

# AQTESTSS

**Model Uses** The AQTESTSS model allows users to analyze aquifer tests and associated 'slug' data through a series of spreadsheets.

**Major Categories** Hydrology and Water Use

Subject Knowledge Level  
Intermediate

**Minor Categories** Aquifers

Technical Difficulty Level  
Intermediate

**Model Type** Spreadsheet Model

Geographic in Nature?  
No

## **Abstract**

AQTESTSS utilizes several spreadsheets for the analysis of aquifer-test and slug-test data. Each spreadsheet incorporates analytical solution(s) of the partial differential equation for ground-water flow to a well for a specific type of condition or aquifer. The derivations of the analytical solutions were previously published. Thus, this report abbreviates the theoretical discussion, but includes practical information about each method and the important assumptions for the applications of each method. These spreadsheets were written in Microsoft Excel 9.0.

## **Future Developments**

Unknown

## **Model Limitations**

The distance-drawdown method is an equilibrium or steady-state method, thus storage cannot be estimated.

## **Model Features**

The model utilizes a series of spreadsheets for the purpose of providing analytical solutions of partial differential equations for ground-water flow.

## **Required Data Types**

Users input data from aquifer and slug-tests directly into a series of Excel spreadsheets.

## **Model Outputs**

AQTESTSS outputs values, graphs, tables and charts directly into associated Excel spreadsheets.

## **Hardware Requirements**

Standard Windows requirements.

## **Supported Platforms**

DOS  UNIX

Windows  Macintosh

## **Software Requirements**

Microsoft Excel

## **Cost, Licensing and Availability**

Model is offered free of charge from link provided.

## **Source**

USGS

## **Source (URL)**

<http://water.usgs.gov/pubs/of/ofr02197/>