



QGEC

Qatar Geotechnical
& Environmental
قطر للبيئة وهندسة التربة

CORPORATE PROFILE

ABOUT US

Qatar Geotechnical and Environmental Company (QGEC) is a member of Arabian Construction Engineering Company (ACEC) and is affiliated with Tolunay-Wong Engineers (TWEI).

QGEC was established in 2003 in Qatar and provides services in the field of geotechnical, geoscience, environmental and materials engineering, structural assessment and pavement evaluation for infrastructure, onshore and offshore pipelines, power, energy development and hydrocarbon resource projects.

QGEC services are performed using state of the art technologies and according to international standards, through QGEC personnel expertise and the extensive experience of TWEI based in Houston, Texas – USA and provides services in geotechnical engineering, geological, geophysical, environmental and materials testing.

2003
Established

100+
Team

300+
Approved Test List

1000+
Geotechnical Projects

2000+
Construction Materials Projects



INTERNATIONAL & ACCREDITATION CERTIFICATES

QGEC has ISO 9001:2015 Certified Quality Management Systems, ISO 45001:2018 Certified Occupational Health and Safety Management Systems, ISO 14001:2015 Certified Environmental Management Systems and International Accreditation Service (IAS) Certified for Testing Laboratories (AC89) in compliance with ISO/IEC Standard 17025:2017. QGEC IS approved by Qatar Standard as a Testing Laboratory and Management System certification Body.





MISSION & VISION

QGEC is determined to provide an exceptional experience to our customers. As an independent laboratory, our core advantage in testing, compliance & inspection proved to be the best-in-class.

QGEC is dedicated to being a leading provider of Geoscience & Material Testing Services in Qatar and is committed to achieve total customer satisfaction by providing testing services as per relevant standards. The Company is committed to providing:

- ✓ Excellent testing services by complying with the requirements of ISO17025
- ✓ Accountability in testing, certified technicians and engineers.
- ✓ Requirements of international standards and customers.
- ✓ Continual improvement in performance, machinery and skills.
- ✓ Motivation for all employees.

LOCAL GOVERNMENT APPROVALS

QGEC is approved by Local Government Authorities and has passed the Certificate of Conformity for the General Requirements of Materials Testing Laboratory, and Certificate of Conformity for the Requirements of Geotechnical Soil Investigation Firm. Likewise, QGEC Company is in the Approved List of Local Laboratories of Ashghal/Public Work Authority (PWA).



GEOTECHNICAL SERVICES

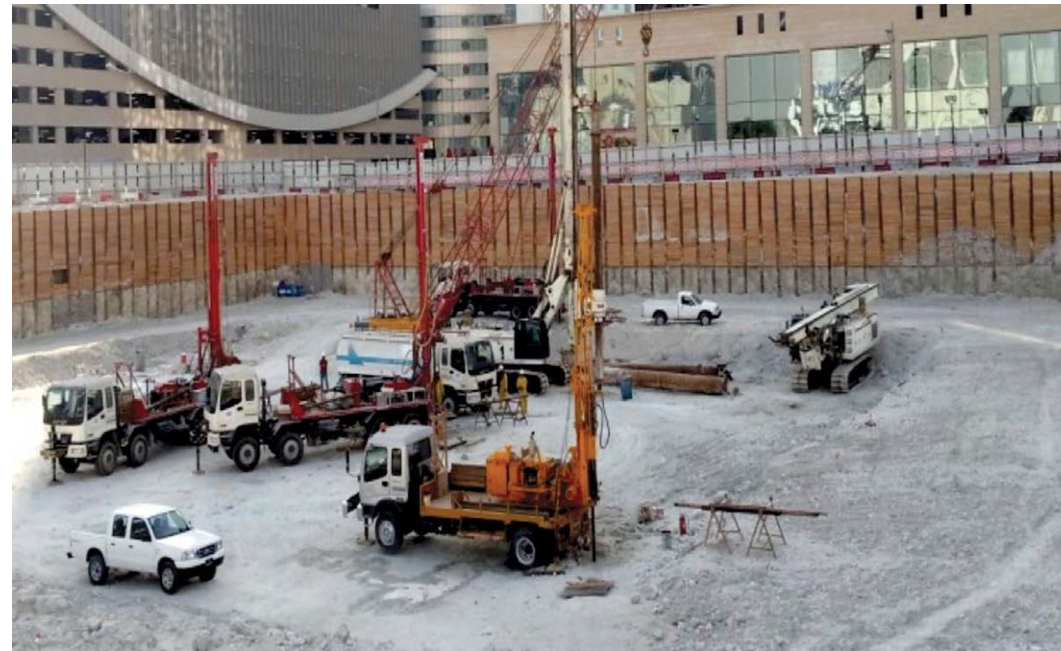
QGEC specialises in comprehensive Geotechnical Field Studies to assess surface and subsurface conditions at proposed project sites. The data and parameters obtained support engineers in designing safe, cost-effective, and durable foundations and earthworks.

Our geotechnical field studies also cover environmental and groundwater investigations, as well as both shallow and deep geotechnical studies tailored for civil engineering applications.

In addition, QGEC provides installation of advanced monitoring equipment and conducts a wide range of geotechnical testing to ensure reliable and accurate results.

Geotechnical Field Testing Include but not limited to:

- Falling head permeability
- Constant head permeability
- Standard penetration test (SPT)
- Percolation / Infiltration testing
- Packer testing
- Pressure-meter testing
- Soil Electrical resistivity
- Soil Thermal Resistivity
- Geotechnical core logging and description
- Installation of standpipe piezometers for groundwater monitoring



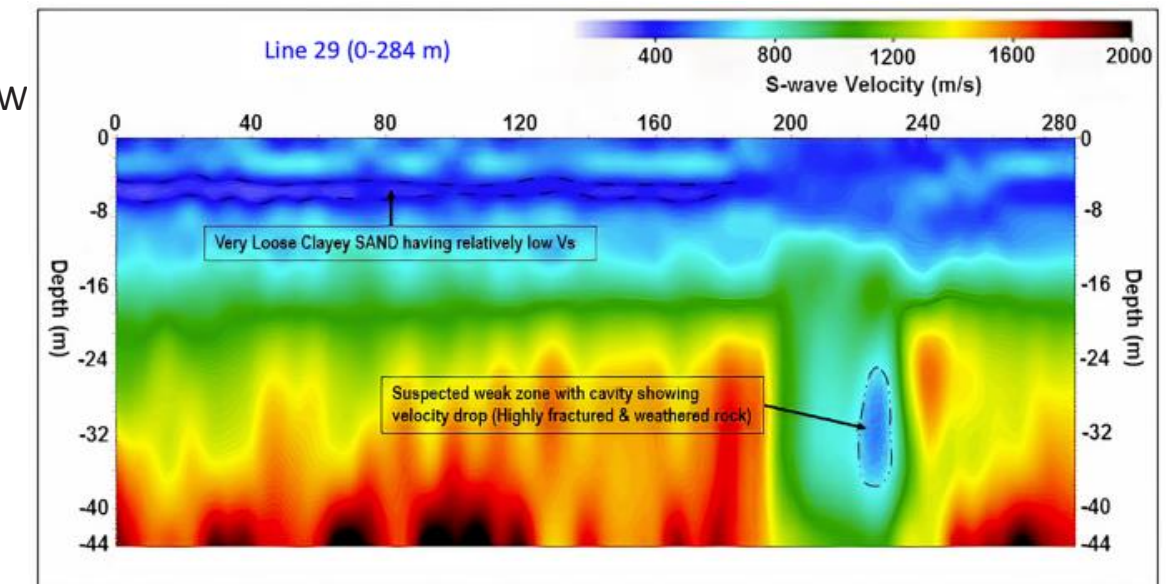
GEOPHYSICAL SERVICES

QGEC offers a wide range of geophysical services that provide reliable engineering solutions. Our expertise includes the detection of cavities and fracture zones extending up to 30.0 m below the existing ground level using Multi-Channel Analysis of Surface Waves (MASW), as well as the determination of dynamic subsurface properties down to 50.0 m depth through Downhole Seismic Testing.

Our geophysicists are highly trained and experienced, ensuring accurate and dependable results. By integrating geophysical data with geotechnical investigation findings, QGEC delivers comprehensive and reliable interpretations for engineering projects.

Geophysical Services Provided by QGEC:

- Multi-Channel Analysis of Surface Waves (MASW)
- Downhole Seismic Testing
- Crosshole Seismic Testing
- Electrical Resistivity Tomography (ERT)
- Full-Wave Sonic Analysis



QGEC LABORATORY

QGEC laboratory has been accredited by IAS since 2011 and meets the requirements of Accreditation Criteria for Testing Laboratories, has demonstrated compliance with ISO/IEC Standard 17025:2005, General requirements for competence of testing and calibration laboratories.

QGEC always invests to improve and meet every client's general requirements on Construction Materials Testing and Geotechnical Soil Investigation.

We are equipped with the most modern and updated versions of high-quality run-of-software to raise standards of our tests and minimize human errors.



CONSTRUCTION MATERIALS TESTING

QGEC performs materials testing for quality control during Construction, Geotechnical Investigations, Pavement Evaluations, and Structural Condition Assessments.

CONSTRUCTION QUALITY CONTROL TESTING

QGEC facility is fully equipped to test soil, rock, aggregates, hot mix asphalt, asphalt binder, concrete, mortar, grout and steel.

Our certified and experienced material technicians are supervised and supplied with the latest testing equipment for accurate results

Additionally, we can set up On-Site Testing Laboratories with complete testing capabilities directly to any construction site. Our clients can contact our construction quality control testing services on a full-time or as-needed basis.



QGEC TESTS

- ✓ Soil Tests
- ✓ Steel Tests
- ✓ Road and Pavement Tests
- ✓ Fine and Coarse Aggregate Tests
- ✓ Fresh and Hardened Concrete Tests
- ✓ Masonry Blocks and Paving Units
- ✓ Performance Graded Asphalt Binder Tests
- ✓ Performance Tests for Asphalt Mixtures
- ✓ Geotechnical Tests and Site Investigation
- ✓ Various Environmental Water Tests as per International Standard and QCS - Qatar Specifications



PAVEMENT ASSESSMENT

- ✓ Falling Weight Deflectometer (FWD)
- ✓ Benkelman Beam Test
- ✓ Dynamic Cone Penetrometer (DCP)
- ✓ Ground Penetrating Radar (GPR)
- ✓ Skid Resistance Testing
- ✓ International Roughness Index (IRI)
- ✓ Straight Edge test



STRUCTURAL ASSESSMENT

- ✓ Petrographic Examination
- ✓ Ultrasonic Pulse Velocity (UPV) Test
- ✓ Half Cell Potential Test
- ✓ Carbonation Depth
- ✓ Crack Monitoring
- ✓ GPR Scanning
- ✓ Cover Meter Measurement
- ✓ Schmidt Hammer Test
- ✓ Coring Into Reinforcement Concrete
- ✓ Compressive Strength Test
- ✓ Chloride and Sulphate Content



ENVIRONMENTAL CONSULTATION SERVICES

- ✓ Energy and Environmental audits
- ✓ Elaboration of sustainable development strategies, Consultancy services for integrated sustainable development projects
- ✓ Environmental Project assessment
- ✓ Project Studies in renewable energies, especially solar energy, Project studies in Energy Efficiency
- ✓ Technico-economic studies in energy
- ✓ Technico-economic studies for water and environment conservation
- ✓ Strategic studies in the Energy sector



ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

- ✓ Marine Seismic Surveys
- ✓ Assessing impacts on marine environments
- ✓ Evaluating and managing noise impacts
- ✓ Marine Baseline monitoring
- ✓ underwater videography
- ✓ Climate change
- ✓ Compliance with permits
- ✓ Contaminated soils and remediation
- ✓ Health and safety solutions
- ✓ Planning and evaluation of the impact on the environment
- ✓ Waste and resource management



ENVIRONMENTAL NOISE MONITORING SERVICES

- ✓ Noise monitoring involves measuring and analyzing sound levels in a specific environment to ensure compliance with regulations and standards, and to identify potential noise pollution or health risks. It's a crucial step in various industries, including construction, environmental monitoring, and occupational health, to protect hearing health, comply with regulations, and improve working conditions.

- ✓ **Purpose:**

To assess noise levels in a specific environment, ensure compliance with noise regulations, and identify noise sources.

- ✓ **Methods:**

Noise monitoring involves measuring sound levels using sound level meters or noise monitoring stations and analyzing sound frequencies.

- ✓ **Types of monitoring:**

Noise monitoring can be done using stationary, mobile, or even personal devices.



ENVIRONMENTAL AIR QUALITY MONITORING SERVICES

- ✓ Air quality monitoring involves measuring and tracking levels of pollutants in the atmosphere to protect public health and the environment. This process helps assess pollution levels, understand trends, and inform regulatory actions, allowing for effective environmental policies and clean air standards.
- ✓ **Purpose:**
To assess air pollution levels, identify sources of pollution, and evaluate the effectiveness of pollution control measures.
- ✓ **Methods:**
Air quality monitoring involves measuring concentrations of specific pollutants, such as particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide, carbon monoxide, and other gases.
- ✓ **Types of monitoring:**
Air quality monitoring can be conducted using stationary or mobile devices and can be passive or active according to London Air Quality Network.



CERTIFICATION OF PERSONNEL

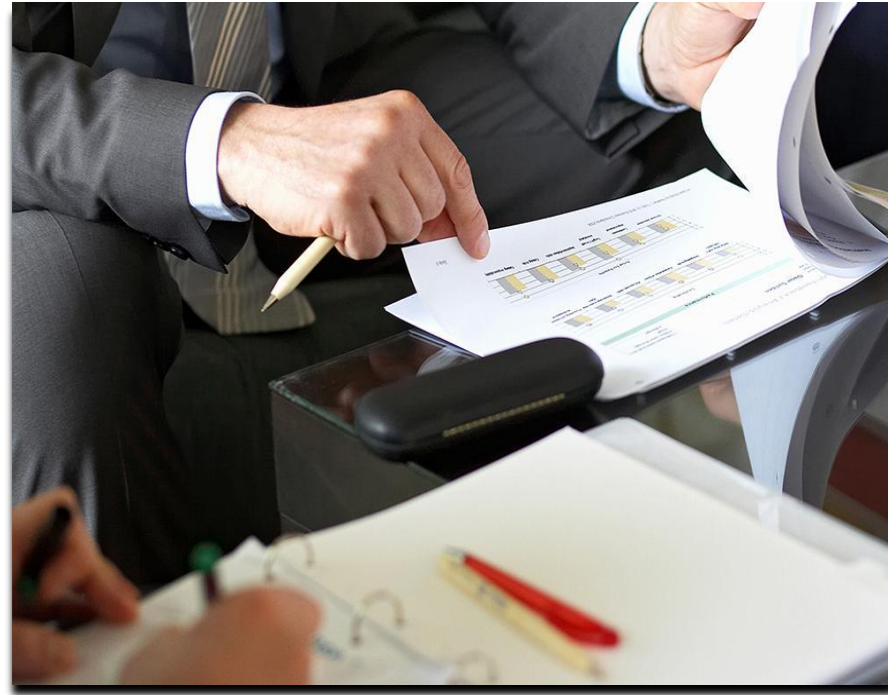
- ✓ Clear competitive advantage in the labor market
- ✓ No certificates bear unlimited validity
- ✓ Personal certificates always indicate a current competence and commitment to training or proof of professional experience
- ✓ TÜV AUSTRIA certified qualifications in the areas of service, quality, technology, safety, and the environment
- ✓ welding and brazing, quality management and auditing, environment and energy commissioner, competence according to ÖNORM F 1053, safety expertise, process management, training in adult education, event management, consultant for medical products, wound care person, senior coaching, hygienic manager, color, style, image consultant, and many more.



CERTIFICATION SCOPE

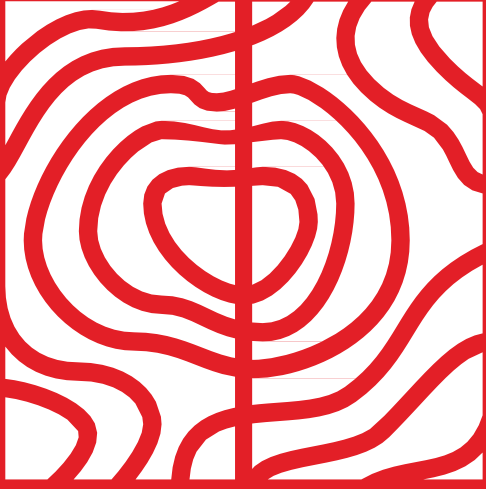
Certification of Management Systems

- ✓ Quality: EN 9001, EN 29990
(Quality Management for Learning Services)
- ✓ Environment and Energy: EN 140001, EN 50001, EMAS
- ✓ Occupational Health and Safety: EN 45001,
SCC, SCP, SA 8000
- ✓ Risk Management and Information Technology:
ISO 31000, ONR 49001, ISO 27001, ISO 20000
- ✓ Healthcare: EN 15224
- ✓ Transport: EN 13816, DIN 28000, SQAS
- ✓ Disability and Diversity Management
- ✓ Sectoral Certificates (cleaners, accountants, and many more)
- ✓ job and family / college and family



MAJOR CLIENTS





QGEC

Qatar Geotechnical
& Environmental
قطر للبيئة وهندسة التربة

TEL +(974) 4450 1473 /74 | FAX +(974) 4450 1537

MAIN@QGEC.NET | WWW.QGEC.NET

Street 18, Gate 40, Industrial Area
P.O. Box: 22054
Doha, Qatar

