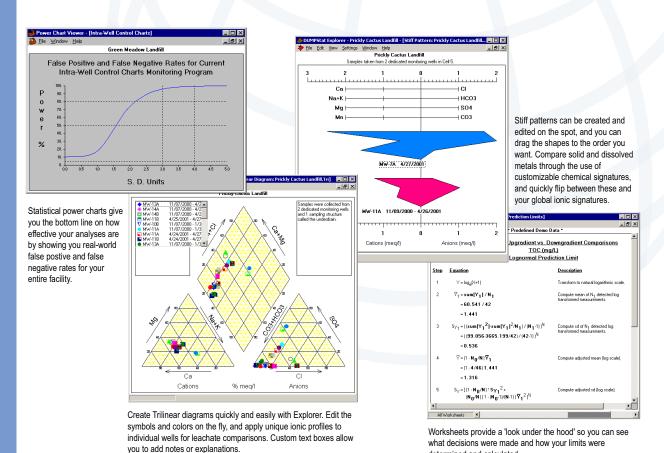
# CARStat DUMPStat Explorer







Wield the power of statistics with the control of intuitive diagrams for a complete understanding of your environmental data



#### **Overview**

DUMPStat, CARStat, and DUMPStat Explorer are powerful, easy-to-use software programs for environmental statistics and hydrogeochemical investigation. They import, store, and share data across the entire suite and generate rigorous statistical analyses and explorative diagrams for groundwater, surface water, and soil sampling data.

DUMPStat delivers powerful statistics tailored to detection monitoring data analysis and management at landfills and industrial facilities. CARStat extends DUMPStat's capabilities with statistics specific to compliance, assessment, and remediation at industrial plants, disposal facilities, brownfield sites and other installations requiring detailed investigation. DUMPStat Explorer provides hydrogeochemical investigative tools including Stiff Patterns, Trilinear Diagrams, Multi-Line Time Series, XY scatter plots and more; all with customizable configurations, and unparalleled live interactivity.

CARStat and DUMPStat are based on the work of Dr. Robert D. Gibbons, author of Statistical Methods for Groundwater Monitoring (1994), and Statistical Methods for Detection and Quantification of Environmental Contamination (2001), both published by Wiley. The methods used by both programs are compliant with USEPA Subtitle C and D regulations and all USEPA and ASTM Standard D6312-98 guidance documents. DUMPStat Explorer was developed in cooperation with experienced hydrologists to deal with 'real world' scenarios by providing industry-standard views and analyses. DSI's products are used by corporations, consultants, municipalities, and government regulators who need rigorous and effective statistics in groundwater and soil sampling.

determined and calculated.



DSI specializes in software for environmental statistics and hydrogeochemical exploration.

# What our customers say...



With DUMPStat Explorer, our hydrogeologists can evaluate volumes of geochemical information in a fraction of the time necessary with other software. Its ability to provide real-time analyses makes it a significant cost-saving product for our facilities.

Mark Verwiel
Director,
Groundwater Protection Program
WASTE MANAGEMENT INC.

DUMPStat is powerful, reliable, and intelligently designed. It is my preferred software for statistical evaluation of groundwater monitoring data.

### Will Neal, Principal GROUNDWORKS CONSULTING

CARStat is a highly sophisticated statistical program that is surprisingly easy to use. It provides site managers, scientists, and engineers with the most technically sound approach to assessment and corrective action monitoring available today.

Raymond Kapp, Program Manager EMCON/THE IT GROUP



Constituent Unit	orical Downgrad that Failed t are in	he Current Statistic	tuent-Well Combinatio	ns		
Constituent Unit	that Failed t are in	he Current Statistic		ns		
		Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode				
		Date	Result	Pred. Limit		
Bicarbonate MG/	L JHK-1	02/01/1995	525.0000 *	455.8378		
Bicarbonate MG/	L JHK-1	06/13/1995	545.0000 *	455.8378		
Chloride MG/	L MW-2	11/09/1987	820.0000	993.0000		
Chloride MG/	L MW-2	03/29/1988	433.0000	993.0000		
Chloride MG/	L MW-2	06/29/1988	440.0000	993.0000		
Chloride MG/I	L MW-2	10/05/1988	381.0000	993.0000		
Chloride MG/	L MW-2	04/20/1989	2000.0000 *	993.0000		
Chloride MG/I	L MW-2	08/24/1989	900.0000	993.0000		
Chloride MG/I	L MW-2	12/21/1989	0.0000	993.0000		
Chloride MG/	L MW-2	03/15/1990	100.0000	993.0000		
Chloride MG/	L MW-2	07/30/1990	80.0000	993.0000		
Chloride MG/	L MW-2	02/07/1991	380.0000	993,0000		
Chloride MG/	L MW-2	04/04/1991	470.0000	993,0000		

Detailed tables show detection frequencies, means, standard deviations, distributional form, calculated limits, and more. Our flexible printing options allow you to control the presentation of your results.

#### **Features & Benefits**

#### Integrated database system

Data is easily managed between installations and programs with the integrated database systems in DUMPStat and CARStat. Site files can be easily transferred between licensed installations, and users of both programs together can simply use the same database simultaneously. Explorer can work directly with the data in either program or with its own independent database. Data importing is kept simple with WYSIWYG formatting and on-the-spot error checks. QA/QC changes can be incorporated by editing data records, and all data revisions are tracked with the edit log. Ranges of data can be exported, printed or deleted with selectable filters.

#### Optimal statistical settings-automatically

The most appropriate statistical treatment is automatically applied to the chosen analysis. Optimal configurations can be saved as Zones, to be reloaded and run again with a single mouse click. Zones allow quick and efficient work on sites with heterogeneous geology.

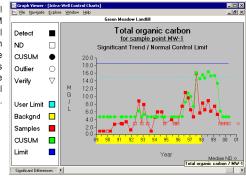
#### Total customization

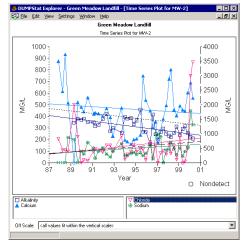
DUMPStat Explorer lets you choose which ions to use, and how they will appear on graphical output, plus you can save your settings for later use. Add your own descriptive text right on the graphs, and print in the font of your choice. Customize the graphical output with your choice of symbols, colors, titles, and layout, to present your data exactly as you wish. Choose how to handle nondetects, incorporate J values, and hand-pick samples from grouped date ranges—for the utmost control of your data.

## Statistical power charts for site-wide expected uncertainty rates

DUMPStat and CARStat generate statistical power charts for spatial, temporal, and regulatory comparisons; indicating site-wide false positive and false negative rates. These provide feedback on the effectiveness of the sampling regime and analysis configurations.

DUMPStat's intra-well Shewhart-CUSUM control charts are useful for indicating both gradual and immediate releases. Custom limits and headers may be defined for graphical display and printing.





Multi-line time series can display individual and/or group regression lines. Take complete control of your presentation with manual scaling to control the dynamic range of your data points.

#### Live editing-no need to reimport data

With Explorer, you can define analyses 'on-the-fly' by adding or changing wells and dates right on the graph—for direct, unencumbered investigation without having to re-import or re-sort your data. Output can also be saved and reopened for later editing. New data can later be included to update your views.

#### See all statistical calculations

Our Worksheet Viewer displays step-by-step calculations used in determining limits and shows which statistical decisions were made and why. Descriptive comments explain the equation used in each step.

#### Technical support you can count on

Enjoy our unrivaled friendly, personal technical support by phone or email. Our clients always get an answer within a day, and most times within the hour!

#### Try them today!

Download a free trial copy of CARStat, DUMPStat, or DUMPStat Explorer today, or contact us for a free demo CD. Work with your own data for 30 days to see how easy groundwater statistics and environmental data analysis can be!



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