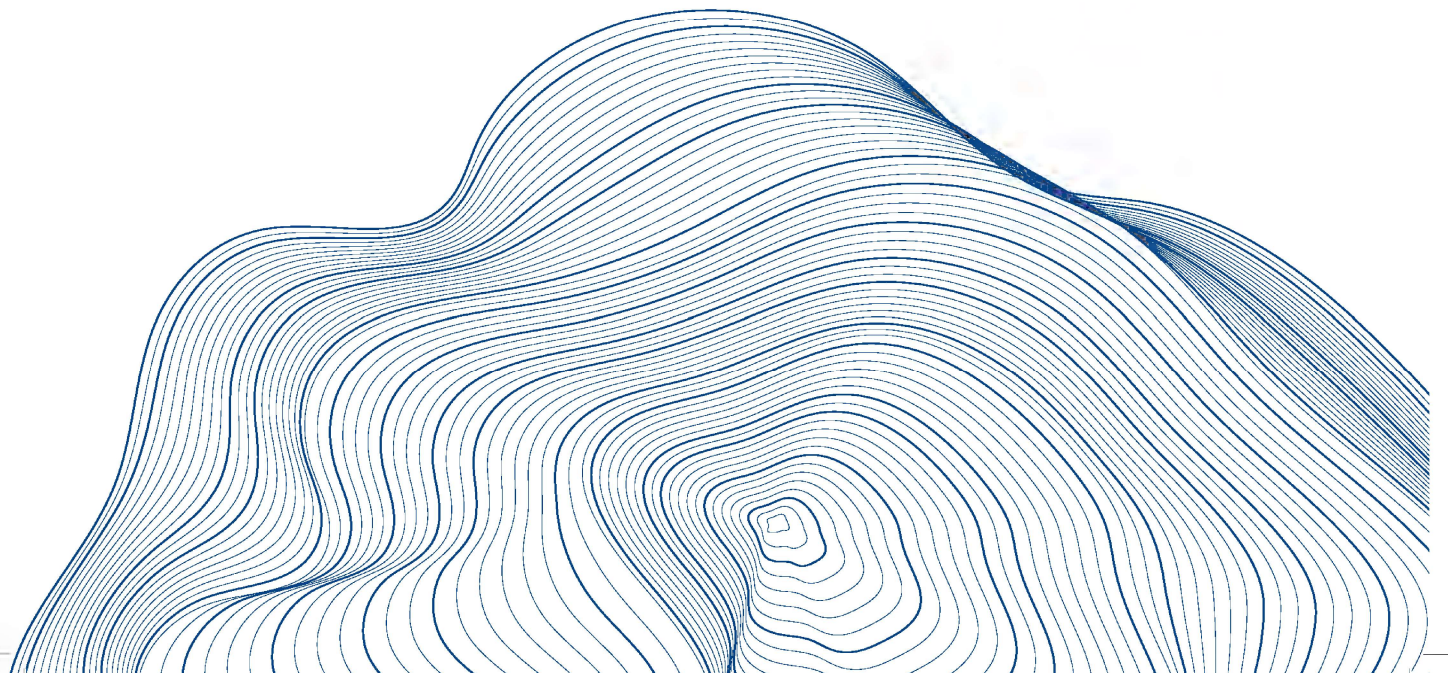


BUT GEOLOGIE
ETUDES ET CONSEILS





WHO ARE WE ? BUT Géologie

BUT Géologie is a consulting company established in Tunisia, specialized in multidisciplinary engineering. It's classified according to the Tunisian Ministry of Equipment, in category B5, approval n° 0236 and it is registered with the Tunisian Order of Engineers under n° 21497 15043 0236.

We offer the services of skilled professionals in the various disciplines of earth and environmental sciences . We provide our services particularly in the mining and quarrying fields, with a significant consideration of environmental issues.

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SERVICES



GEOLOGY



MINES AND
QUARRIES



GEOTECHNIC



HYDROGEOLOGY
HYDROLOGY



GEOMATIC



GEOPHYSICS



ENVIRONMENT

GEOLOGY FIELD

"BUT Géologie" provides you with professionals specialized in the cartography of the ground explored, structural geology, sampling, investigation of useful substances, core drilling and interpretation of reconnaissance drill data (correlations).

Conducting and interpreting reconnaissance drilling (coredrilling), supplementing and specifying the data collected during field surveys for the understanding and knowledge of the composition of the subsoil.

Through these actions, BUT Géologie intervenes in the field of mines and in particular, quarries and open-pit mines, whether for the search for new operating sites, expanding existing sites or rehabilitating derelict sites.

Terrain Mapping

Structural Geology

Sampling Work

Search For Useful Substances



MINES AND QUARRIES MANAGEMENT



> 01

Tactical & Strategic Exploration

Geological and metallogenic syntheses at regional or country level, thematic mapping with GIS, identification of targets, river sediments, soil geochemistry, etc.

Conducting and monitoring surveys for recognition, geophysics, geochemistry, correlations and interpretation of data, etc.

> 02

Pre-feasibility Study

- Precise cost estimates
- Local assessment of reserves.
- Technical and economic studies on the various operating and processing projects.
- Environmental feasibility (hydraulic, hydrogeological, ecological, socioeconomic...) and geotechnics.



> 03

Regulation of exploration and operating permits

Proposal of methods and development of operating plans, according to Tunisian standards and regulations as well as planning of development planning and rehabilitation plans for the different types of quarries: aggregates, sand, gypsum, granite, etc.

> 04

Environmental Impact Study

Identification of environmental and social consequences as the various activities of a project may have on the elements of the implantation medium.

Define and Implement mitigation measures for most negative impacts and Incidentally and optimization of Positive impacts.



> 05

Audit & Technical Assistance

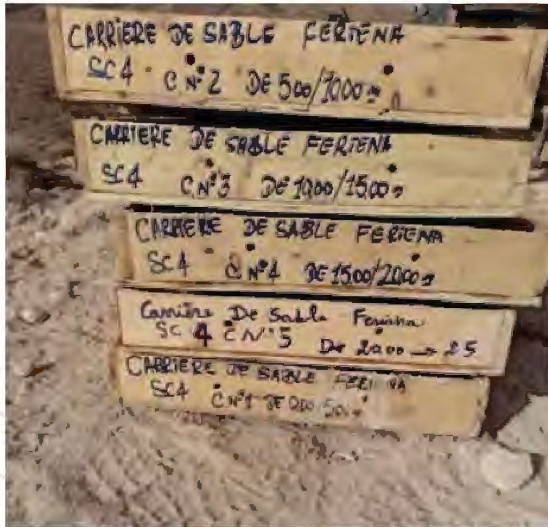
BUT Géologie also provides:

- Technical assistance, management support or total management of operating sites as well as drilling and mining work.
- Advice and technical assistance during the opening and operation phase.
- Audit and technical expertise.



GEOTECHNICS

"BUT Géologie" is your partner to perform analyses before your mining exploration projects. These include a range of operations necessary to acquire knowledge for the qualitative and quantitative evaluation of a mineral deposit.



The different approaches taken for geotechnical projects will measure or identify the following parameters:

- ↳ Lithostratigraphy and subsurface geomorphology.
- ↳ Substances levels
- ↳ Soil permeability
- ↳ The carrying capacity of a soil (penetration tests, cavity research, pressure tests, etc.).
- ↳ Selection and design of the infiltration system for wastewater or treated water (dispersal drains, infiltration bed or mound).
- ↳ Karst areas Identification.
- ↳ Conception and sizing of foundation and support projects.
- ↳ Geotechnical Investigation checking and supervising.
- ↳ Technical support on site.



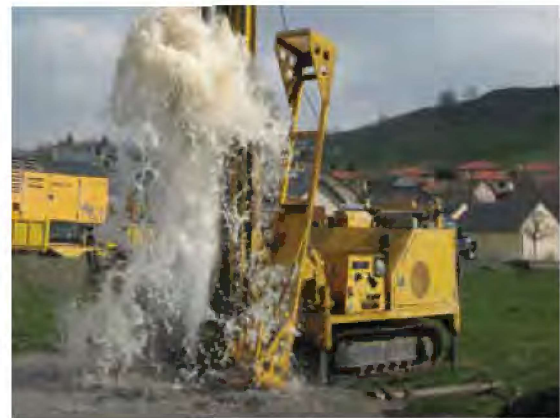
HYDROLOGY & HYDROGEOLOGY

BUT Géologie is specialized in the study of water catchments and piezometers. It provides you with a competent qualified team in the development of specifications, including water well drilling projects.

- ↳ Calculating the perimeters of prevention zones around all types of basins (wells, drains, sources, etc.).
- ↳ Determination of perimeters by conducting tracing tests by measuring transfer rates inside aquifers.
- ↳ Determination of aquifers characteristics (type, hydrodynamic parameters: porosity, permeability, transmissivity, storage coefficient, etc.).
- ↳ Estimation of aquifers reserves...
- ↳ Calculating the exploitation rate of a water well...

Our office oversees the drilling process in order to optimize the dimensioning of the structure and its equipment, according to the observations of the site.

Our team performs pumping tests and interprets the removal of wells, as well as other tasks:



GEOMATICS

"BUT Géologie" offers a wide range of expertise and services, as well as a wide range of computing tools in geographic information systems (GIS): ArcGIS, Global-Mapper, QGIS, GvSIG, Envi...

We act in a methodical way to update our skills and knowledge by integrating the latest techniques and systems.



Digitisation and vectorisation of plans (urban data, geological data, etc.).

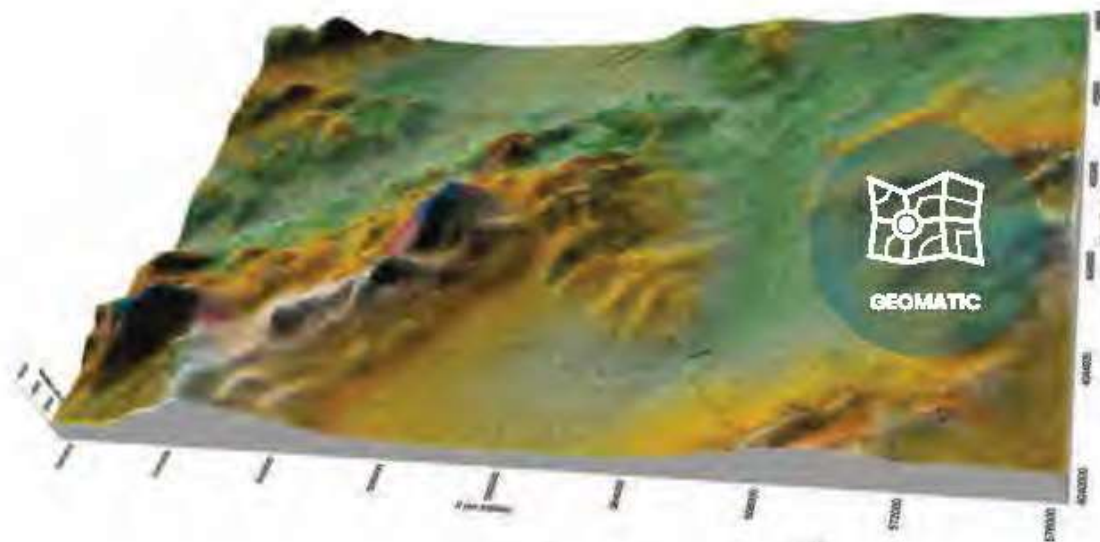
Production of the map base (raster and vector).

Design and modeling of geographic databases.

Field survey

Production of cartographic documents and creation of geolocated data.

Digital cartography



GEOPHYSICS PROSPECTING SOLUTIONS

Electrical methods

Electrical methods are mainly based on the distribution of electrical potential in the soil. Measuring the electrical resistivity of the earth produces both quantitative and qualitative results.

The geological interpretation of the results allows a distinction to be drawn between healthy rock masses, weathered areas, waterlogged areas and natural accidents.

Seismic methods

Seismic methods are useful in civil engineering and can reveal the thickness of a readily excavatable ground or position the roof of a compact bedrock.

They also make it possible to highlight deconsolidated or karstified zones within the limestone massif or evaporates.

BUT Géologie conducts impact studies of blasting operations on neighbouring villages or other sites to determine appropriate technical and security measures.

Georadar

The Georadar is a non-destructive geophysical survey technique based on the analysis of the propagation phenomena (refraction, reflection and diffraction) of high frequency electromagnetic waves.

The Georadar use is a recent technique associated with instrumental constraints that has been the object of many researches in various fields of application such as archaeology.



ENVIRONMENT

Technical assistance and support to industries in environmental projects

Environmental analysis at several scales of observation at the level of industrial units:
Cement plants, crushing and screening units...

Regulations concerning the different types of waste from an industrial activity:
Industrial waste, liquid waste, atmospheric waste, etc.

Optimization and valorization of various types of waste...

Proposal of an innovative environmental strategy.

Solving environmental problems.

Development and monitoring of Environmental and Social Management Plans (EMP).

Realization of environmental studies for industrial units: Cement plants, Crushing and Screening Units...

- Environmental impact studies
- Remediation studies
- Environmental Assessments and Audits
- Environmental notes

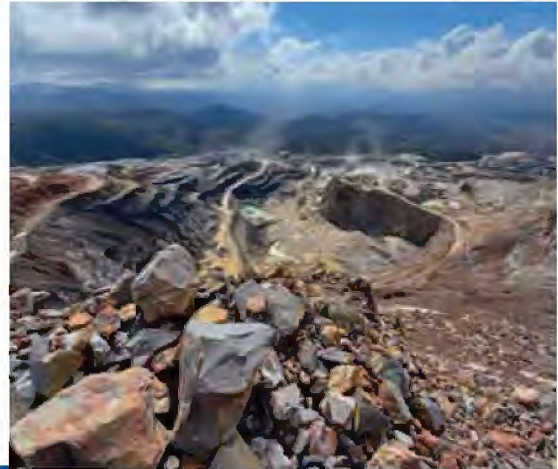


OUR ACTIVITY FIELDS

> 01

MINES AND QUARRIES

Thanks to its long experience, BUT Géologie intervenes in the field of mining and particularly open-pit quarries, whether it is for the search of new exploitation sites, the expansion of existing sites and/or the rehabilitation of abandoned sites.



> 02

SAFETY

BUT Géologie intervenes in the field of safety by elaborating hazard and safety studies in order to identify all the potential accidental risks, to evaluate their impact on people and goods, and the damage to the environment. For every hazardous phenomenon identified, prevention and protection measures are suggested and/or implemented.

> 03

BRICK FACTORIES

BUT Géologie offers a wide range of advanced technical assistance in ensuring optimal management of clay quarries, as well as monitoring of atmospheric emissions and their management.



> 04

CEMENT WORKS

BUT Géologie steps in in the fields of construction materials production, mainly cement factories, by offering services of exploration of the deposits of the raw material, and an assistance to maintain a good environmental management in the production plants.

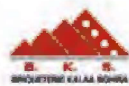
> 05

ENVIRONMENT

BUT Géologie is involved in the field of environment and nature protection by deeply assimilating the issues of sustainable development and climate change. As a result, a rigorous policy and forward-looking environmental strategy have been adopted.



They trusted us ...







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