

COGEAR

MODULE 3:

Overview of existing data in the Visp area

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COGEAR REPORT

3a.2.1.1

IGT contribution

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1. INTRODUCTION

The main goal of this task is to collect available information on the ground conditions in the area of Visp and to incorporate this data into the COGEAR data-base. This report will represent the state of this progress at the time written. Naturally data collection is an ongoing process and can be challenging, when existing data is owned by several different institutions and persons. Often legal handling of the data is an issue and can cause delays. Thus the actual state is given here, while later updating and adding additional information will be most likely.

2. AVAILABLE DATA

Most of the data incorporated into the data base up to now originated from the N9 motorway project. Additional data was available from a previous research project “ShakeVal” and other projects with involvement of IGT. An overview of the geotechnical data positions is given in Figure 1. The soil conditions at 156 locations is now available in the data base.

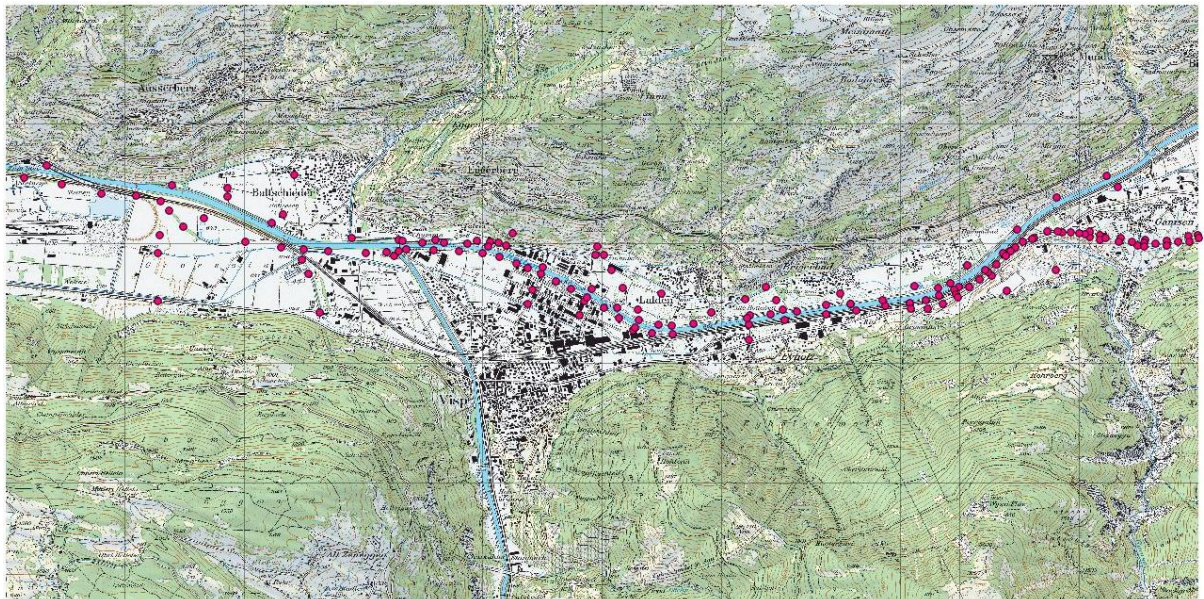


Figure 1: Overview of the existing data in the Visp area incorporated into the COGEAR Data Base.

3. DATA PREPARATION

Geotechnical Logs from Borehole data vary significantly depending on the geologist or engineer who is responsible for the logging on site. Often very detailed information is given, which has to be summarized for practical purposes and use. This has been done for all the information available and borehole logs as given in Figures 3 have been prepared. Additional information is available from the former construction site of the train station in Visp. Layers of fine silty sands can be identified in addition to more coarse material. In general, the geotechnical conditions in the Visp area consist of layers of sand and gravel, partially covered by manmade materials as well as with farmland. There is a high local variation of the distribution of the layers and in some areas sand is almost inexistent.

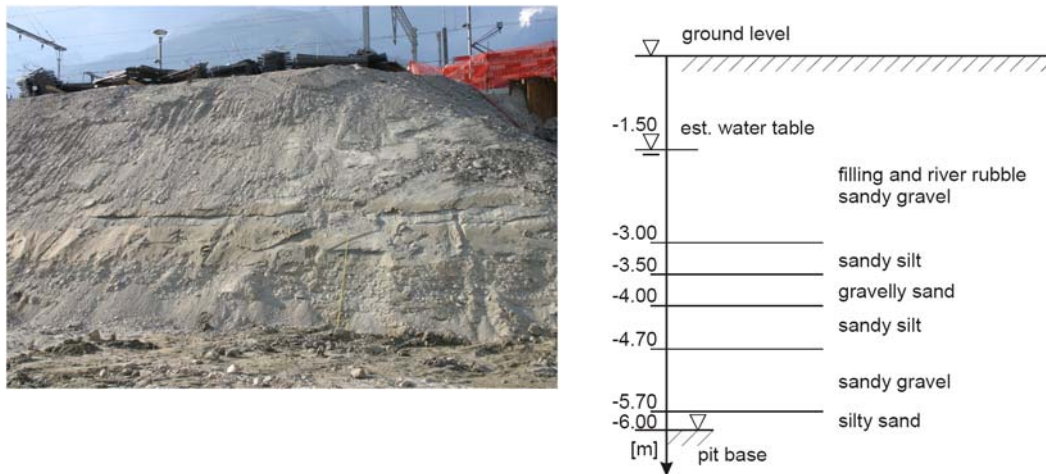


Figure 2: Soil profile taken from a slope at the train station of Visp.

In addition to the borehole log, which visualizes the results easily, meta data for each borehole is available. An example for this meta data is given in Figure 4, while attention should be given to the quality of the data, which is also included.

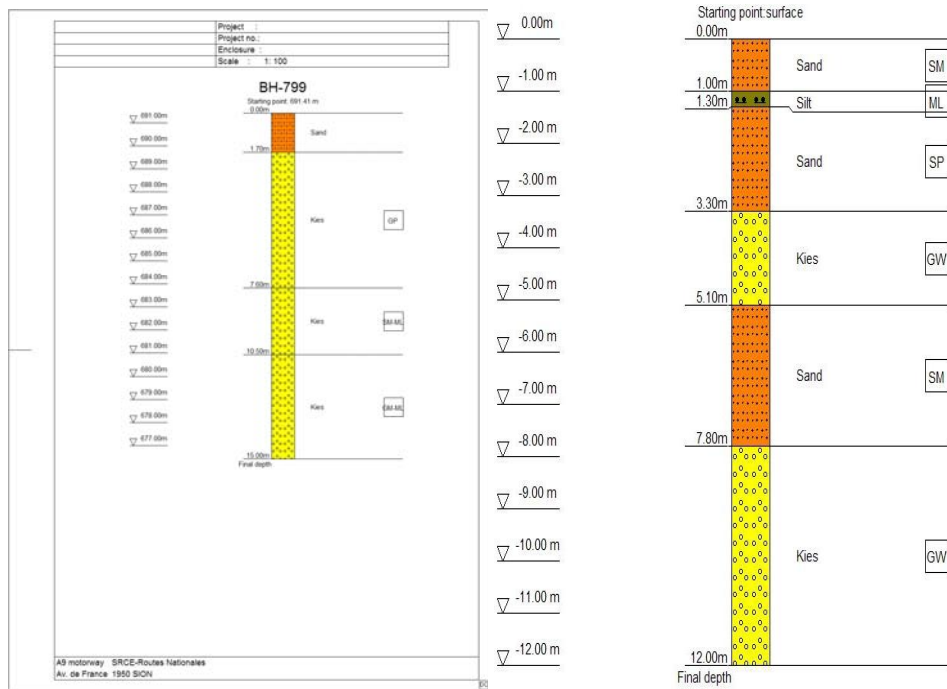
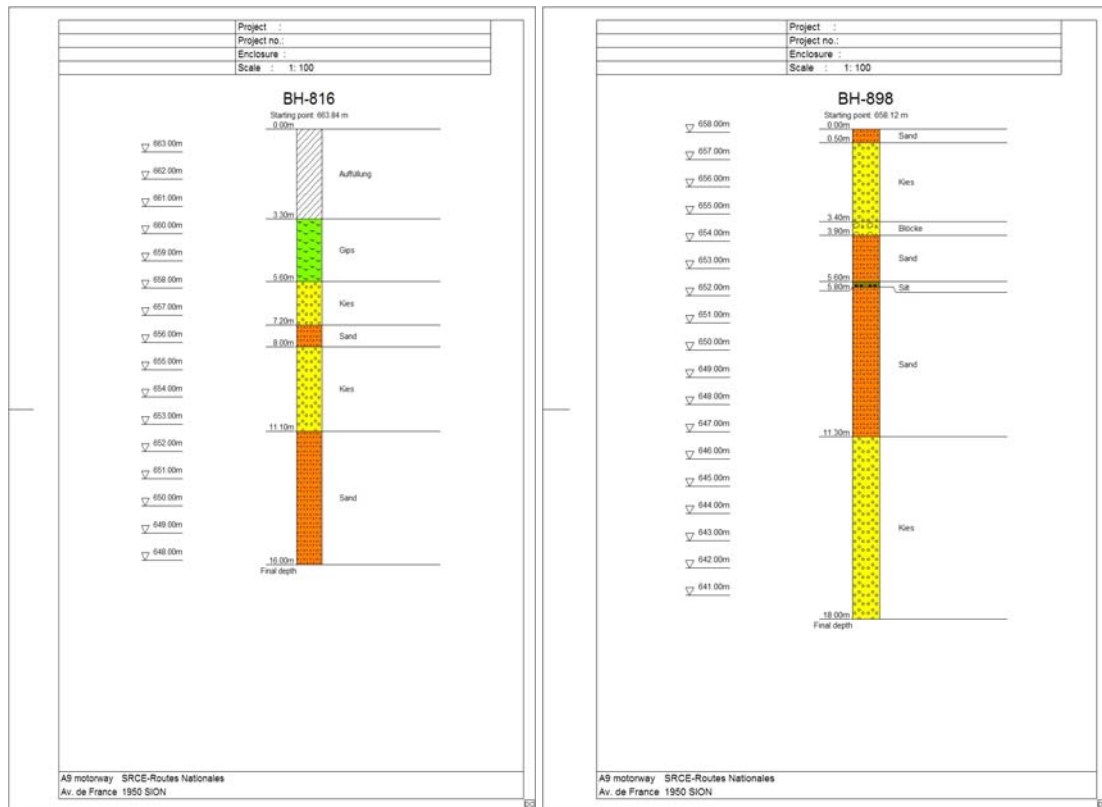


Figure 3: Different soil profiles in the area of Visp taken from the data base.

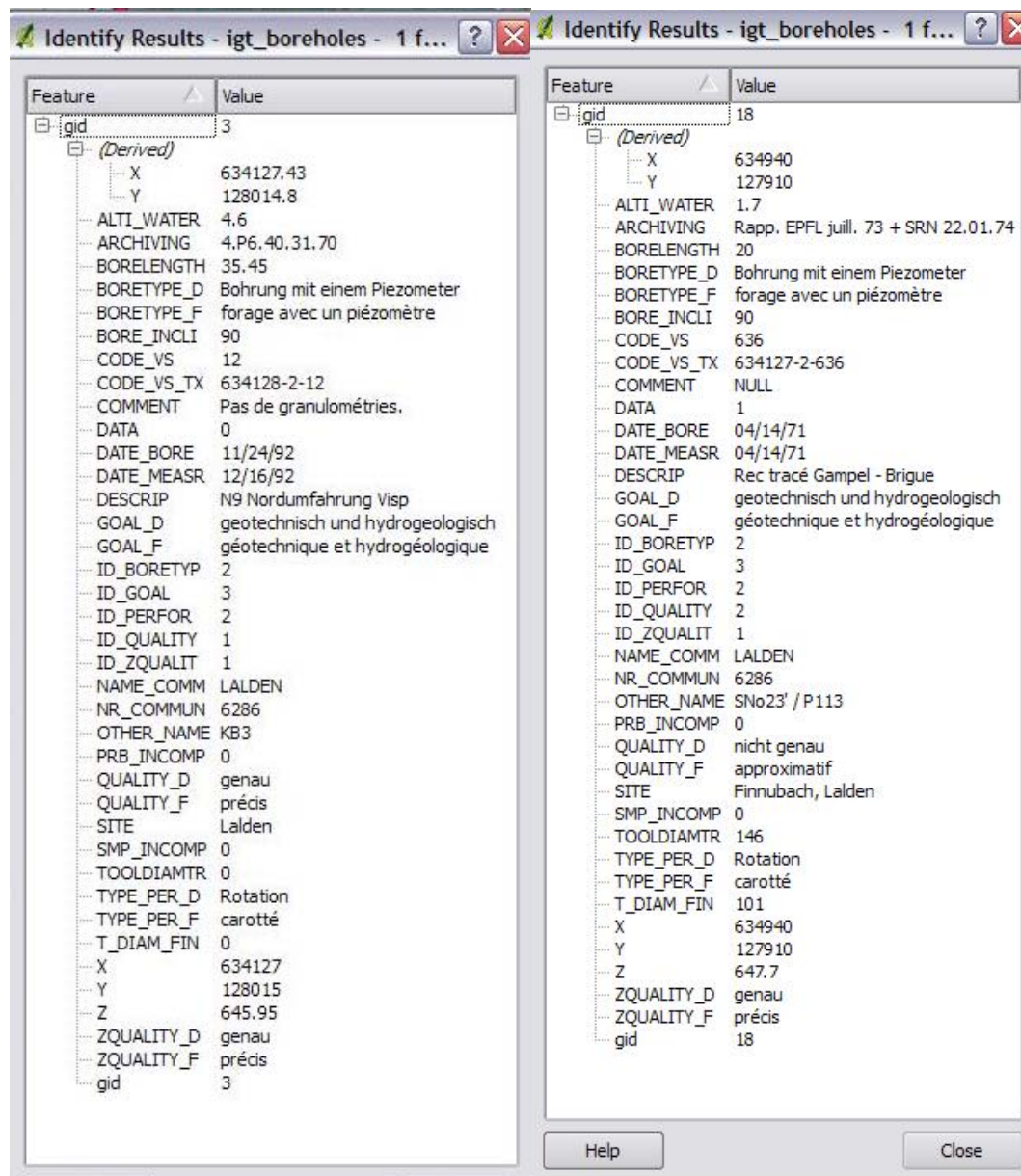


Figure 4: Examples of meta data for the bore holes in the data base.

4. SUMMARY AND OUTLOOK

Existing data has been summarized and incorporated in the COGEAR data base (Deliverable 3a.2.1.2). It is intended to increase the available data by using further information from different projects, site investigations conducted by local companies and the results of the planned borings conducted in the frame of this project .