



CORPORATE SUMMARY

Advanced Terra Testing, Inc. (ATT) is a full-scope, state-of-the-art geotechnical testing laboratory providing advanced capability in soil & rock mechanics and geosynthetics testing services. Established in 1984, ATT has performed more than 1000 projects for more than 400 commercial and governmental clients (including major geotechnical programs at several U.S. DOE and DOD sites). ATT has provided geotechnical testing services for projects (ranging from a few days to several years' duration) in all of the 50 states and 23 foreign countries. Our principals and associates have a cumulative 140+ years of experience in applied geotechnical testing.

ATT provides physical properties test data for geotechnical, seismic, and hydrologic design analyses, construction quality assurance, and regulation required pre-construction testing. The laboratory provides field emulation testing of waste/geosynthetic/soil/fill/and/or rock sequences for a wide variety of civil and environmental projects such as construction, engineering, waste, design, architectural, mining, oil & gas, chemical, and manufacturing industry projects. In addition, ATT provides field sampling and testing services including design, installation, and management of field laboratories, Manufacturing Quality Assurance (MQA) for geosynthetics products and Construction Quality Assurance (CQA) field services for civil project support. We also provide consultation on design of laboratory testing and field sample collection programs.

ATT is a qualified small business with a staff of 12 experienced and trained permanent and part-time technicians and associates with extensive and complementary experience in soil, rock, and geosynthetics sampling and testing. ATT operates under a full suite of formal Quality Assurance Procedures, compliant with NQA-1 and ISO 9000, which have been audited and approved by numerous clients. Included are standard technical and sample handling and tracking procedures. We also possess a Radioactive Materials License (No. 896-01) issued by the State of Colorado.

Soil Mechanics: Tests include the basic index soils analyses (soil classification, compaction, moisture-density, rigid wall permeability, single-plane and double-plane direct shear); vadose zone hydraulic tests (capillary moisture retention characteristics, Bruce-Klute diffusivity analysis, air permeability); sophisticated design-related strength tests (static and dynamic triaxial shear); and performance/conformance related hydraulic properties (gradient-controlled and flow-controlled back pressure saturated permeability tests, long-term leachate compatibility analyses).

Rock Mechanics: Provided are static and dynamic strength tests such as uniaxial and triaxial (to 10,000 psi confining stress) compressive strength with elastic moduli, differential strain curve analyses, Brazilian Disc tension tests, direct tension tests and ultrasonic pulse velocity tests. Also provided are index tests such as point load tests, moisture content, density, porosity, slake durability, and direct shear tests on rock discontinuities.

Geosynthetics Testing: Applications include large scale design performance or compliance tests such as direct shear testing relative to geosynthetics & soils interface friction, geostatic puncture resistance, multiaxial burst analyses, and hydrostatic point stress, as well as more standard index tests, including tensile, tear, hydraulic properties (in-plane flow and permittivity), puncture, bonded seam strength, and mass, thickness and dimensional stability.



Testing Services

SOIL MECHANICS

Moisture & Density
Moisture Content
Atterberg Limits
Specific Gravity
Grain Size Analysis
Hydrometer Analysis
Proctor Compaction
Maximum/Minimum Index Density
California Bearing Ratio
Rigid Wall Permeability
Triaxial Permeability
Consolidation
Unconfined Compression
Direct Shear
Triaxial Shear
Dynamic Shear Modulus
Dynamic Liquefaction Potential
Air Permeability
CQA Services

ROCK MECHANICS

Direct Shear
Unconfined Compressive Strength
Triaxial Compressive Strength
Direct and Indirect Tensile Strength
Static & Dynamic Moduli
Slake Durability
Point Load
Sonic Velocity
Modulus of Rupture
Moisture & Density
Time/Stress Related Creep

GEOSYNTHETICS

Apparent Opening Size
Index and Performance Bursting Strength
Compression Strength & Set
Dimensional Stability (geomembranes)
Shore Hardness
Low Temperature Impact
Node Junction Strength
Thickness
Mass Per Unit Area
Modulus of Elasticity
Permeability, Permittivity, Transmissivity,
Planar Flow
Index Tensile Properties
Puncture Resistance
Ply Adhesion
Seam Evaluation
Specific Gravity
Tear Resistance
Temperature Stability
Volatile Loss
Water Absorption/Water Extraction
Water Vapor Transmission
Direct Shear - index and performance level
Hydrostatic Puncture Resistance
Multiaxial Load/Strain
Tensile Creep
Wide-width Tensile Properties
Eccentric (angled) Load
Geostatic Point Stress (puncture resistance)
Manufacturing Quality Assurance Testing
Field Quality Assurance Testing & Inspection
EPA 9090 Immersion/Testing
MQA/CQA Services