

CERTIFICATE OF ACCREDITATION

This is to attest that

FUGRO-SUHAIMI CO. LTD. - YANBU

LOT # 012, BLOCK #03 SHAREH NAHAWAND, HAII AL-MEHAN, MADINAT YANBU AL- SINAIYAH YANBU, 31720, SAUDI ARABIA

Testing Laboratory TL-1299

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.

Expiry Date February 1, 2026

Effective Date January 8, 2025



International Accreditation Service Issued under the authority of IAS management

Visit www.iasonline.org for current accreditation information.

International Accreditation Service, Inc. 3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

FUGRO-SUHAIMI CO. LTD. - YANBU

www.fugro.com

Contact Name Smijith Valiyavila Sukumaran

Contact Phone +966-554264474

Accredited to ISO/IEC 17025:2017

Effective Date January 8, 2025

Water Analysis	
ASTM C 1602/C1602M	Standard Specification for Mixing Water used in the Production of Hydraulic Cement Concrete
ASTM C 1603-16	Standard Test Method for Measurement of Solids in water
SM 9222 B/D	Total coliform, fecal coliform by membrane filtration in water
SM 3120 B	Standard Methods for the Examination of Water and Wastewater Inclusion- Aluminum by Inductively Coupled Plasma (ICP) Method Antimony by Inductively Coupled Plasma (ICP) Method Barium by Inductively Coupled Plasma (ICP) Method Boron by Inductively Coupled Plasma (ICP) Method Boron by Inductively Coupled Plasma (ICP) Method Beryllium by Inductively Coupled Plasma (ICP) Method Cadmium by Inductively Coupled Plasma (ICP) Method Calcium by Inductively Coupled Plasma (ICP) Method Calcium by Inductively Coupled Plasma (ICP) Method Cobalt by Inductively Coupled Plasma (ICP) Method Cobalt by Inductively Coupled Plasma (ICP) Method Iron by Inductively Coupled Plasma (ICP) Method Lead by Inductively Coupled Plasma (ICP) Method Lead by Inductively Coupled Plasma (ICP) Method Magnesium by Inductively Coupled Plasma (ICP) Method Nagnesium by Inductively Coupled Plasma (ICP) Method Manganese by Inductively Coupled Plasma (ICP) Method Molybdenum by Inductively Coupled Plasma (ICP) Method Nickel by Inductively Coupled Plasma (ICP) Method Selenium by Inductively Coupled Plasma (ICP) Method Silver by Inductively Coupled Plasma (ICP) Method Thallium by Inductively Coupled Plasma (ICP) Method Vanadium by Inductively Coupled Plasma (ICP) Method
ASTM D1067	Standard Test Method for Acidity or Alkalinity of Water



International Accreditation Service, Inc.

ASTM D1293	Standard Test Method for pH of Water
ASTM D511	Standard Test Methods for Calcium and Magnesium in Water
ASTM D512	Standard Test Methods for Chloride Ion in Water
ASTM D516	Standard Test Methods for Sulfate Ion in Water
ASTM D888	Dissolved Oxygen in Water
SM 2130 B	Turbidity Determination in Water
SM 2320 B	Total Alkalinity Determination by Titration Method
SM 2320 B	Bicarbonate Determination by Titration Method
SM 2320 B	Carbonate Determination by Titration Method
SM 2510 B	Electrical Conductivity
SM 2540 C	Total Dissolved Solids (TDS) in water
SM 2540 D	Total Suspended Solids (TSS) in water
SM 2550	Temperature Determination
SM 3500 Fe B	Iron Determination by Spectrophotometric Method
SM 3500 K B	Potassium by Flame Emission Photometric Method
SM 3500 Mn B	Manganese (Mn) Determination by Spectrophotometric Method
SM 3500 Na B	Sodium by Flame Emission Photometric Method
SM 3500 Zn B	Zinc (Zn) Determination by Spectrophotometric Method
SM 4500 B B	Boron (B) Determination in Water by Spectrophotometric Method
SM 5310 C HACH	Total Organic Carbon (TOC)
SM 4500 CI B	Chlorine (Residual) Determination by Titration Method
SM 4500 F D	Fluoride Determination by Spectrophotometric Method
SM 4500 NH3 B&C	Ammonia Nitrogen Determination by Spectrophotometric Method
SM 4500 NO2 D	Nitrite Nitrogen Determination by Spectrophotometric Method
SM 4500 NO3 D	Nitrate Nitrogen Determination by Spectrophotometric Method
SM 4500 O H	Oxygen (Dissolved) Determination
SM 4500 S ²⁻ D	Sulphide Determination by Spectrophotometric Method
SM 4500 SiO2 C	Silica Determination by Spectrophotometric Method



International Accreditation Service, Inc.

SM 4500 SO4 ²⁻ E	Sulphate Determination by Spectrophotometric Method
SM 5210 B	Biological Oxygen Demand (BOD5)
SM 5220 D	Chemical Oxygen Demand (COD)
SM 5520 B	Oil & Grease Determination
SM 5530 C	Phenol Concentration Determination by Spectrophotometric Method
SM 4500 H ⁺ B	pH value Determination in Water
ASTM D5907	Filterable Matter (Total Dissloved Solids) and Non-Filterable Matter
SM 4500 CN ⁻ C&E	Cyanide Determination in Water
SM 4500 P D&C	Total Phosphorous Determination in Water
SM 4500 N (HACH)	Total Nitrogen Determination in Water
Aggregates	
ASTM C29/C29M	Bulk Density (Unit Weight) and Voids in Aggregate
ASTM C70	Surface Moisture in Fine Aggregate
ASTM C88	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C117	Materials Finer than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C123/C123M	Lightweight Particles in Aggregate
ASTM C127	Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
ASTM C128	Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
ASTM C131/C131M	Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C136/C136M	Sieve Analysis of Fine and Coarse Aggregates
ASTM C142/C142M	Clay Lumps and Friable Particles in Aggregates
ASTM C535	Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C566	Total Evaporable Moisture Content of Aggregate by Drying
ASTM C 1260	Potential Alkali Reactivity of Aggregates
ASTM C1293	Determination of Length Change of Concrete Due to Alkali-Silica Reaction
ASTM D75/D75M	Practice for Sampling Aggregates



International Accreditation Service, Inc.

ASTM D2419	Sand Equivalent Value of Soils and Fine Aggregate
ASTM D4253	Maximum Index Density and Unit Weight of Soils Using a Vibratory Table
ASTM D4254	Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density
ASTM D4791	Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
BS 812, Part 105.1	Determination of Particle Shape Flakiness Index
BS 812, Part 105.2	Determination of Particle Shape Elongation Index of Coarse Aggregate
BS 812, Part 110 & 111	Aggregate Crushing Value and Ten Percent Fines Value
BS 812, Part 112	Aggregate Impact Value
BS EN 1367-4	Drying Shrinkage of Aggregates
ASTM C289	Standard Test Method for Potential Alkali-Silica Reactivity of Aggregates (Chemical Method)
ASTM C471M Sec 7, 8, 10, 11, 12, 13 only	Standard Test Methods for Chemical Analysis of Gypsum and Gypsum Products
BS 812, Part 118, Sec 6 only	Determination of Sulphate Content in Aggregate
BS 812, Part 117, Appendix C only	Determination of Water-Soluble Chloride Salts in Aggregate
ASTM C25, Sec 8, 10, 11, 12, 13, 15, 18, 19, & 31 only	Standard Test Method for Chemical Analysis of Limestone, Quicklime, and Hydrated Lime
Bituminous	
ASTM D5/D5M	Penetration of Bituminous Materials
ASTM D36/D36M	Softening Point of Bitumen
ASTM D95	Water in Petroleum Products and Bituminous Materials by Distillation
ASTM D113	Ductility of Bituminous Materials
ASTM D402	Distillation of Cutback Asphalt (Bituminous) Products
ASTM D546	Sieve Analysis of Mineral Filler for Bituminous Paving Mixtures
ASTM D979 /D979M	Sampling Bituminous Paving Mixtures
ASTM D2041/D2041M	Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures



International Accreditation Service, Inc.

ASTM D2042	Solubility of Asphalt Materials in Trichloroethylene
ASTM D2170	Kinematic Viscosity of Asphalts (Bitumens)
ASTM D2172/D2172M	Quantitative Extraction of Bitumen From Bituminous Paving Mixtures
ASTM D2726	Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures
ASTM D3143	Flash Point of Cutback Asphalt with Tag Open-Cup Apparatus
ASTM D3549/D3549M	Thickness or Height of Compacted Bituminous Paving Mixture Specimens
ASTM D5361/D5361M	Sampling Compacted Bituminous Mixtures for Laboratory Testing
ASTMD5444	Mechanical Size Analysis of Extracted Aggregate
ASTM D6307	Asphalt Content of Hot-Mix Asphalt by Ignition Method
ASTM D6926	Preparation of Bituminous Specimens Using Marshall Apparatus
ASTM D6927	Marshall Stability and Flow of Bituminous Mixtures
ASTM D2489	Standard Test Method for Estimating Degree of Particle Coating of Asphalt Mixtures
Cement & Pozzolona	
ASTM C185	Air Content of Hydraulic Cement
ASTM C191	Time of Setting of Hydraulic Cement by Vicat Needle
ASTM C204	Fineness of Hydraulic Cement by Air-Permeability Apparatus
ASTM C430	Fineness of Hydraulic Cement by the 45-µm (No. 325) Sieve
ASTM C 109	Standard Test Method for Compressive Strength of Hydraulic Cement Mortars
ASTM C1240 (only Sec 12, 13, 14, 16, 19)	Standard Specification for Silica Fume Used in Cementitious Mixtures
Clay Pipes	
EN 295-3 (Section:7,13, 28)	Vitrified clay pipe systems for drains and sewers – Part 3: Test Methods
Concrete	
ASTM C31/C31M	Making and Curing Concrete Test Specimens in the Field
ASTM C39/C39M	Compressive Strength of Cylindrical Concrete Specimens
ASTM C42/C42M	Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
ASTM C78/C78M	Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)



International Accreditation Service, Inc.

ASTM C138/C138M	Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
ASTM C143/C143M	Slump of Hydraulic-Cement Concrete
ASTM C157/C157M	Length Change of Hardened Hydraulic-Cement Mortar and Concrete
ASTM C172/C172M	Sampling Freshly Mixed Concrete
ASTM C192/C192M	Making and Curing Concrete Test Specimens in the Laboratory
ASTM C231/C231M	Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C293/C293M	Flexural Strength of Concrete (Using Simple Beam With Center-Point Loading)
ASTM C403	Time of Setting of Concrete Mixtures by Penetration Resistance
ASTM C495	Compressive Strength of Lightweight Insulating Concrete
ASTM C496/C496M	Splitting Tensile Strength of Cylindrical Concrete Specimens
ASTM C511	Mixing Rooms, Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the Testing of Hydraulic Cements and Concretes
ASTM C617/C617M	Capping Cylindrical Concrete Specimens
ASTM C642	Density, Absorption, and Voids in Hardened Concrete
ASTM C805/C805M	Rebound Number of Hardened Concrete
ASTM C1064/C1064M	Temperature of Freshly Mixed Hydraulic-Cement Concrete
ASTM C1202	Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration
ASTM C1231/C1231M	Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders
ASTM C1583	Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method
BS EN 12390-8/DIN 1048	Water Permeability Test
BS EN 12390-2	Making and curing specimens for strength tests
BS EN 12390-3	Compressive strength of test specimen
BS EN 12390-5	Flexural strength of test specimens
BS EN 12390-6	Tensile splitting strength of test specimens
BS EN 12390-7	Density of hardened concrete
BS 1881-108	Method for making test cubes from fresh concrete
BS 1881-116	Method for determination of compressive strength of concrete cubes
	1



International Accreditation Service, Inc.

BS 1881-122	Water Absorption of Hardened Concrete
BS 1881:208	Recommendation for the determination of the initial surface absorption of concrete
NT BUILD 492 (Nordtest)	Chloride Migration Coefficient of Hardened Concrete
ASTM C1084 Sec 8 only	Portland-Cement Content of Hardened Hydraulic-Cement Concrete
ASTM C114-18 Sec 7, 8, 9, 10, 14, 15, 16, 17, 18, 19 & 21 only	Chemical Analysis of Hydraulic Cement
ASTM C1218/1218M CC1218C1218/C1218M	Water-Soluble Chloride in Mortar and Concrete
ASTM C1240 Sec 10 only	Standard Specification for Silica Fume Used in Cementitious Mixtures
BS 1881 Part 124, Sections 10.2 & 10.3	Analysis of Hardened Concrete (Acid Soluble Chloride and Sulfate)
EN 14488 Part 1 – Part 7	Sampling and testing of Spray concrete
ASTM C873	Standard Test Method for Compressive Strength of Concrete Cylinders Cast in Place in Cylindrical Molds
ASTM C1621	Standard Test Method for Passing Ability of Self-Consolidating Concrete by J- Ring
AASTHO T336	Coefficient of Thermal Expansion of Hydraulic Cement Concrete
NT BUILD 443 (Nordtest)	Accelerated Chloride Penetration
Gypsum Powder & Board	
ASTM C473 (Section 11 only)	Physical Testing of Gypsum Panel Products
ASTM C472	Standard test methods for physical testing of Gypsum, Gypsum Plasters, and Gypsum Concrete
Masonry	
ASTM C140/C140M	Sampling and Testing Concrete Masonry Units and Related Units
ASTM C780 Annex A6	Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry
NDT	
ASTM C597	Pulse Velocity Through Concrete
ASTM D6132	Nondestructive Measurement of Dry Film Thickness of Applied Organic Coatings Using an Ultrasonic Coating Thickness Gage



International Accreditation Service, Inc.

	Active Standard(Latest Version)
ASTM C 876	Standard Test Method for Corrosion Potentials of Uncoated Reinforcing Steel in Concrete
ASTM B117	Standard Practice for Operating Salt Spray (Fog) Apparatus
Paint	
ASTM D4541	Pull-Off Strength of Coatings Using Portable Adhesion Testers
ASTM D7234	Pull-Off Adhesion Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers
Rock	
BS EN 13383-2 (Section 8 only)	Particle Density & Water Absorption
BS EN 1097-2 Section 5	Resistance to Fragmentation by the Los Angeles Test Method
ASTM D5519	Standard Test Methods for Particle Size Analysis of Natural and Man-Made Riprap Materials
ASTM D5240	Standard Test Method for Testing Rock Slabs to Evaluate Soundness of Riprap by Use of Sodium Sulfate or Magnesium Sulfate
Soils	
ASTM D854	Specific Gravity of Soil Solids by Water Pycnometer
ASTM D698	Laboratory Compaction Characteristics of Soil Using Standard Effort
ASTM D1140	Amount of Material in Soils Finer than No. 200 (75- μ m) Sieve
ASTM D1196/D1196M; BS 1377, Part 9	Nonrepetitive Static Plate Load Tests of Soils and Flexible Pavement Components, for Use in Evaluation and Design of Airport and Highway Pavements
ASTM D1556/D1556M	Density and Unit Weight of Soil in Place by Sand-Cone Method
ASTM D1557	Laboratory Compaction Characteristics of Soil Using Modified Effort
ASTM D1883	CBR (California Bearing Ratio) of Laboratory-Compacted Soils
ASTM D2216	Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
ASTM D2487	Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D2488	Description and Identification of Soils (Visual-Manual Procedure)
ASTM D3282	Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes





International Accreditation Service, Inc.

ASTM D4318/D4318M	Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D4429	CBR (California Bearing Ratio) of Soils in Place
ASTM D5334	Determination of Thermal Conductivity of Soil and Soft Rock by Thermal Needle Probe Procedure
ASTM D6473	Specific Gravity And Absorption of Rock For Erosion Control
ASTM D6913/D6913M	Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
ASTM D6938	In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
ASTM D7012 (Method C)	Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures
ASTM D7698	Standard Test Method for In-Place Estimation of Density and Water Content of Soil and Aggregate by Correlation with Complex Impedance Method
ASTM D7928	Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis
ASTM D4972	Standard Test Method for pH of Soils
AASHTO T290	Determining Water-Soluble Sulfate Ion Content in Soil
AASHTO T291	Determining Water-Soluble Chloride Ion Content in Soil
BS1377-3:1990 Sec 4,6,7,8,9,10,11,12	Methods of Test for Soil for Civil Engineering
Steel	
ASTM A123	Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A370 (Sections 7 to 15)	Definitions for Mechanical Testing of Steel Products
ASTM D6677	Standard Test Method for Evaluating Adhesion by Knife
ASTM E376	Measuring Coating Thickness by Magnetic-Field or Eddy-Current (Electromagnetic) Testing Methods

