



Geomechanical parameter determination

Hand in hand with in-situ stress modeling, geomechanical characterization of rock material lays the basis for any geomechanical analysis. Already a few experiments can help to better predict rock mass and reservoir behavior.

geomecon's lab is build around a high capacity loading frame with confining pressure and pore pressure system, advanced strain and micro-seismicity monitoring systems. The laboratory service portfolio comprises basic strength tests at various boundary conditions, advanced fracture mechanics testing and petrophysical characterization.

See our list of laboratory services at www.geomecon.de/lab.html.

Selected references: Queens University (Canada), Geos4 (Germany), St Galler Stadtwerke (Switzerland), Geothermie Neubrandenburg (Germany), Helmholtz Center Potsdam (Germany), Aalto University (Finland).

>>> p.t.o. for geomechanical characterization package specifications

geomecon's basic geomechanics package

geomecon offers a basic geomechanical characterization package, that requires about one meter of core material and delivers the most important parameters for 1D geomechanical modeling. Alternatively we can perform the analyses on blocks of analogue material also.

geomecon's basic package

- > delivers all basic geomechanical parameters
- > testing according to ISRM standards
- > package includes handling, specimen preparation, analysis, interpretation and reporting of results

petrophysical results

- > density
- > porosity
- > vp velocity
- > degree of anisotropy

rock mechanical results

- > uniaxial (unconfined) compressive strength
- > Mohr-Coulomb parameters
- > tensile strength
- > Mode I fracture toughness
- > static and dynamic Young's modulus
- > static and dynamic Poisson's ratio

testing plan

- > Brazilian Disk test (5x)
- > unconfined compression experiments with strain reading (3x)
- > multiple stage triaxial compression experiments at three confining pressure and pore pressure stages (5x)
- > Helium pycnometry (5x)
- > ultrasonic velocity measurements (10x)

>>> ask for your quote at solutions@geomecon.de