



# Site contamination assessment

## THE ASSESSMENT INCLUDES:

- IDENTIFICATION OF SOIL AND WATER CONTAMINANTS
- DETERMINATION OF AREAS FOR REMEDIATION USING HEALTH RISK ASSESSMENT



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Institute for Ecology of Industrial Areas

**Proper identification of site contamination level is the basis for taking or abandoning remediation activities and a guarantee that the site does not pose any threat to the environment, neither now nor in the future. This information may be useful in negotiating purchase-sale transactions or in making decisions on potential land development options.**

IETU offers comprehensive services in identification of soil and water contaminants (stage I) and determination of areas for remediation using health risk assessment, taking into account chemical contaminants typical of particular land use patterns: residential, industrial, and recreational (stage II). Upon the customer's request the service may be rendered in full or in part.

## Benefits for customers

- Information on the condition of soil and water environment at the investigated site, including identification of chemically contaminated areas
- Obtaining documentation necessary for applying to the Regional Directorate of Environmental Protection (RDOŚ) for exemption from the obligation of remediation in the case of areas for which no significant threat to human health or the environment was identified
- Limiting remediation activities to areas requiring remediation
- Obtaining data necessary for selection of the most effective remediation technology
- Reduction of remediation costs

## Health risk assessment

According to the Environmental Protection Law\* the procedure of assessing the occurrence of a significant risk to human health or the environment is an important factor determining the obligation and scope of remediation. Decision on the absence of such a risk allows for excluding or limiting the scope of this obligation. The exemption from the remediation obligation is possible both in the case of historical and current land surface contaminants. Obtaining a permit requires prior assessment of the occurrence of a significant risk to human health or the environment.

\* Official Journal of Laws of 2017 item 519

## Recipients of the service

- Owners and buyers of degraded areas
- Investors and managers of chemically degraded areas
- Companies performing remediation

## Contact

Stage II — Leading Expert — Prof. Eleonora Wcisło, e.wcislo@ietu.pl, ph. +48 32 254 60 31 ext. 263

Stage I — Dr. Joachim Bronder, j.bronder@ietu.pl, ph. +48 254 60 31 ext. 117



## STAGE I

### Identification of soil and water contamination

- Development of a list of contaminants on the basis of archival information and the type of business activity conducted in the studied area
- Development of a sampling point grid containing the sampling depth
- Accredited sampling of soil and groundwater
- Physicochemical analysis of soil and groundwater samples
- Assessment of biological activity of environmental samples (water, soil, sediments) using biotests
- Assessment of soil, ground and groundwater contamination level in the light of applicable legal provisions
- Determining the extent of contaminated land and the volume of waste collected at a given site
- Interpretation of results using statistical, geostatistical and GIS tools

### Our customers

Alstom Konstal S.A. Chorzów; Sandvik Polska Sp. z o.o. Katowice; Municipal Office Tychy, Faculty of Mining and Geology — Silesian University of Technology; Municipal Office Bytom; Decathlon Sp. z o.o. - Warszawa; Inwestbud Sp. z o.o. Katowice; Park Przemysłowo-Technologiczny Piekary Śląskie; Institute of Geology and Mineral Exploration of Greece.

### The quality of our services is guaranteed by

- an interdisciplinary team of experts with many years of experience in assessing the condition of the environment and health risk
- PCA accreditation of the IETU Central Laboratory for testing and sampling various chemical substances in water, soil and waste (Certificate No. AB 325)

## STAGE II

### Determination of areas for remediation using health risk assessment

- Health risk assessment connected with chemical contaminants for:
  - typical land use patterns for urban areas: residential, industrial and recreational, or for specific exposure conditions
  - specific groups of potentially exposed people (children, adults), taking into account local environmental conditions and local exposure
- Calculation of local, health-safe contents of contaminants in soil
- Identification of areas requiring remediation based on spatial distribution of health risk using analytical GIS tools

We perform health risk assessments based on methods worked out by the American Environmental Protection Agency (US EPA), using our own IT solution to support decision-making processes in the field of remediation at a local level as well as other remedial actions on chemically degraded areas.

### What the customer receives

The customer receives documentation concerning the condition of the soil and water environment of the studied area necessary for the development of a remediation plan or for applying for a decision to limit the scope or waive the obligation of remediation.

More information: [ietu.pl/en/services/](http://ietu.pl/en/services/)



AB 325

## Contact

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