

Analyzing Groundwater Quality Data and Contaminant Plume Migration Using GWSdat: GroundWater Spatiotemporal Data Analysis Tool

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What is it?

- A user friendly, free and open source, decision support tool for the analysis and reporting of groundwater monitoring data
- Software is an Microsoft Excel Add-In that implements open source (freeware) statistics “R”
- Groundwater concentration data reported in Excel are analyzed over time and space with a simple “click-of-the-mouse”

Why Use it?

- Improved data transparency which helps design and optimize groundwater monitoring or remediation projects
- Early identification of new releases, migration pathways, need for corrective action, and stable/declining concentration trends that improve risk-based and remedial decision making
- Clarity on the relations between dissolved groundwater concentrations, LNAPL thickness, and groundwater elevation
- Rapid interpretation of complex data from large groundwater monitoring networks (e.g., refineries, terminals)
- Facilitated reporting and graphics generation

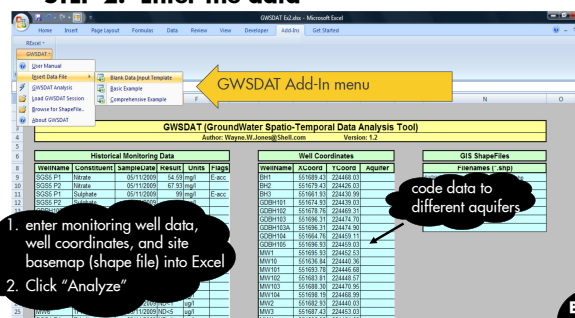
How it Works:

STEP 1: Install the software

1. Download R and GWSdat (both free)
2. Run GWSdat as Excel Add-In

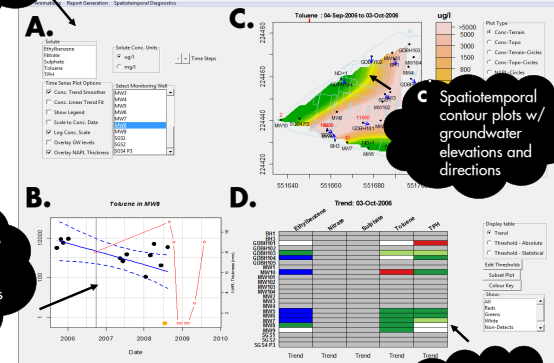


STEP 2: Enter the data



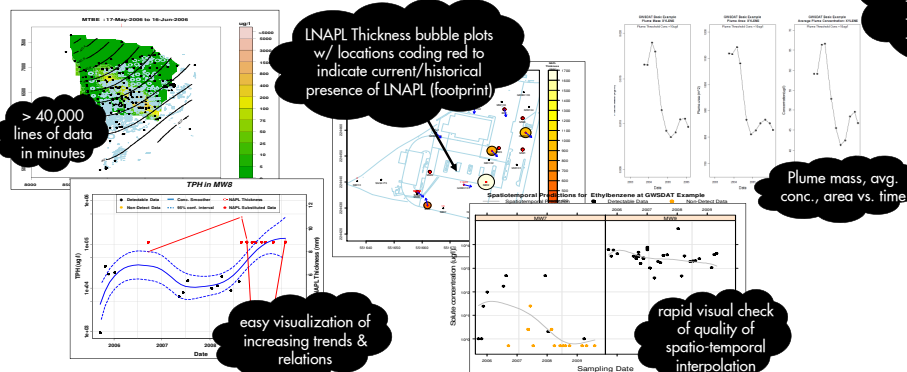
A. Analyze, units and time-series plot options

STEP 3: Analyze the data



All produced at the “click of the mouse”

STEP 4: Export the figures (to .pptx, .xlsx, or HTML)



Where to find it:

API:

<http://www.api.org/GWSDAT>

CL:AIRE:

<https://www.claire.co.uk/projects-and-initiatives/gwsdat>

University of Glasgow (on-line beta version):

<https://shiny.maths-stats.gla.ac.uk/gwsdat/GWSDAT/>