

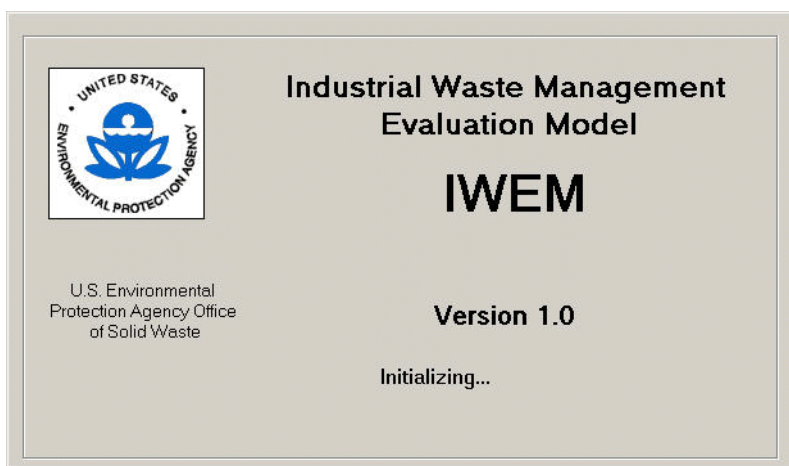
5.0 Running the IWEM Software

This section provides detailed instructions on how to run the IWEM software. Specifically, this section:

- Instructs you how to launch the IWEM software;
- Explains the key features of the IWEM software; and
- Guides you step-by-step through Tier 1 and Tier 2 evaluations.

5.1 How do I start the IWEM software?

To use the program for the first time, you can install the software from the *Guide* CD (or download it from EPA's website: <http://www.epa.gov/industrialwaste>) to your hard-drive. Section 4 gives detailed installation instructions.



After installation, you can launch the program by choosing |START|PROGRAMS| (at the lower left corner of the screen) and then choosing |IWEM| program group and the program |IWEM|. Alternatively, you can create a short-cut to the |IWEM| program and move it to your Windows desktop. In this case, the program can be launched by double-clicking the |IWEM| icon  on your desktop.

5.2 What are the key features of the IWEM software?

The IWEM software has a user-friendly interface which is designed to operate in accordance with MS Windows™ conventions. The first screen that you see after

launching the program is the Start-Up screen (shown above) which will appear only while the program is loading.

The first time you run the IWEM software, it displays five Introduction screens. After reading them once, you can skip these screens in the future by un-checking the box at the lower left of the introduction screens (see Section 5.3).

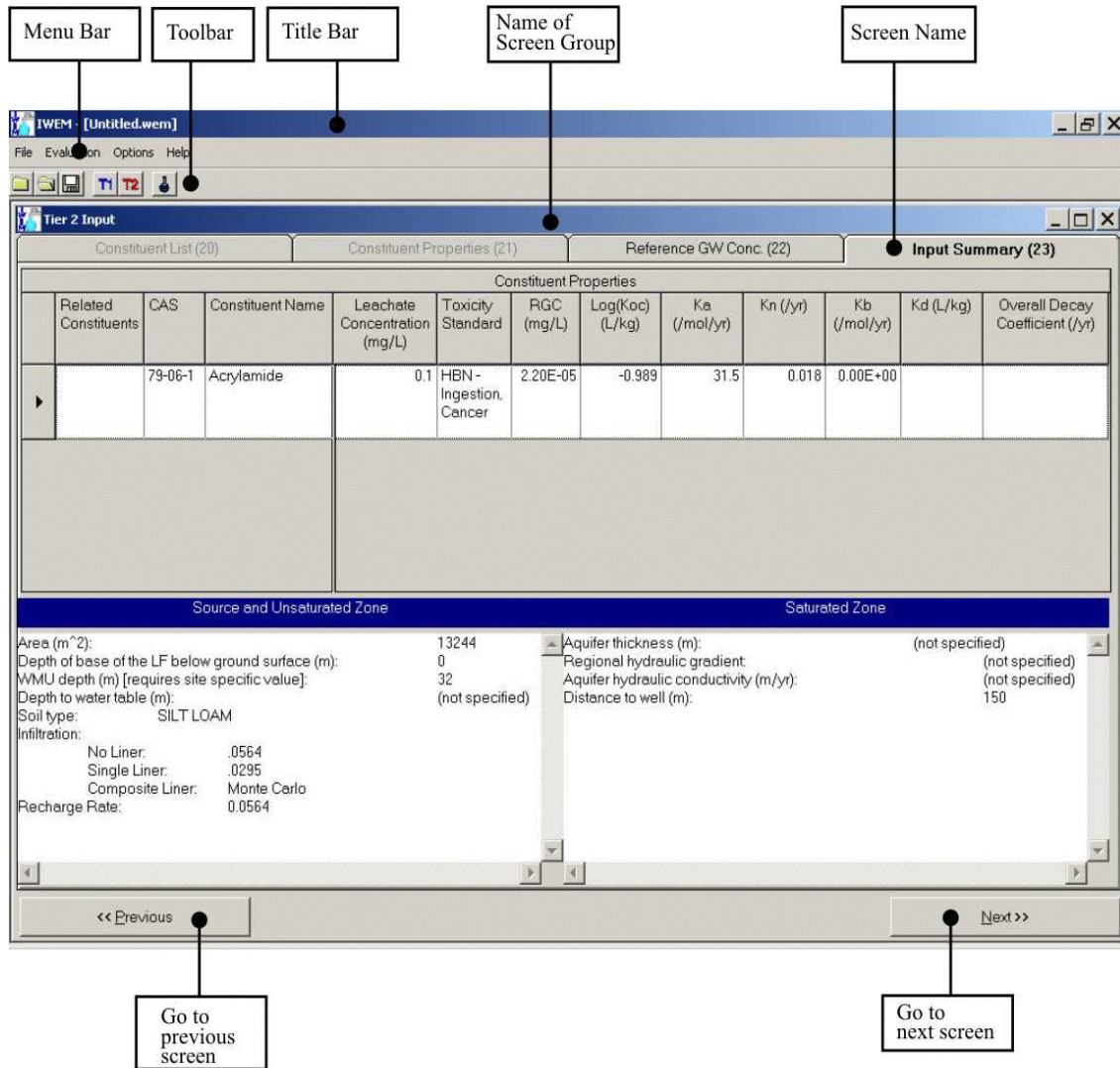


Figure 5.1 General IWEM Screen Features.

As shown in Figure 5.1, the IWEM software interface follows a common layout with the following features:

- **Menu Bar** allows you to perform common file operations;
- **Toolbar** also allows you to perform common operations efficiently;
- **Title Bar** at the top displays the software title and the name of the current IWEM project file;
- **Name of Screen Group** identifies the general topic addressed by the individual screens that comprise this group (e.g., Tier 2 input screen group);
- **Screen Name** more specifically identifies the type of information being requested or displayed in the screen;
- **|PREVIOUS|** button takes you to the previous screen; and
- **|NEXT|** button allows you to proceed to the next screen.

From the menu bar, you can select among the following menu items:

- **File:** performs general file operations, such as open and save;
- **Evaluation:** proceeds directly to either the Tier 1 Evaluation or the Tier 2 Evaluation;
- **Options:** enables or suppresses toolbar visibility; and
- **Help:** provides access to the following information: search IWEM online help; view IWEM introductory screens; browse constituent properties; view contact information for IWEM technical support; and view the IWEM About screen.

Using the toolbar is a quick way to perform common operations:



Clicking on this button begins a **|NEW EVALUATION|**;



Clicking on this button launches the **|OPEN FILE|** dialog box to select the previously saved evaluation file to be opened;



Clicking on this button launches either the **|SAVE AS|** or **|SAVE|** dialog box so that you can specify the filename and folder for your analysis;



Clicking on this button begins the |TIER 1 EVALUATION|;



Clicking on this button begins the |TIER 2 EVALUATION|; and



Clicking on this button opens the |CONSTITUENT PROPERTIES BROWSER| dialog box.

If you are unsure about the function of any of the toolbar buttons, you can display |TOOL TIPS| (which identifies the button's function) for each button by placing the mouse cursor on top of the button.

In this section of the *User's Guide*, we present detailed, step-by-step instructions for running the IWEM software. These instructions include screenshots for each of the screens and dialog boxes that you will see when performing a Tier 1 or Tier 2 analysis in IWEM. The screenshots presented in Section 5 have added annotations (in small boxes above and below the screenshot) to point out the important features on each screen. These annotations are each labeled with a letter (A, B, C, etc) and are then listed and explained sequentially in the text immediately following each screenshot.

5.2.1 What is the Constituent Properties Browser?

The Constituent Properties Browser, accessed from the Main Menu sequence |HELP| CONSTITUENT PROPERTIES| or by clicking on the flask toolbar button, displays the data in the constituent properties database that is distributed with IWEM (see Figure 5.2). You can select a constituent by Chemical Abstract Service Registry number (CAS number) or by name. The information displayed in the upper portion of the browser includes chemical and physical properties required for fate and transport modeling. RGC values, cancer slope factors (CSFs), and non-cancer reference doses and reference concentrations are given in the lower portion of the screen. For each property value in the database (except constituent type, carcinogenicity, and molecular weight), the |DATA SOURCE| field provides access to a complete bibliographic citation (see Figure 5.3).

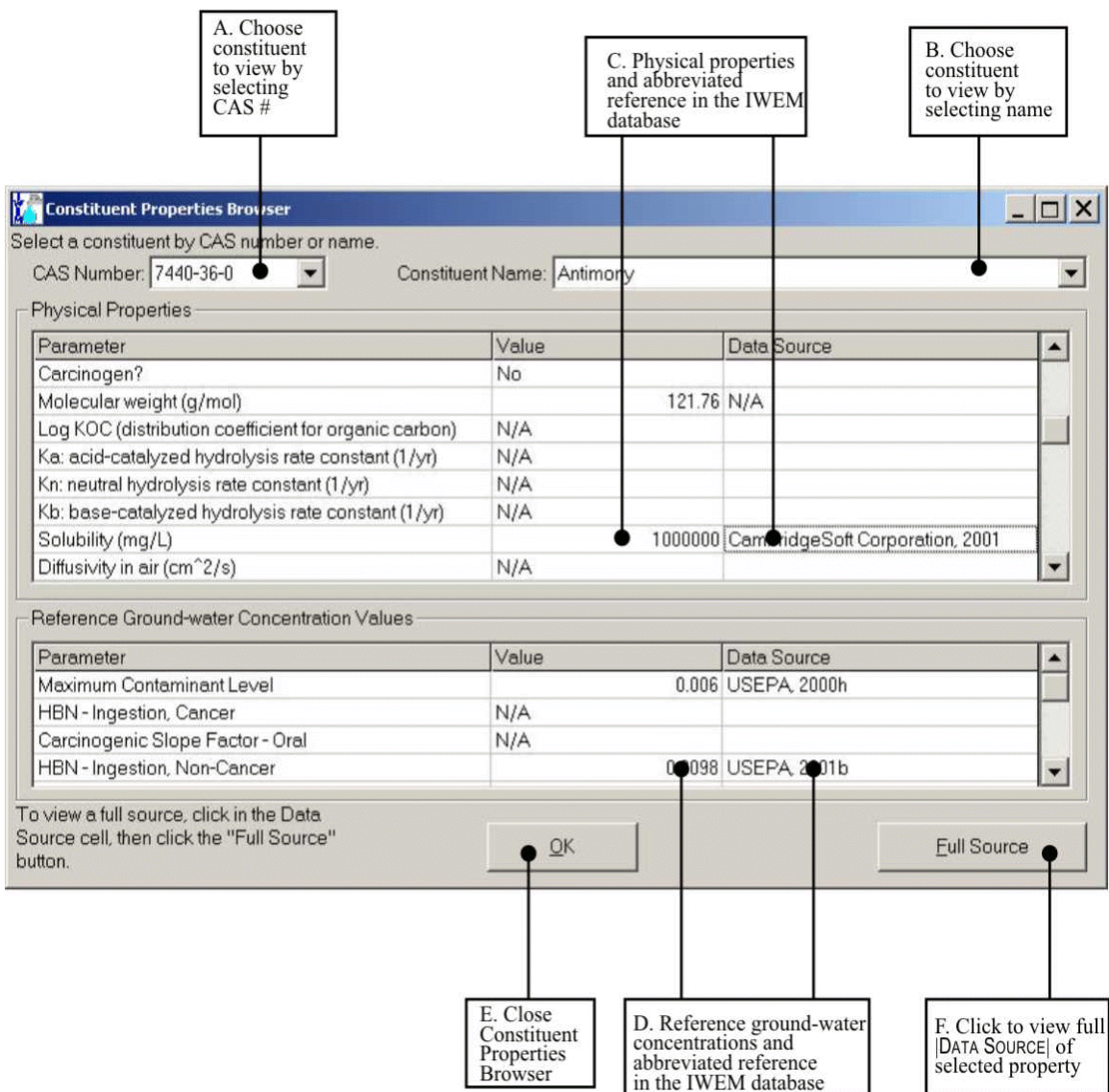


Figure 5.2 Constituent Properties Browser.

The features identified in Figure 5.2 are explained in more detail in the following paragraphs.

A. Choose Constituent to View by Selecting CAS Number

To select which constituent to view, use either of the two list boxes at the top of the screen. You can click on the drop-down list control  at the right edge of the **CAS NUMBER** listbox to display a drop-down list of all available waste constituents. Then use

the mouse or the |ARROW| keys on your keyboard to scroll through the list of constituents until the desired constituent is highlighted. You can also type in the leading digits of the CAS number for the constituent you would like to view. IWEM will then skip forward in the list to the first constituent whose CAS number starts with the entered digits, and you can then use the mouse or the |ARROW| keys on your keyboard to move to the desired constituent. Left click on the mouse or hit the |ENTER| key to make your selection.

B. Choose Constituent to View by Selecting Name

You can also select which constituent to view by using the |CONSTITUENT NAME| listbox on the right side of the screen. Click on the drop-down list control  at the right edge of the |CONSTITUENT NAME| listbox to display a drop-down list of all available waste constituents. Then use the mouse or the |ARROW| keys on the keyboard to scroll through the list of constituents until the desired constituent is highlighted. You can also type in the first letter of the name of the constituent that you would like to view. IWEM will then skip forward in the list to the first constituent whose name begins with the entered letter, and you can then use the mouse or the |ARROW| keys on your keyboard to move to the desired constituent. Left click on the mouse or hit the |ENTER| key to make your selection.

C. Physical Properties and Abbreviated Reference in the IWEM Database

For the selected waste constituent, the pertinent physical and chemical property values that are used in the IWEM analysis and their corresponding data sources are listed in the upper window on this screen.

D. Reference Ground-water Concentrations and Abbreviated Reference in the IWEM Database

For the selected waste constituent, the RGC input parameter values that are used in the IWEM analysis and their corresponding data sources are listed in the lower table on this screen.

E. Close Constituent Properties Browser

Click the |OK| button at the bottom of the screen to close this screen.

F. Click to View Full | DATA SOURCE | of Selected Property

You can view the complete bibliographic citation of a constituent property by selecting the corresponding entry under the | DATA SOURCE | heading and clicking on the | FULL SOURCE | button on the lower right-hand side of the screen. Doing so will cause a message box to appear on-screen, as is shown in Figure 5.3.

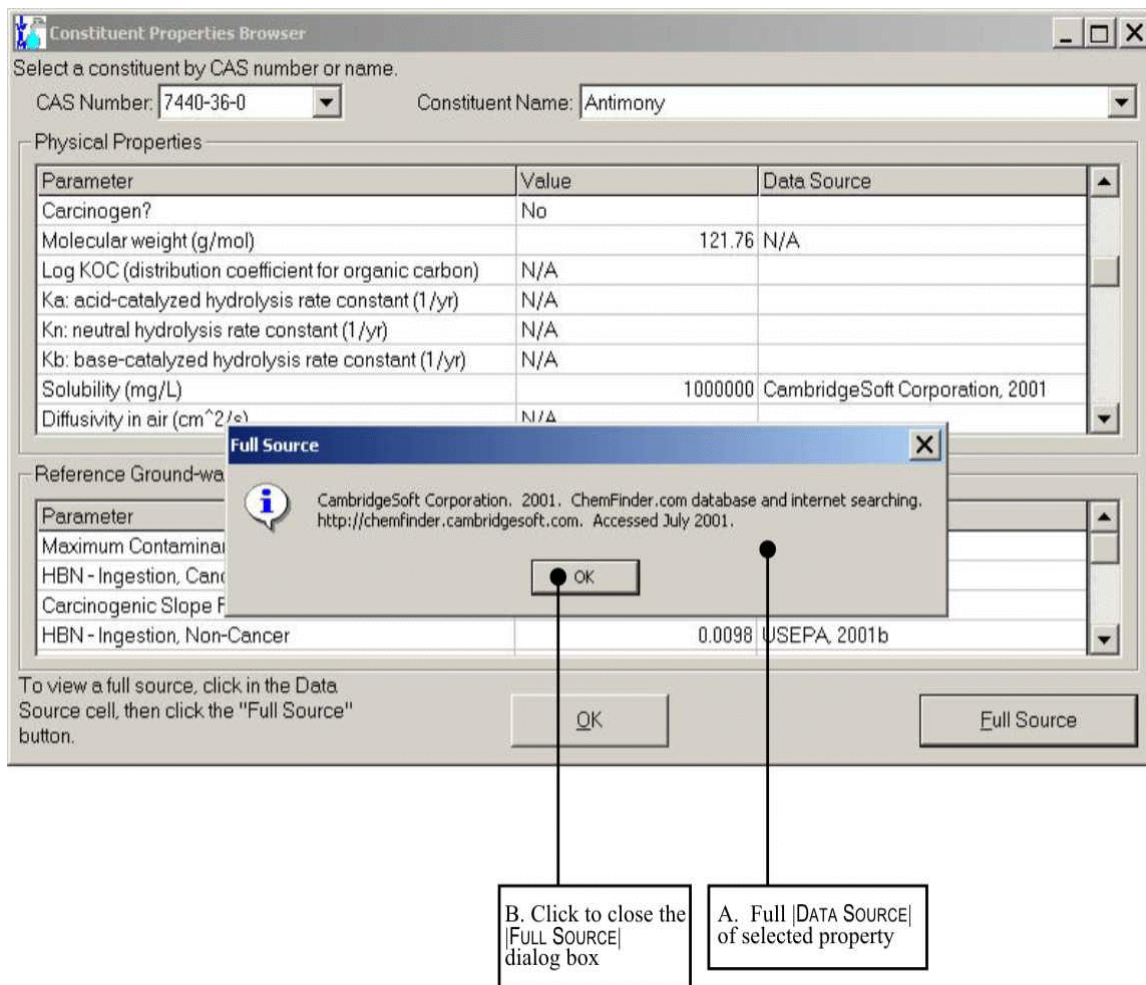


Figure 5.3 Constituent Properties Browser Full Source Dialog Box.

The features identified in Figure 5.3 are explained in more detail in the following paragraphs.

A. Full | DATA SOURCE | of Selected Property

The bibliographic citation of the selected property is displayed in the | FULL SOURCE | dialog box.

B. Click to Close the | FULL SOURCE | Dialog Box

Click the | OK | button to close the dialog box.

5.2.2 How Do I Navigate Through the IWEM Software?

The IWEM software is comprised of a series of screens containing controls for entering data and viewing results. This section describes in detail how to move from screen to screen and control to control, as well as how the various controls are used together to facilitate your use of the IWEM software. Although this guide assumes you will be using a mouse to navigate through the screens and features, you may also navigate using the keyboard exclusively.

Navigating with the keyboard involves the use of the following keys: the |TAB| key, the |BACK-TAB| key, the |ARROW| keys, the |ALT| key, and the |ENTER| key. The |TAB| key moves the cursor from one control to the next in a predefined order. The term cursor refers to either a vertical bar “|” that indicates the position of the next typed character, or the change in a control’s appearance from normal to a highlighted appearance, as presented below.



Normal



Highlighted

When a control is highlighted, it is considered actively awaiting input from the keyboard or mouse. The |BACK-TAB| key (press the |TAB| key while holding down the |SHIFT| key) moves the cursor in the reverse order. When the cursor is on a command button, press the |ENTER| key to “click” the button. Radio buttons always appear in a set of two or more options; when the cursor is on any radio button, press the |ARROW-UP| or |ARROW-DOWN| key to select a different radio button. The |TAB| key moves you off the radio button group. The |TAB|, |BACK-TAB|, and |ARROW| keys are also used to move from cell to cell in a data grid. A drop-down list displays the current choice of several possible choices; when the drop-

down list is active (highlighted), use the |ARROW-UP| or |ARROW-DOWN| keys to display the desired choice.

The |ALT| key is used in combination with other key strokes to access controls or menu items quickly through pre-defined “hot-keys” that correspond to underlined characters on a control or menu item. For example, the underlined “O” on the |OK| button above indicates that pressing and holding down the |ALT| key and then pressing the |O| key would have the same result as a mouse click on the button. Similarly, the main menu system is activated by pressing the |ALT| key; the first letter of each menu item is underlined and can be accessed in the manner just described.

5.2.2.1 Screens

Screens in IWEM appear as a single screen or as a group of screens with manila folder-like “tabs” along the top to differentiate between the individual screens. The Introductory screens (see Figures 5.9 through 5.13) are examples of individual screens that have |PREVIOUS| and/or |NEXT| command buttons along the bottom for navigating from screen to screen. The Tier 1 Input screen group (see Figure 5.14) consists of three screens where you select a WMU type, identify the constituents in your waste, and enter your leachate data. In addition to the navigational command buttons available on single screens, you can also move to adjacent screens by clicking on their corresponding “tab”.

5.2.2.2 Controls

The following controls make the IWEM software easy-to-use:

- Text boxes;
- Dialog boxes;
- List boxes;
- Radio Buttons;
- Data grids;
- Command buttons; and
- Drop-down lists.

Each of these controls is explained in more detail in this section. In general, a control is activated or selected by clicking on it with the mouse or by using the keyboard (e.g., using the |TAB| key or the hot-key).

Text Boxes

Text boxes are used to display or accept information. The screen shown in Figure 5.4, text boxes (box B) are used to accept the name or CAS number of a constituent. As you type characters or numbers into the text box, the list box cursor moves to the constituent in the list that best matches your input. The screen shown in Figure 5.5 uses text boxes to display data (box B) and to receive inputs (box E).

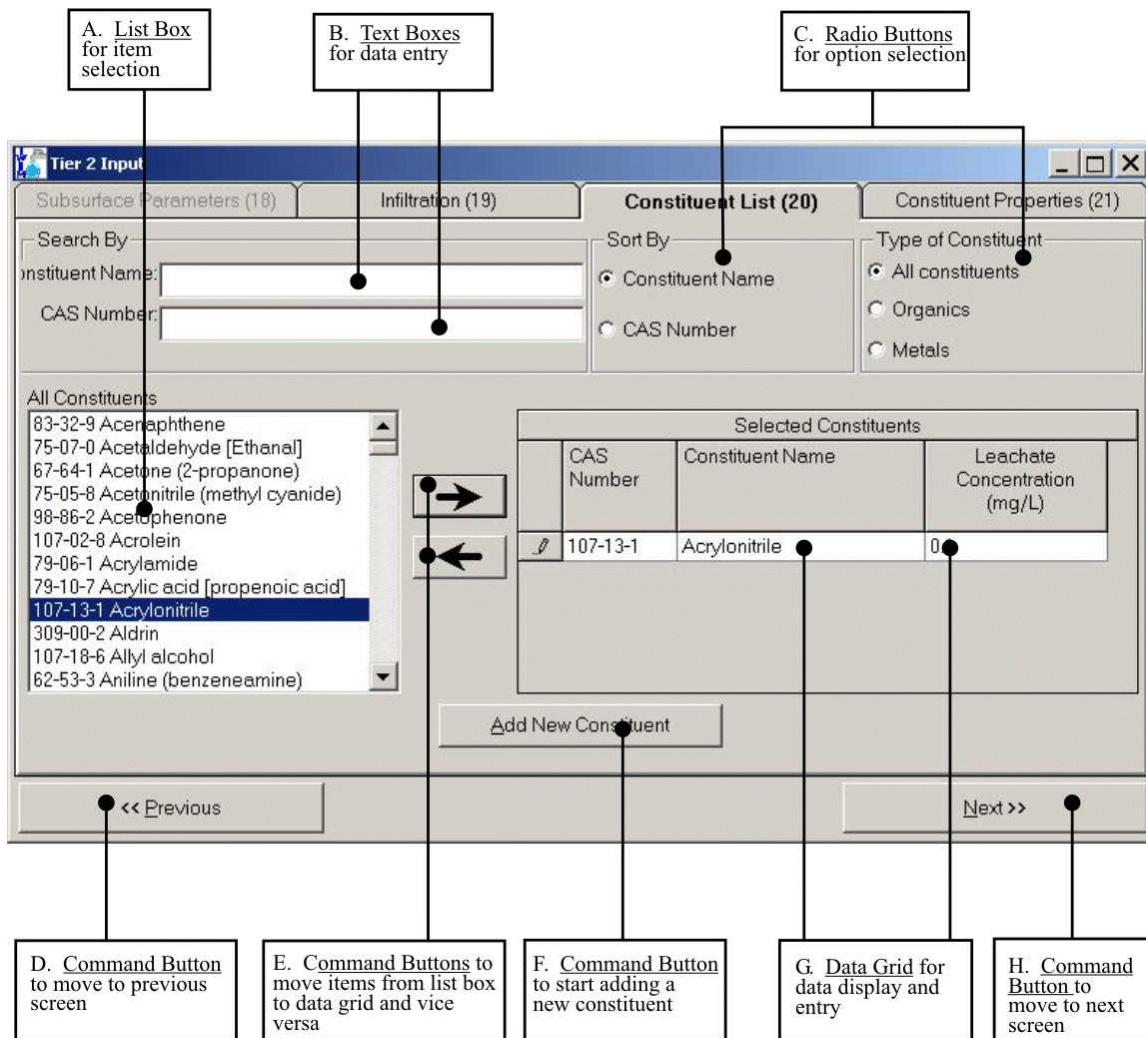


Figure 5.4 Example IWEM Screen Identifying Several Types of Controls.