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BOREHOLE ARCHIVE BOTSWANA

Botswana faces two major environmental problems: drought and desertification. Three quarters of the country's human & animal populations depend on groundwater. Fugro used GeoDin to create a centralised national borehole archive, as a prerequisite for planned groundwater reconnaissance projects.

GEODIN DATABASE

The GeoDin database contained all digital and analogue information that was currently available in 2001. Existing topographical maps were at a scale of 1:250,000. In the new GeoDin database 22 projects were created corresponding to 1:50,000 sheets corresponding to the reconnaissance areas for managing the many tens of thousands of boreholes. Analytical routines were programmed to incorporate new statistical methods of interpretation & presentation. Standard abbreviations for geological data input were defined and assigned to individual ISO 710 fill patterns.

CUSTOMISATION

Guidelines from the Department of Water Affairs and WHO-List comparisons were integrated in graphical templates for borehole reporting. Documentation was prepared in A4 and A3 formats using GeoDin Graph. An additional feature was the creation of customised templates for use with the GeoDin Extension for ESRI® ArcView™. This allowed end-users to view lithological and well-design data in ArcView™. Cross-sections created in GeoDin were integrated by using a dynamic database link between GeoDin and ArcView™.

Botswana is a landlocked country in Southern Africa.

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KNOWLEDGE TRANSFER

Training workshops for instructing professional and technical staff of the Department of Geological Survey (DGS) were held in Lobatse and in the offices of major drilling contractors in the capital Gaborone. These courses were very comprehensive, lasting two weeks and covered data collection, interpretation, presentation, technical installation procedures & administration. Specialist topics were also covered such as writing standard SQL database queries for user searches in the digital borehole archive. The courses were repeated annually until 2003. To supplement them a manual describing all main aspects of database system was created. This was distributed as a hard copy and in digital format (PDF) to act as a long term reference for the DGS personnel.

TECHNICAL DETAILS

The recommended system requirements are PCs with Windows operating system from Windows 10 (64-bit) with 4 GB RAM and a display resolution of 1920 x 1080 px. GeoDin may also be run from a Windows Server 2016 or higher as well as Citrix. Previous Windows operating systems and RAM configurations may work, but these are not supported. When working with client/server databases the appropriate database drivers must also be installed.

GeoDin can be used as a stand-alone program or integrated in a multi-user network. Integrated contextual help is provided in English and German.

GeoDin is designed, programmed and distributed exclusively by Fugro. Visit **info.geodin.com** or **geodin.com** for further information.

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