USACE-Certified Laboratory

Aria Middle East Geotechnical Engineering Services (AMEG)

Lab ID: LCP-036

Issue date: Sept 5th, 2020
Expiry date: Sept 4th, 2021

This letter confirms the completion of inspection and certification for The AMEG, which is located behind Sadiq Zada Pump Station, Street #3, Shahrak Wali Asr, Mazar-e-Sharif, Afghanistan. This laboratory should now be considered as **USACE-Certified for a period of 12-months** from the date of this letter. This laboratory should now be considered as certified for use by the US Army Corps of Engineers Transatlantic Afghanistan District (USACE TAA) and other clients, for all tests listed in Table 1 to Table 4, as attached to this letter. This certification will be included with records that are maintained at the ABA and USACE TAA Headquarters in Bagram Airbase, Afghanistan. Retaining the certification will require yearly inspections by the ABA. This certification is also contingent upon the following conditions:

A. Continued employment of the below individual while without his oversight, the laboratory will require recertification:
    a. Mr. Mohammad Ishaq Ghaffari;
B. If the calibration certificates of equipment expire or become invalid as per the relevant standard;
C. If the laboratory is moved to a new location, it will require recertification; and
D. If the laboratory fails to comply by the approved lab quality management plan, safety standards, and other criteria set forth in the most up-to-date ABA lab certification manual, the lab certification may be suspended.

For verification and good standing of this certification please check our online directory of laboratories at http://aba.af/lcp_directory.php. The inspection and certification process for AMEG adhered to procedures outlined by the Materials Testing Center (MTC), which is located at the Geotechnical and Structures Laboratory (GSL), U.S. Army Engineer Research and Development Center (ERDC) in Vicksburg, Mississippi, USA. The MTC is the USACE-authorized agency for certifying laboratories for use in quality control testing for USACE construction projects. To facilitate construction in Afghanistan, the USACE TAA has authorized the ABA to conduct laboratory certifications with strict adherence to MTC protocol. Qualifications of the authors for conducting these certifications include: 12 years of laboratory experience, 12 years of teaching classes on construction materials, and six years of teaching university-level construction classes.

Certified to perform 59 tests, as shown on attached sheets and summarized as:
Table 1: 20
Table 2: 18
Table 3: 16
Table 4: 5

Regards,

Ferdaws Mirza

ABA-Laboratory Certification Program Manager (ABA-LCP)

AMEG Certified Laboratory Tests

Table 1. List of Certified Soil Tests

No	Test Method	Test Procedure Title
1	ASTM D421	Standard practice for preparation of soil sample for particle size Analysis and Determination of soil constants
2	ASTM D422	Standard test Method for Particle-Size Analysis of soil
3	ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort
4	ASTM D854	Standard Test Methods for Specific Gravity of Soils Solids by Water pycnometer
5	ASTM D1140	Standard Test Methods For Amount of Material in soil Finer than No.200(75µm)Sieve
6	ASTM D1556	Standard Test Methods for Density & Unit Weight of Soil in place by Sand Cone Method
7	ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of soil using Modified Effort
8	ASTM D1586	Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils
9	ASTM D1883	Standard Test Method for California Bearing Ratio (CBR) of Laboratory-Compacted Soils
10	ASTM D2216	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
11	ASTM D2487	Standard Practice for Classification of Soils for Engineering purposes(Unified Soil Classification System)
12	ASTM D2488	Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)
13	ASTM D3550	Standard Practice for thick Wall, Ring-lined, Split Barrel, Drive Sampling of Soils
14	ASTM D4221	Standard Test Method for Dispersive Characteristics of Clay Soil by Double Hydrometer
15	ASTM D4318	Standard Test Method for Determining the LL, PL & PI of Soils
16	ASTM D4718	Standard Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles
17	ASTM D4959	Standard Test Method for Determination of Water (Moisture) Content of Soil by Direct Heating
18	ASTM D6026	Standard Practice for Using Significant Digits in Geotechnical Data
19	ASTM D6913	Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
20	AASHTO T224	Standard Method of Test for Correction for Coarse Particles in the Soil Compaction Test

Table 2. List of Certified Aggregate (Fine and Coarse) Tests

No	Test Method	Test Procedure Title
1	ASTM C29	Standard Test Method for Unit Weight and Voids in Aggregate
2	ASTM C70	Test Method for Surface Moisture in Fine Aggregate
3	ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
4	ASTM C117	Standard Test Method for Materials Finer than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing
5	ASTM C127	Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
6	ASTM C128	Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
7	ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size in the Los Angeles Machine
8	ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
9	ASTM C142	Standard Test Method for Clay Lumps and Friable Particles in Aggregates
10	ASTM C535	Standard Test Method for Resistance to Large Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
11	ASTM C566	Standard Test Method for Total Evaporable Moisture Content of Aggregate by Drying
12	ASTM C702	Standard Practice for Reducing Sample of Aggregate to Testing Size
13	ASTM D75	Standard Practice for Sampling Aggregates
14	ASTM D2419	Standard Test Method for Sand Equivalent Value of Soil and Fine Aggregate
15	ASTM D4791	Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
16	ASTM D4944	Standard Test Method for Field Determination of Water (Moisture) Content of Soil by The Calcium Carbide Gas Pressure Tester
17	ASTM D5079	Standard Practice for Preserving and Transporting Rock Core Samples
18	ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate

Table 3. List of Certified Cement, Mortar & Concrete Tests

No	Test Method	Test Procedure Title
1	ASTM C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
2	ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
3	ASTM C42	Standard Test Method for Obtaining and Testing Drilled Cores and Sewed Beams of Concrete
4	ASTM C109	Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
5	ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
6	ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
7	ASTM C187	Standard Test Method for Normal Consistency of Hydraulic Cement

No	Test Method	Test Procedure Title
8	ASTM C188	Standard Test Method for Density of Hydraulic Cement
9	ASTM C191	Standard Test Method for Time Setting of Hydraulic Cement by Vicat Needle
10	ASTM C192	Standard Practice for Making and Curing Concrete Test Specimens in the laboratory
11	ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
12	ASTM C617	Standard Practice for Capping Cylindrical Concrete Specimens
13	ASTM C642	Standard Test Method for Density, Absorption and Voids in Hardened Concrete
14	ASTM C1019	Standard Test Method for Sampling and Testing Grout
15	ASTM C1064	Standard Test Method for Temperature of Freshly Mixed Hydraulic Cement Concrete
16	ASTM C1437	Standard Test Method for Flow of Hydraulic Cement Mortar

Table 4. List of Certified Stone, Bricks & Masonry Units Tests

No	Test Method	Test Procedure Title
1	ASTM C97	Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone
2	ASTM C170	Standard Test Method for Compressive Strength of Dimension Stone
3	ASTM C67	Standard Test Methods for Sampling and Testing Brick
4	ASTM C140	Standard Test Method for Sampling and Testing Concrete Masonry Units and Related Units
5	ASTM C1552	Standard Practice for Capping Concrete Masonry Units, Related Units and Masonry Prisms for Compression Testing