

Geotechnical engineering and energy

INSET s.r.o has many years of experience and a sufficient personnel and technical basis for the performance of geological, geotechnical, hydrogeological and hydrochemical work, monitoring, diagnostics of building structures and expertise for construction purposes

We perform

- investigation work
- field work
- monitoring of constructions
- building diagnostics
- design work
- specific solutions
- laboratory work
- supervision of constructions
- research and development

We are certified for the performance of selected construction activities pursuant to special regulations,

authorization in the fields of, geotechnical engineering, building diagnostics and mining design,

certification of professional competence to design, perform and evaluate

- geological work in the fields of:
engineering geology, hydrogeology,
hydrochemistry, remedial geology,
environmental geology.





Storage space

We are members of several professional organizations, such as:

- International Society for Soil Mechanics and Geotechnical Engineering
- Czech Geotechnical Society
- Czech Chamber of Chartered Engineers and Technicians Engaged in Construction

We perform field evaluations from a hydrogeological, hydrochemical and geotechnical perspective. We look at ways to increase the capacity of storage spaces. We solve potential increases in lower groundwater levels and initiation of landslides, mainly due to additional loading of areas of concern.



Inspection of the drainage of storage space



Static load test



Dynamic penetration

We are experts in hydrogeological, hydrochemical, geotechnical and geodetic monitoring.

- Hydrogeological monitoring monitors the effects of a construction on changes in drainage conditions. It comprises measuring of the groundwater level with the aim of monitoring their changes and possible changes in flow direction.
- Hydrochemical monitoring comprises regular sampling of water with the aim of documenting the possible chemical influence of the environment of the construction. Water inflow and outflow are also monitored.



Traverse test
- compacting

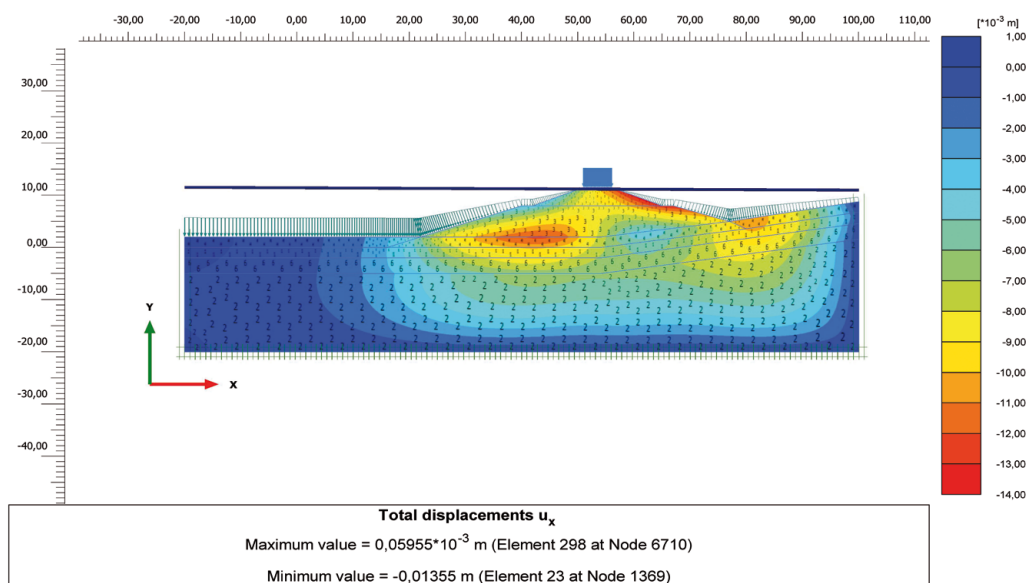


Hydrogeological borehole

- Geotechnical monitoring is focused on the monitoring of deformations in the subsoil below constructions, their stability and monitoring the displacement of individual systems.
- Geodetic monitoring is a part of geotechnical monitoring and is focused on monitoring the displacement of constructed parts of buildings.

Monitoring should be complemented by work, which incorporates the demonstration of product compliance, in particular their quality, monitoring of data from the Hydrometeorological Institute and regular reconnaissance of the monitored area.

We use the latest version of graphical software:
PLAXIS, MODFLOW, MT3D, Civil 3D, FINE, AutoCAD.



We specialize in numerical modeling of groundwater flow and the transport of contaminants, risk analysis, secondary energy products, as well as research and development.

We evaluate possible risks to buildings from an environmental perspective.

We solve geotechnical, engineering-geological, hydrogeological and hydrochemical projects. We perform numerical modeling, evaluation of deformations and stability of earth bodies. We design and implement monitoring systems, including their evaluation (warning states).



Measuring station



Deformation of industrial gypsum

We are experts in the use of secondary energy products and structures such as tailing ponds and dumping grounds.



Monitoring of seepage



Measuring the deformation of railway tracks

Rely on professionals in the field.

INSET s.r.o.
Energy division
Mánesova 1580/17
470 00 Česká Lípa
Tel.: +420 603 580 735
E-mail: energetika@inset.com