

Use Case 1: Term Definition

RAG has to give a short explanation of the term „mine water“:

- Search results (relevant results marked **bold**):
 - **Definition of the term**
 - **Quantity of mine water and description of pump stations at RAG**
 - **Chemical and physical parameters of mine water**
 - Current permissions (approval procedures, current status RAG...)
 - National and international authorities (government agency, organisation...)
 - **Concept of mine water treatment**
 - Technical description of a pump station
 - Current and future treatment of mine water
 - Protection of drinking water (reservoirs)
 - Research and development projects ...

Use Case 2: Permit Application Requirements

Request for information about a pump station (e.g. for description within permit application).

- Search results (relevant results marked **bold**):
 - History of former mine location
 - **History of the pump station**
 - **Maps and layout plan**
 - **Quantity and quality of local mine water**
 - **Treatment of mine water (local)**
 - **Concept of mine water treatment (regional)**
 - **Monitoring/supervision and process control engineering**
 - **Monitoring and technical analysis**
 - **Current pumping technology**
 - Permission (for local plant)
 - Environment protection measures
 - Personal structure
 - Energy consumption

Use Case 3: Public Information Meeting

Answer to the question: „What is RAG doing for protection of drinking water reservoirs?“ (e.g. in the frame of a public information meeting)

- Search results (relevant results marked **bold**):
 - **Definitions and differences between „ground water“, „mine water“, „drinking water“**
 - **Mine water concept RAG**
 - **Analysis of mine water (chemical and physical paramter)**
 - **Protection targets of mine water pumping**
 - **Legal provisions (laws, permissions....)**
 - Current contracts (responsibility, costs...)
 - Approval procedures
 - Prognosis of future mine water quality and current expert reports for optimisation
 - Quality control measures (legal requirements and self-supervision)
 - **Threshold values of quality for discharge**
 - ...