C CHART

Piper

Custom-Build - Collins

Ion Balance
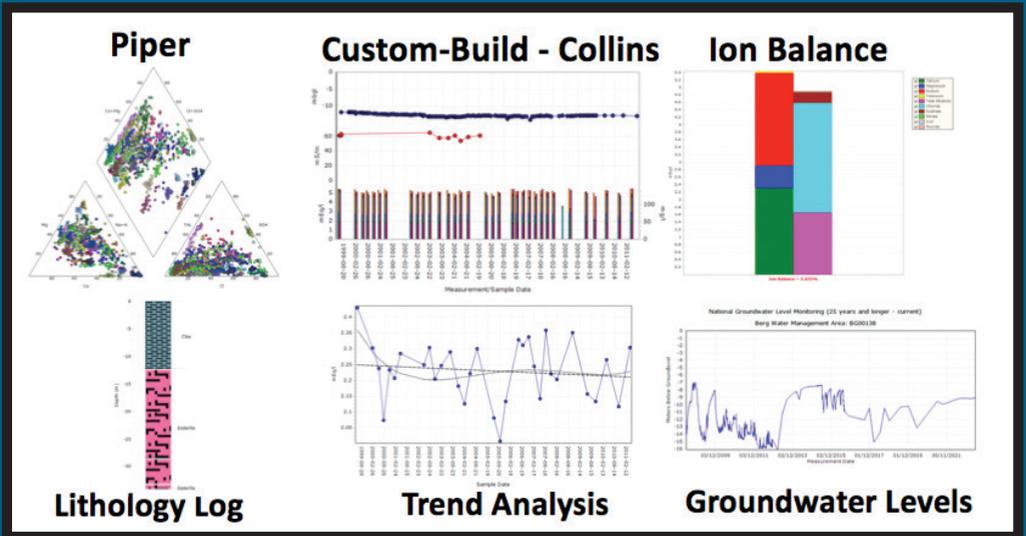
Lithology Log

Trend Analysis

Groundwater Levels

The Department of Water and Sanitation is responsible for Groundwater Information in South Africa. This includes the collection and distribution of all groundwater related data and information products. Adequate groundwater information is paramount, particularly in a dry country such as the Republic of South Africa.

To be able to support strategic development objectives, it is important to analyse and assess the complete hydrogeological cycle and hydrochemical trends in an integrated fashion with collaboration between groundwater, surface water, and meteorological data in a single snapshot or dashboard solution like **CHART**.
The prominent features of **CHART** are depicted in this pamphlet.

water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

2030
NDP

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Rainfall time series chart (under development)

What is CHART?

CHART is a web enabled, integrated, hydrogeological analysis and reporting solution that aims to assist hydrogeologists and hydrogeochemists in decision-making during analysis and assessment of hydrogeological and hydrogeochemical data.

Why CHART?

The Department has a legal obligation to ensure that water resources (including groundwater) are protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner.

The **National Water Act (NWA) (Act No 36 of 1998), Chapter 14 Part 2** requires the establishment of national monitoring and information systems because the availability of information about water resources is regarded as critical to the main purpose of the NWA. Section 139.2 (c) refers specifically to a national groundwater information system, which translate to the National Groundwater Information Systems (NGIS) Portfolio.

Within the NGIS Portfolio, **CHART** is a solution to analyse and interpret groundwater, surface water, meteorological data and present information for effective groundwater monitoring and decision making.

Re-design of CHART

Due to browser compatibility changes, **CHART** is currently under re-design and some of the functionalities mentioned in this pamphlet are not available.

What are the benefits of CHART?

- Accessible 24 hours a day
- No license fees
- User-defined data sets made available on request (under development)
- Instant plotting of standard and custom-build charts (under development)
- Accessible data:
  - Groundwater features (from National Groundwater Archive (NGA))
  - Water quality (from Water Management System (WMS))
  - Surface and groundwater levels, rainfall measurements (from HYDSTRA)

What functionalities are currently available?

- Users can export chart images (under development)
- Users can export displayed time series data
- Plotting various charts (under development)
- Microsoft® Windows and Outlook® style data viewing
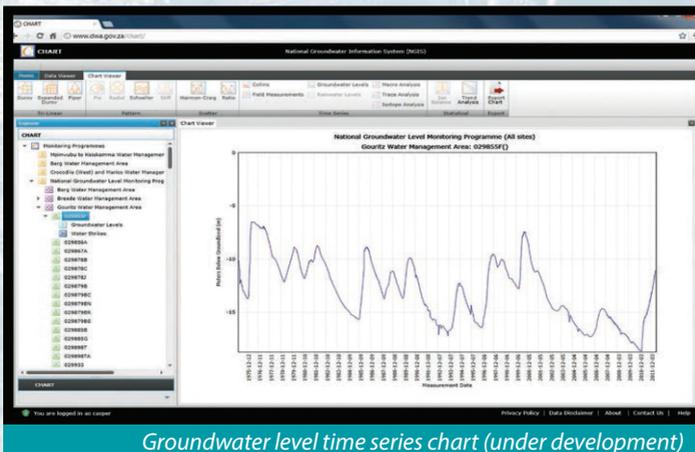
Groundwater level time series chart (under development)

What charts are currently under development?

Chart Type	Chart Name	Data Plotted
Tri-Linear	Durov	Water quality
	Expanded Durov	Water quality
	Piper	Water quality
Pattern	Pie	Water quality
	Radial	Water quality
	Schoeller	Water quality
	Stiff	Water quality
Scatter	Harmon-Craig	Water quality
	Ratio	Water quality
	Collins	Water quality
	Field Measurements	Water quality
	Groundwater Levels	Groundwater measurements
	Rainfall Levels	Rainfall measurements
	Macro Analysis	Water quality
	Trace Analysis	Water quality
	Isotope Analysis	Water quality
Statistical	Ion Balance	Water quality
	Trend Analysis	Water quality
Logs	Hydrogeological Log	Lithology, Groundwater levels, Water strikes

What future functionalities can be expected?

- Search functionality
- Spatial viewer
- User will design own Programmes and Networks

How to get hold of us and register, as an user?
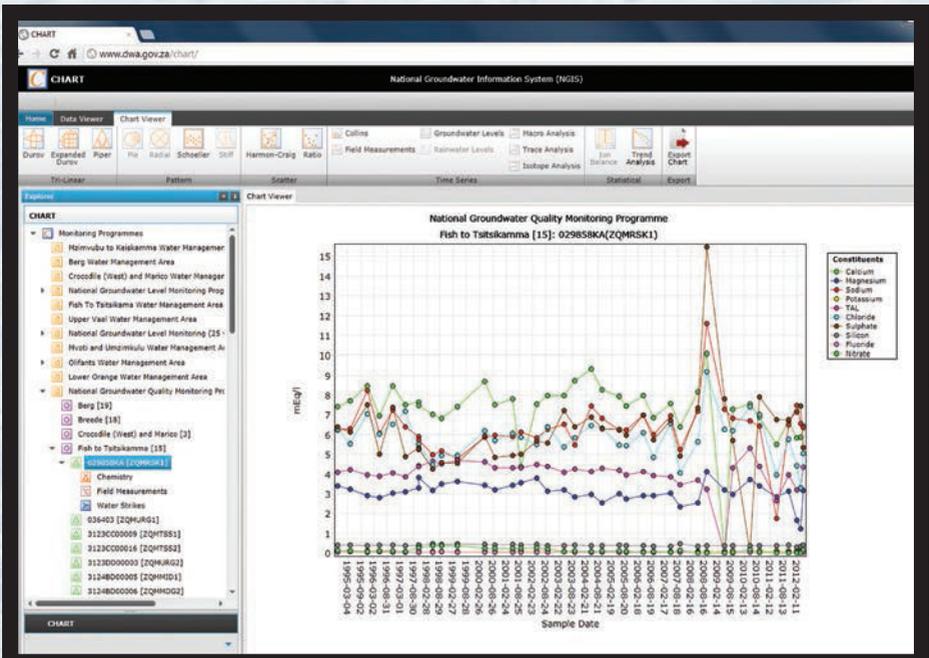
To register, go to: *https://www.dws.gov.za/chart/Default.aspx*

Enquiries: ngaur@dws.gov.za

Other related links:

Groundwater Website: *https://www.dws.gov.za/Groundwater/Default.aspx*
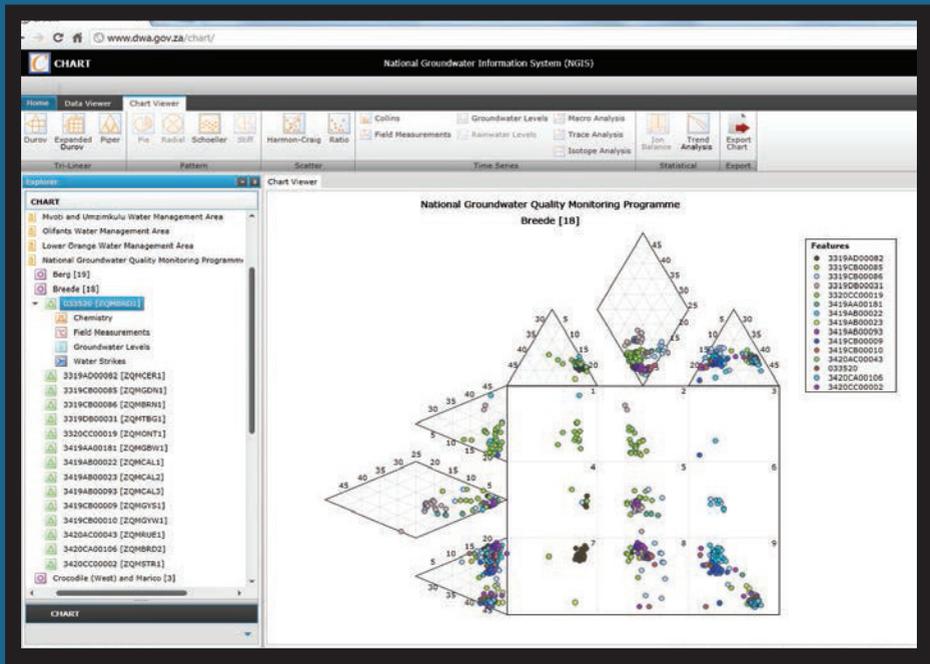
Expanded Durov chart (under development)

Macro analysis time series chart (under development)

Data viewer

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