 2,2-dihydroxyle-1-phenyl-ethanon, Phenyl-butanedoicacid, Tribromomethane, 1-methylethylbenzene, Bromobenzene, Propylbenzene, 1,2,3-triethylbenzene, 1-chloro-4-methylebenzene, Tert-butylbenzene, 1,2,4-trimethylbenzene, 1-methyle-4-propylbenzene, 1,2,4,5-tetramethylebenzene, 1,3-dichlorobenzene, n-butylbenzene, 1.2-dichlorobenzene, 1,2-dibromo-3-chloro propane, 1,3,5-trichlorobenzene, 1,3-Butadiene, 1,1,2,3,4,4-Hexachloronaphthalene

US EPA 9071B	Total petroleum hydrocarbons (TPH) in soils- Soxhlet extraction
US EPA 6010B/APHA 3120B	Standard operating procedure for the determination of metals by Inductively Coupled Plasma – Optical Emission Spectrometry in water and Solids: Silver, Aluminum, Boron, Barium, Beryllium, Cadmium, Cobalt, Chromium, Copper, Iron, Magnesium, Manganese, Molybdenum, Nickel, Lead, Strontium, Titanium, Vanadium, Zinc, Calcium, Potassium, Sodium, Arsenic
Microbiological – In the Water and Wastewater	
APHA 9215	Heterotrophic Plate Count (Method B)
APHA 9222	Fecal Coliform (Method D)
APHA 9222	Total Coliform (Method B)
USEPA 1603	E. coli