CERTIFICATE OF ACCREDITATION

This is to attest

FUGRO

PLOT 76 & 78, THE INDUSTRIAL ZONE, ZAHRAA AL MAADI
CAIRO 11431, EGYPT

Testing Laboratory TL-778

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 November 25, 2025

International Accreditation Service
Issued under the authority of IAS management

Visit www.iasonline.org for current accreditation information.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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FUGRO

www.fugro.com

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Accredited to ISO/IEC 17025:2017 *Effective Date November 25, 2025*

Geotechnical Investigation	
ASTM C29	Standard Test Method for Bulk Density (“Unit Weight”) and Voids in Aggregate
ASTM C117	Standard Test Method for Materials Finer than75-µm (No.200) Sieve in mineral Aggregate by Washing
ASTM C127	Standard Test Method for Relative Density (Specific Gravity) and Absorption of Coarse Aggregate
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
ASTM C1202	Standard Test Method for Electrical Indication of Concrete’s Ability to Resist Chloride Ion Penetration
ASTM D421	Standard Practice for Dry Preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Constants
ASTM D422	Standard Test Method for Particle-Size Analysis of Soils
ASTM D427	Test Method for Shrinkage Factors of Soils by the Mercury Method
ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort [12 400 ft-lbf/ft3 (600 kN-m/m3)]
ASTM D1125	Standard Test Methods for Electrical Conductivity and Resistivity of Water
ASTM D1498	Standard Test Method for Oxidation-Reduction Potential of Water
ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method
ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3))
ASTM D1883	Standard Test Method for California Bearing Ratio (CBR) of Laboratory-Compacted Soils
ASTM D2166	Standard Test Method for Unconfined Compressive Strength of Cohesive Soil
ASTM D2216	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
ASTM D2435/D2435M	Standard Test Methods for One-Dimensional Consolidation Properties of Soils Using Incremental Loading
ASTM D2488	Standard Practice for Description and Identification of Soils (Visual-Manual Procedures)

ASTM D2850	Standard Test Method for Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils
ASTM D2974	Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils
ASTM D3080	Standard Test Method for Direct Shear Test of Soils Under Consolidated Drained Conditions
ASTM D3441	Standard Test Method for Mechanical Cone Penetration Testing of Soils
ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D4373	Standard Test Method for Rapid Determination of Carbonate Content of Soils
ASTM D4546	Standard Test Methods for One-Dimensional Swell or Collapse of Soils
ASTM D4648	Standard Test Methods for Laboratory Miniature Vane Shear Test for Saturated Fine-Grained Clayey Soil
ASTM D4767	Standard Test Method for Consolidated Undrained Triaxial Compression Test for Cohesive Soils
ASTM D4972	Standard Test Methods for pH of Soils
ASTM D5333	Standard Test Method for Measurement of Collapse Potential of Soils
ASTM D5334	Standard Test Method for Determination of Thermal Conductivity of Soil and Soft Rock by Thermal Needle Probe Procedure
ASTM D5731	Standard Test Method for Determination of the Point Load Strength Index of Rock and Application to Rock Strength Classifications
ASTM D7012	Standard Test Methods for Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures
ASTM D7181	Standard Test Method for Consolidated Drained Triaxial Compression Test for Soils
ASTM D7263	Standard Test Methods for Laboratory Determination of Density (Unit Weight) of Soil Specimens
ASTM G57	Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method
ASTM G200	Standard Test Method for Measurement of Oxidation-Reduction Potential (ORP) of Soil
BS 1377-2	Methods of Test for Soils for Civil Engineering Purposes. Classification Tests
BS-1377-2 Cl.8	Methods of test for soils for civil engineering purposes. Classification tests and determination of geotechnical properties
BS-1377-3 Cl.4 Cl.9	Methods of test for soils for civil engineering purposes. Chemical and electro-chemical testing
BS 1377-4 Cl 3	Methods of test for Soils for civil engineering purposes - Compaction-related tests: Clause 3 Determination of dry density/moisture content relationship

BS 1377-4 Cl 7	Methods of test for Soils for civil engineering purposes - Compaction-related tests: Clause 7 California Bearing Ratio
BS 1377-5	Methods of test for Soils for civil engineering purposes - Compressibility, permeability and durability tests
BS 1377-7	Methods of test for Soils for civil engineering purposes - Shear strength tests (total stress) (Cl.4, 7, 8)
BS 1377-8	Methods of Test for Soils for Civil Engineering Purposes. Shear strength tests (effective stress)
BS 1881-122	Method for Determination of Water Absorption
BS 5930 – Cl. 41 & 44	Code of Practice for Site Investigations - Section 6. Description of soils and rocks -Clause 41: Description of soils -Clause 44: Description and classification of rocks
DIN EN 12390-3	Compressive Strength of Test Specimens
DIN EN 12390-8	Depth of Penetration of Water under Pressure
Egyptian Code	- One Dimension Swell - Free Swell Index
NGI	Fall Cone for Shear Strength
SIG Sulphate	SIG Sulfate: ECHA Method for detecting the presence of Sulfate Reducing Bacteria per Standard Test Method for SRB, NACE TMO-194-94