“Quality is not an act, it is a habit.”

Aristotle
GEOTECH S.A. founded in 1993, is a diversified Oilfield Services Company in Greece, which throughout the time has emerged in being with significant expertise in Oil & Gas Operations.

GEOTECH S.A. is committed in doing business in accordance with sustainable development, which means that it strives towards integrating economic, environmental and social factors in its daily operations.

GEOTECH S.A. is trusted to deliver superior results to a variety of Clients to the upstream sector of Oil & Gas industry.
COMPANY VALUES

- Across the board provision of industry optimum practices.
- Rapid response capability to meet Client’s needs.
- Proactively present comprehensive and effective solutions to Client.
- Ability to develop long term synergies and alliances with Clients and Contractors, ensures successful operations.
- Ethical and trustworthy, display unflagging integrity in all relationships and dealings.

Our Customers are treated with the utmost respect, honesty and value.
OUR MISSION

❖ Provide Integrated Oil Field Services.
❖ Promote creativity, flexibility and innovation.
❖ Satisfy and exceed Client’s requirements, demands and expectations.
❖ Strive to develop long-term relationships and partnerships with Clients while being in Synergies with other Companies in the same sector.
❖ Continue to grow on international activities and meet the demands of the Greek market.
❖ Ensure highly trained, experienced and motivated Employees.
❖ Strive for continual improvements in Health, Safety, Environment and Quality.
❖ Strive for continual improvements in Efficiency and Profitability.
OUR VISION

GEOTECH S.A. priority is to provide integrated Onshore and Offshore Drilling and Oil Field Services with highly experienced Personnel.

Company’s commitment and employee’s responsibility is to

✓ continually exceed industry standards for Quality, Health, Safety and Environment

✓ continually improve Efficiency and Profitability.

AREAS OF OPERATION

Europe: Greece, Albania, FYROM

Africa: Libya, Tunisia, Sudan

Middle East: UAE, Iraq

**BUSINESS OBJECTIVES:**
- Create and promote partnership relations with Clients and Suppliers
- Fulfill all Client’s expectations and constantly improve its services
- Continuous monitoring of global development in the fields of interest.
- Employees are continuously educated, trained and motivated to become capable of flawless performance.
- Work in compliance with adopted standards, specifications and any regulatory requirements
- Permanently monitoring and improving the Quality Management System.

**SCOPE OF SUPPLY:**
- WELL LOGGING AND MUD LOGGING SERVICES
- EXPLORATION, EVALUATION AND MANAGEMENT OF UNDERGROUND ENERGY RESOURCES
- TRADE OF GEOTHERMAL AND LOGGING EQUIPMENT

The strategic commitment and objective of GEOTECH S.A. is to become a regionally recognized oilfield service contractor.
GEOTECH S.A. has implemented and maintains Health, Safety and Environmental Management System in order to protect Personnel, equipment, environment and operator’s goods against injuries, damages and losses during the operations.

The HSMS and IMS are:

- Designed and implemented in accordance with OHSAS 18001:2007 specification and ISO 14001:2004 + Cor.2009 standard respectively
- Harmonized with the requirements of oil and gas producers
- Containing and implemented continual improvement system to achieve improvements in overall HS&E performances
- Fully integrated into Company’s management system
- Certified and periodically audited by TUV HELLAS.
Health and Safety targets are:

- No occupational injuries
- No fatalities
- LTI free operations

Environmental targets are:

- No environmental incidents
- No statutory environmental liabilities
- Environmentally friendly operations

**Development of a Contract HSE Plan and Waste Management Plan is Geotech standard.**

**HSE management is just one aspect of managing the business as a whole.**

- The set HSMS & IMS targets and objectives are a part of Company’s strategic targets and objectives.
- Company is committed to constantly improve HSE performance.
Geotech S.A. Employees have a **high level of know-how and experience**. Workforce and know-how present key values for business success. Employees and their development are a continuous strategic priority for the Company. Company continuously **invests in education and training** of Employees. 95% of Employees is certified with international accreditations. Develop and promote **good team relations and efficient communication** among employees. Promote **acknowledgements and awards** for employee commitment and achievements.

**EDUCATIONAL STRUCTURE OF EMPLOYEES**

![Pie chart showing educational structure]

- Technological Education
- University Degree
- General Schooling
INTTEGRATED OIL & GAS SERVICES

GEOTECH S.A.

- DRILLING
- WELL SERVICES
- WORK OVER ENGINEERING
- UNDERGROUND GAS STORAGE

- Well Logging
- Slick Line & Wireline
- Coil Tubing & Nitrogen
- Cementing & Stimulation Services
- Pipe Recovery
- Mud Logging Services
- Fishing Tools and Services
- H₂S Services
- Bottom Hole Sampling

- Geophysical Surveys
- Pile Testing
- Environmental Consulting
- Geothermal Energy
- Water Monitoring
- Field Development
- Project Management
- Geotechnical applications

MAINTENANCE

- Crude Oil Pipeline
- Process Machinery Service
- Preventive Maintenance System
- Oil tools Service

OTHER SERVICES

- Geophysical Surveys
- Pile Testing
- Environmental Consulting
- Geothermal Energy
- Water Monitoring
- Field Development
- Project Management
- Geotechnical applications
The GRT 103H rig is a 1080 HP land drilling rig specifically engineered and designed takes into account features that will lower the cost per well.

Main advantages of the GRT 103H rig 1080HP

- **Lower well costs for the operator**
  - Repetition of best practice and consistent operations through rig automation
  - Integrated Design
  - Quicker rig moves, small footprint

- **Reduction of human exposure**

- **Lower NPT (Non Productive Time) through**
  - Redundancy of all major components
  - Remote support and maintenance

- **Low environnemental impact**

Advantages of Automated Drilling

- Automated tripping and connections
- Remove people from drill floor
- No casing crews in rig
- Automated handling of tubulars
- Consistent and repeatable maximum tripping speed
- Can keep constant Weight on Bit and/or constant Standpipe Pressure
- Accurate load measurement on block
- Improved rate of penetration
- Optimized bit performance and life
Drilling and Petroleum Engineering

- Drilling programs, casing & drill string assemblies designs, well site supervision and contracts.
- Completion programs, tubular designs, well site supervision and contracts.
- Coordinate the preparation of drilling and completion procedures for all well types.
- Oversee drilling/completion and offer technical advice to achieve economical and satisfactory progress.
- Recommend / coordinate remedial and stimulation actions on deficient wells
- Well performance prediction, Production optimization and Monitoring
- End of well summary reports.
- Quotation of third party services.
Reservoir Engineering

- Reservoir analysis, reserves determination and characterization, well test analysis, field development and reservoir management.
- Infill well drilling design.
- Artificial Lift design and installation.
- Recommend selection of producing equipment.
- Devise methods to improve well production.
- General property & Acquisition Analyses.
- Enhanced recovery, fluid injection design and implementation.
- Water, steam and polymer flood management.
- Material Balance and Production forecasts.
- Valuation and appraisal of oil and gas wells, facilities and properties.
- Incorporate all above into a history matched dynamic reservoir model.
- Production Accounting.
Work Over Engineering

- Detailed cost estimates for AFE proposal
- Quotation of third party services
- Well Work Over programs, contracts and equipment bidding
- Well-site operations supervision
- Regulatory reporting
- Daily work over reports
- End of well summary reports
- Post well synopsis
Underground Gas Storage

High quality expertise is offered for:

- Optimize the capacity of underground gas storage facilities based on the market needs.
- Reservoir Simulation and monitoring applications in order to optimize production and recovery.
- Project management, supervision and coordination of Gas Production Operations
- Detailed drilling and completion programs for all well types
- Detailed cost estimates for AFE proposal
- Field and Regulatory reporting system
Environmental Engineering

High quality expertise is offered in the fields of:

- Environmental Impact Assessments (EIA)
- Contingency Planning (CP)
- Antipollution / oil spill response
- Emissions Trading Scheme (ETS)
GEOTECH S.A. focuses on the mission to provide critical data to ensure optimum well performance and longevity.

OPEN HOLE WELL LOGGING
- Resistivity Imaging
- Acoustic Imaging
- Density
- Orientation
- Neutron
- Spectral Gamma Ray
- Formation Testing
- Caliper

CASED HOLE WELL LOGGING
- Production logging
- Radial Cement Bond
- Well Integrity
- Perforation services
- Pipe recovery
- Reservoir monitoring

SLICK LINE SERVICES
- Slick Line Operations
- Cable units for SRO measurements
- BOP and surface pressure control equipment
- Mechanical gauges
- Electronic memory gauges
- Surface Read Out gauges
GEOTECH S.A.

OPEN HOLE WELL LOGGING
Wireline equipment used and logging technology applied by GEOTECH S.A. are developed and produced by professional companies such as:
- Antares Datensysteme GmbH,
- Robertson Geologging,
- Probe1
- DSS.

- GEOTECH S.A. provides Open Hole Logging Services using a slim oilfield digital logging equipment.
- This is specifically designed for conventional oil, gas, shale gas and CBM operations.
- With a maximum tool diameter of 2.5” (63mm), the tools offer a light-weight cost effective option in small diameter holes or in wells with restricted access.

Typically Quad Tool String
- Gamma Ray, Telemetry, CCL, Mud Resistivity
- Neutron
- Litho-Density
- Sonic
- Dual Induction
- SP
- Orientation
- 3-6 Arm caliper
CASED HOLE WELL LOGGING

- Production Logging Services
  - Production Logging Tools Memory and Surface Read Out
  - PLT (1.375'', 1.44'', 1.69'', 1.75'', 2.25'')

- Casing Tubing Investigation
  - Multi Finger Tool 24 (24 Fingers)
  - Multi Finger Tool 40 (40 Fingers)
  - Multi Finger Tool 60 (60 Fingers)

- Downhole Camera Systems (Color Video, Multi Snapshots)

- Gyro survey applications
  - E-line / Memory Keeper Wellbore Orientation Survey (1.75'', 1.85'', 2.125'')

- Radial Cement Bond Log
  - 2 ¾ OD Radial CBL
Through Tubing and Casing perforating, can accommodate diameters ranging from 1-3/8˝ to 4-1/2˝. Gun systems used including expendable strip carrier, retrievable tubing gun, and expendable hallow carrier guns allow to accomplish any perforating needs.

Tubing Conveyed Perforating, used with coiled tubing is able to perforate long intervals using high-pressure differentials while also allowing for vertical and horizontal intervention.

Rig Environmental Detonators, Geotech uses advanced electro-explosives devices that are designed specifically for use with perforating guns and other explosive devices where a pressure resistant detonator is required. Enhanced safety characteristics allow other well activities to continue uninterrupted while perforating.
Company has highly specialized and experienced personnel to provide all service required in pipe recovery regardless borehole conditions.

Company’s pipe recovery Professionals have acquired technical competence through years of experience and training and can offer all services related such as:

- Free point Services
- Back-off Services
- Drill Collar Severing Tool
- Tubing Jet Cutters Services
- Circulation Puncher
- Split shoot Services
- Chemical Cutters Services
- Coil Tubing Cutters Services
- RF Safety Detonator System
**Slick Line**

- Depth Determination
- BHP/BHT Record
- Bailing
- Pulling & Setting subsurface Safety Devices
- Gas Lift Operations
- Tubing leak test
- Open & Close Sliding Sleeves
- Tubing Gauge Calibration
- Fishing Operation
- Memory Cased Hole Services
- Wires 0.108’’ & 0.125’’ H₂S Services
- 3’’ 10K, PCE, H₂S services

**Interpretation and Analysis**

**GEOTECH S.A.** is committed to ensure, with speed and flexibility, high quality expertise and integrated services with solutions to complex technical problems and delivering accurate results.
Bottom Hole Fluid Sampling

Bottom hole fluid sampler provides representative fluid samples which can be transferred to sample bottles without using mercury.

Manufactured from corrosion resistant materials, is suited for operations where sour gas may be present.

Based on a “positive displacement” design the well fluid pressure progressively displaces the buffer fluid at a precise, predetermined rate, which takes into account the well temperature and pressure characteristics.

Restoring the sample to its original sub surface conditions, can be achieved by using the One Phase Sampler (OPS) unit.
Coil Tubing

- Tubing sizes from sizes 1΄΄ to 1 - 1/2΄΄.
- Fluid Circulation and/or Displacement
- Cementing remedial operations
- Well Stimulation and damage removal
- Scale Removal and inhibition
- Nitrogen Lifting and well unloading
- Sand Cleanout and Wellbore Cleaning

Nitrogen Services

- Lifting
- Pipeline purging
- Displacing fluids and generating foam
- Reducing hydrostatic pressure in wells to perforate or testing
Mud Logging Units, equipment and services provided by GEOTECH S.A. are “Best in Class” and in full compliance with international standards capable to operate Onshore and Offshore.

They are fully equipped, air-conditioned, positive pressurized ML cabins which are certified according to DNV 2.7-1 standard for operations at Zone II and fireproof ability A60.

The unit is divided into:

- Geological section
- Engineering section
- Electronic section
WELL SERVICES – MUD LOGGING

GEOTECH S.A.

Hundreds measured and calculated parameters can be monitored and evaluated

- Total Depth TVD
- ROP
- Weight on hook
- Hook speed
- RPM
- WOB
- Standpipe Pressure
- Rotary Torque
- SPM & total
- Casing pressure
- Mud Flow In/Out
- Mud pH In / Out
- Temp In / Out
- Mud Conductivity In / Out
- Mud Weight In / Out
- Mud Temperature In/Out
- Mud volume variation
- Gas chromatography
- Total gas
- $H_2S$ / $CO_2$
- Bit Position
- $D$ expc
- Lag depth
- DCS
- Overpull
- Bit Hours on Bottom

Parameters presented on a computer generated comprehensive well logs.

- Mud Log
- Drilling –Tech Log
- Composite Log
- Pressure evaluation Log
- Gas ratio Log
Fishing Services

- Cased/Open hole fishing operations
- Wellbore obstructions removal
- Casing and tubing cutting services
- Milling and wash over operation
- Wellbore cleanout
- Power swivel operations
- Fishing tools redress and maintenance

H₂S Services

Extensive experience in oilfield service operations with high concentration of hydrogen sulfide (H₂S) gas (*) renders the company able to offer:

- Emergency procedures and H₂S contingency planning
- H₂S and flammable gas detection and protection
- H₂S alive in house and from external providers training courses
GEOTECH S.A. is the major holder (90%) in a Consortium, since 2005, which implements the management, operation and maintenance of Hellenic Petroleum SA oil pipeline, Thessaloniki – Skopje, with related facilities in GREECE and F.Y.R.O.M.

**Pipeline services include**
- Planning
- Engineering
- Procurement
- Project management

**Quality expertise offered for Pipeline of Hydrocarbon Transportation**
- Operation and Maintenance
- Pumping Stations
- Integrity and Corrosion Evaluation
- Cathodic Protection
- Cleaning Operations, chemical & mechanical
Greece is located in-between Central Europe, North Africa, Middle East & CIS
GEOTECH S.A. ACTIVITIES

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