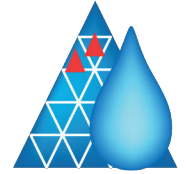


AQUACHEM

AquaChem is a groundwater software package ideally suited for projects requiring management, analysis, and reporting of water quality data.



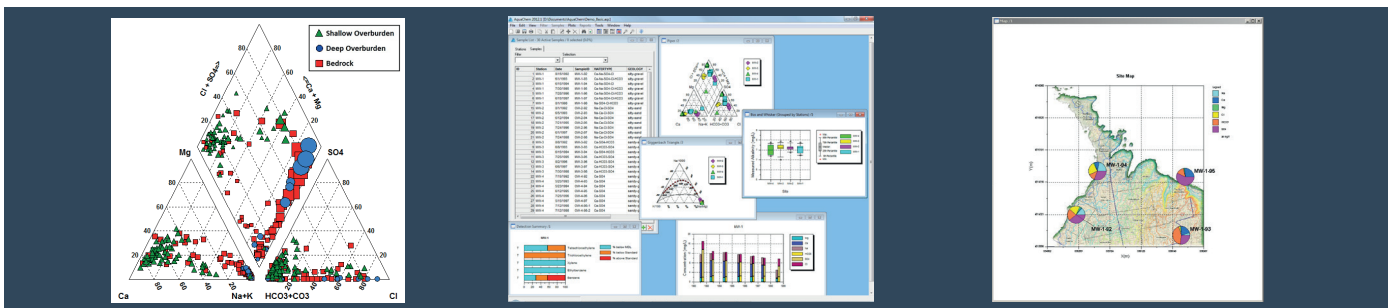
Data Management, QAQC & Analysis

- **Fully Customizable** : Use a customizable database of physical and chemical parameters to allow data imports in multiple formats. Formats include samples as rows, samples as columns, one analyzed value per row, and more.
- **Reliable Insight** : Check the accuracy of your water sample analysis, with various automatic QA/QC checks including Duplicate, Outlier and Holding Time Analysis, Method Detection Limit, Reliability Checks and Total/Dissolved Comparison.
- **Water Quality Standards** : Use any of ten provided water quality standards (or import your own) to check samples for exceedances on the fly and generate exceedance reports against one or more standards.
- **Versatile Calculations** : On-the-fly calculations including water type, ion balance, sum of cation/anions, TDS, SAR, Hardness, Scaling indices, and more.

Interactive GeoChemical Plots

AquaChem allows you to create multiple, interactive plots for the same dataset and view these plots side-by-side. When you click on a data point on a plot, its corresponding sample appears highlighted in the sample list. Plots include:

- Correlation plots : Scatter, Ludwig-Langelier, Wilcox, Depth Profile.
- Summary plots : Box and Whisker, Frequency Histogram, Quantile, Detection Summary, Meteoric Water Line, and Stacked Bars.
- Multiple parameter plots : Piper, Durov, Ternary, Schoeller.
- Time-serie plots & Probability plots.
- Geothermometer and Giggenbach plot.
- Single sample plots : Radial, Stiff, and Pie.
- Thematic Map plots : Bubble, Pie, Radial and Stiff plots at sample locations.



Statistics & Advanced GeoChemical Modeling

- **Trend Analysis** : Perform trend analysis using the following : Mann Kendall, Seasonal Mann Kendall, Sen's Test, Linear Regression, Spearman's Rank Correlation. Perform outlier tests including: Extreme value test, discordance test, Rosner test, and Walsh test.
- **Automatic Reporting** : Run automatic summary statistics report including : min, max, range, interquartile range, arithmetic mean, standard deviation, non parametric quantile, confidence interval, skewness, kurtosis, and more.
- **Seamless Integration** : AquaChem links seamlessly with the popular geochemical modeling program, PHREEQC, for calculating equilibrium concentrations of chemical species in solution and saturation indices of solid phases in equilibrium with a solution. Use your AquaChem samples as input solutions for the USGS program PHREEQCI or PHREEQC for Windows to perform advanced simulations.