

# POWER LOG

Version 8.0 Metric Tutorial



The Intelligent Geological Software Solution

Suite 314, 602 – 11<sup>th</sup> Avenue S.W.

Calgary, Alberta T2R-1J8

Phone: (403) 777-9454 Fax: (403) 777-9455

Website: [www.powerlogger.com](http://www.powerlogger.com) Email: [info@powerlogger.com](mailto:info@powerlogger.com)

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## Introduction

**Power\*Log™** (Petrographical Office Wellsite Evaluation and Reporting) is a chip and core logging management program that utilizes single-entry data capturing to produce geological striplogs. The geological data is entered into the system through the use of intuitive data entry forms to ensure standardization of data. This data is stored in an RDBMS (Relational Database Management System) to allow data manipulation using SQL access tools.

### **Power\*Log™ software consists of four (4) main parts:**

- 1.) A log editor module that allows you to change the striplogs to suit your needs and preferences.
- 2.) A data transfer module.
- 3.) Report printing modules.
- 4.) An on-line help system that is designed to familiarize you with the commands and functions available in **Power\*Log™** and lead you through many of the processes involved in creating welllogs.

### **A note about navigating through Power\*Log™ Reports:**

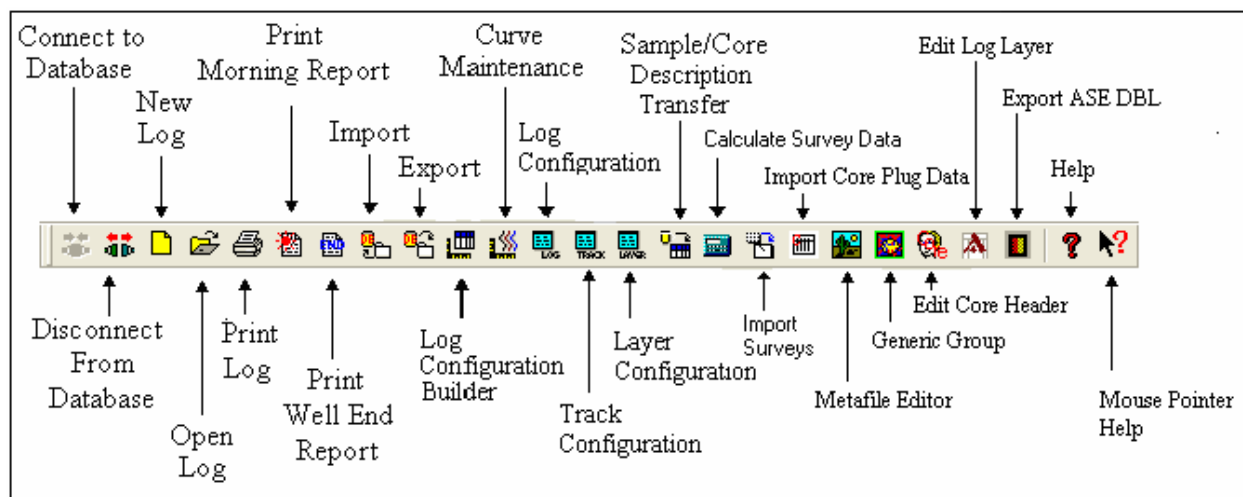
When you are entering information into data forms, you may move between boxes/fields by **pressing the Tab key** to go forward and **Shift +Tab keys** to move backwards. To exit forms that do not have an **Exit, OK, or Cancel** button, **press the Esc key** on the keyboard.

### **To access the On-line Help System in Power\*Log™:**

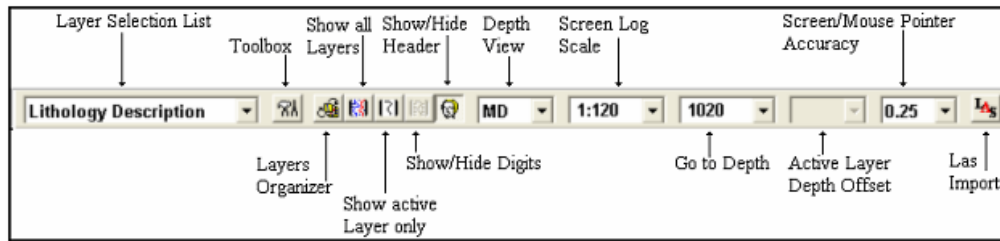
You can make use of the context sensitive help by **pressing the F1 key** when you are in a dialogue box. A pertinent help file will appear, opened to the topic relevant to the dialogue box you are in.

### **Below are some examples of common features within Power\*Log™:**

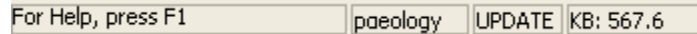
#### The Toolbar



**The Selection Bar...**



**The Status Bar...**

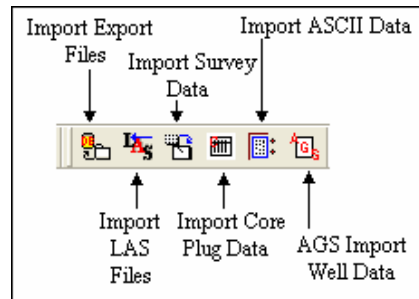


The **Status Bar** displays system status messages and any error message (associated with a field entry), in the far left corner. The KB elevation is displayed in the lower right corner of the **Status Bar**.

**Import Toolbar**

This toolbar is dock able and can be moved to different places on the screen.

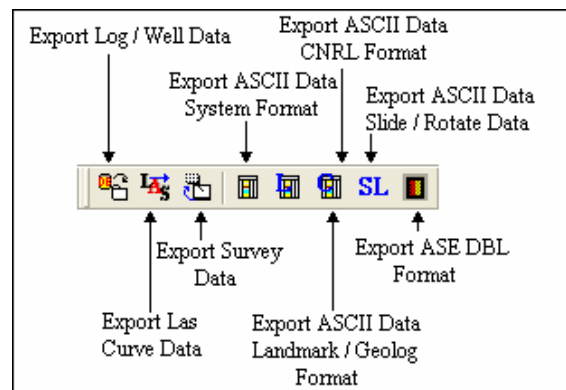
**The Power\*Log / Core & Curve™ Import Toolbar...**

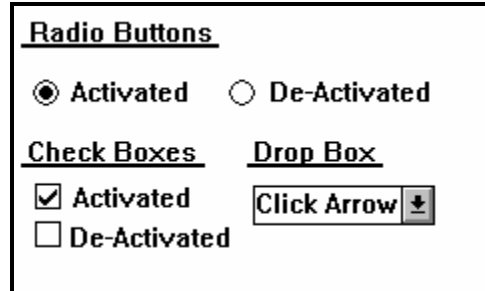


**Export Toolbar**

This toolbar is dock able and can be moved to different places on the screen.

**The Power\*Log / Core & Curve™ Export Toolbar...**





**The On-line Help is divided into four(4) main categories:**

**Commands** - Descriptions of each menu command within **Power\*Log™**.

**Toolbar** - Shortcuts to common commands are explained.

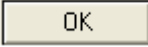
**Database Table Operations** - Commands/functions related to the Database Table are described.

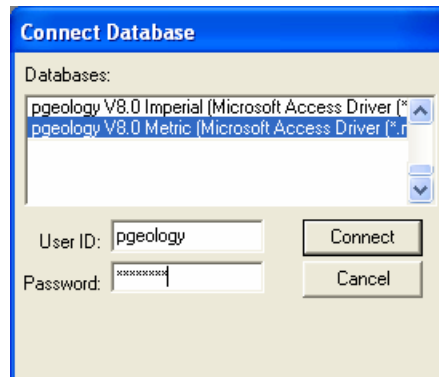
**Quick Reference Guide** - The portion of the **On-line Help System**, that quickly refers you to some of the more commonly performed tasks.


This tutorial will guide you through the process of creating and editing a new striplog (hereafter referred to simply as a log), with curves and interpreted lithology.

### Connecting to the Database



- 1.) **Double click** on the **Power\*Log V8.0 Icon**. Acknowledge the Security Information window by **clicking** on the  **button**. This will initiate the program and activate a **Connect Database** window.



- 2.) Highlight the **Pgeology V8.0 Metric (Microsoft Access Driver[\*...])** database by **clicking** on it once.
- 3.) Move your mouse pointer to the **User ID** field and **click**. This will activate a flashing cursor in the **User ID** field. **Type "pgeology"** in the **User ID** field. **Press the Tab** key on the keyboard to move to the **Password** field.
- 4.) **Type "pgeology"** in the **Password** field and then **click** on the  **button**. The program will now load various dictionaries and then activate an **Open Log** window.

### Creating a new Well / Log



The first step in creating a new log is to **click** on the **New Log button** on the **Toolbar** or to **select New** under **File** on the **Selection Bar**. This will open the **New Log** window on the next page.

This more than likely will appear after connecting to the Database without you have to do the above procedure if this was the first time you have activated Power\*Log.

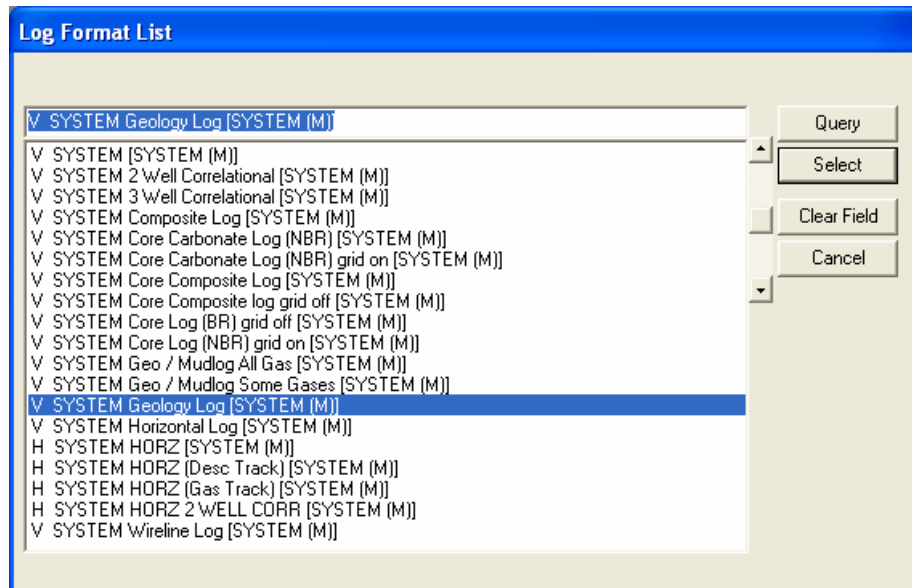
- 1.) The **Well/Log Name** field is where you enter the name of the well (no more than 50 characters long). Type **“Tutorial Well”** into the **Well / Log Name** field.
- 2.) Click on the **UWI / API:** button to activate the **UWI Format** window.

- 3.) You will be using the **DLS (Dominion Land Survey System)** format (for Alberta, Saskatchewan, Manitoba and some of BC). Enter the following information into the empty **DLS** fields and remember to **Tab** between fields.

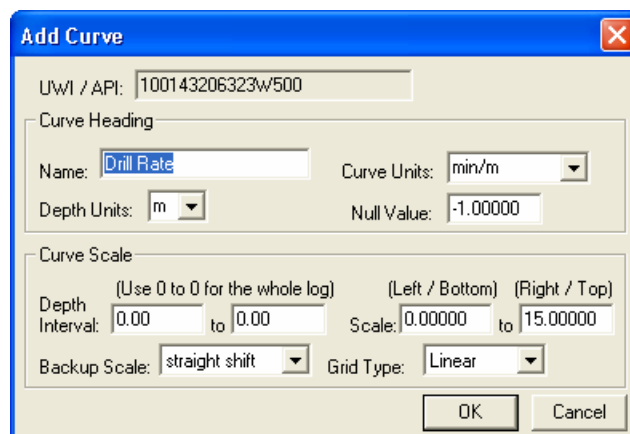
Loc. Ex.: **00**(two zeros) LSD: **14** Sec.: **32** Township: **063** Range: **23**  
 E/W: **W** Mer.: **5** O/A: **0** (zero) Event Sequence: **0** (zero)

- 4.) Click on the **OK** button when you have finished entering the **UWI**. An extended **UWI** is created by **Power\*Log™** from the many small fields that you just filled in.


- 5.) Click on the **Log Format...** button to activate the **Log Format List** window.



- 6.) Click on “**V SYSTEM Geology Log [SYSTEM (M)]**” to highlight it and then click on the **Select** button. You may also **double click** on “**V SYSTEM Geology Log [SYSTEM (M)]**.”
- 7.) Once you have been returned to the **New Log** window, **double click** in the **Log Start Depth** field. This will highlight the zero (**0**) and activate a flashing cursor. **Type 1190** in the **Log Start Depth** field.
- 8.) Once the information is entered, click on the **Create** button.
- 9.) This will initiate a **New Log**. During this process, the curves associated with the selected log format will be added. **Drill Rate** will be the first Add curve window.

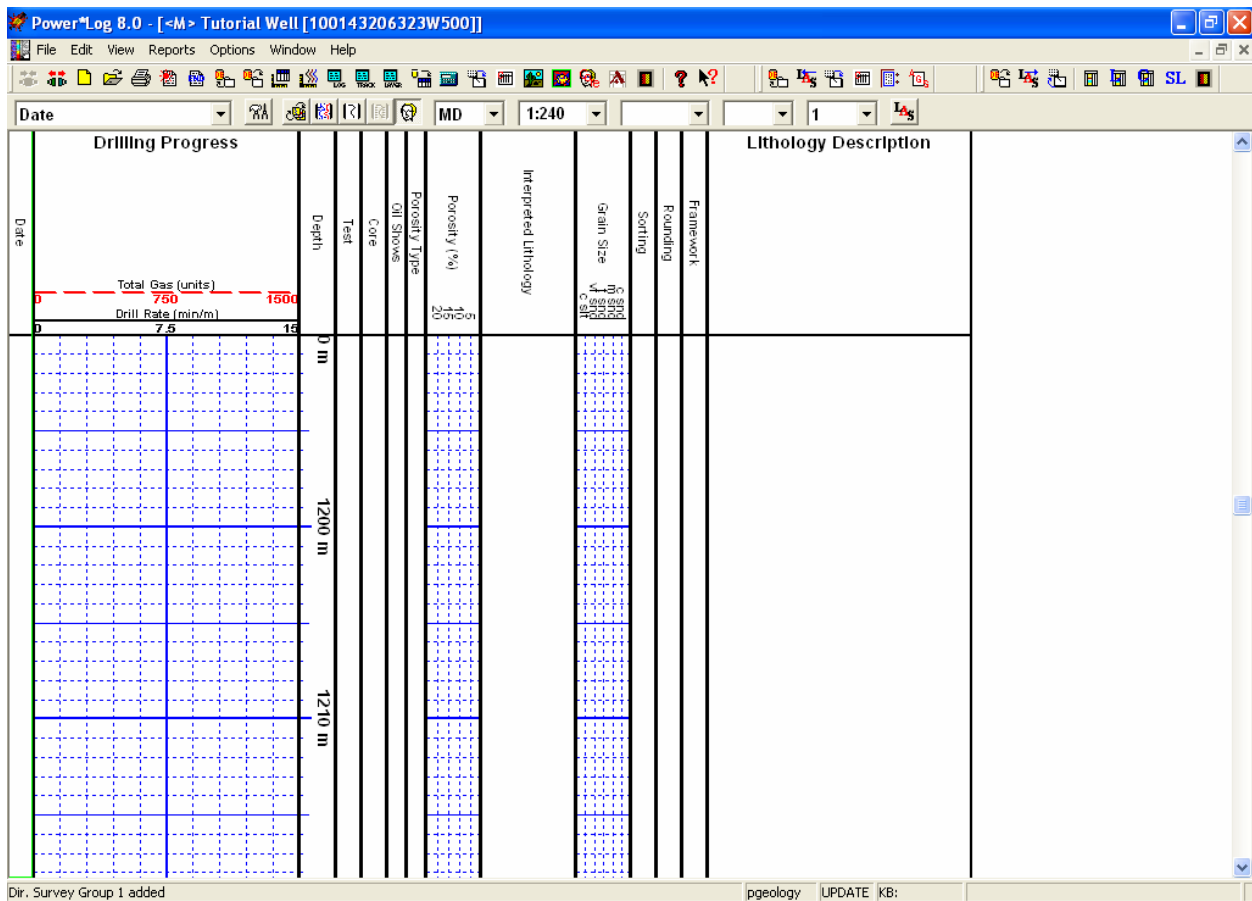


- 10.) Click on the **OK** button in the Add Curve window for Drill Rate. This will activate the second Add Curve window for **Total Gas**.

11.) Click on the  button in the **Add Curve** window for **Total Gas**. This will activate well and it's log layout

- You have just added two curves to the database that will be displayed as curve layers in the **Drilling Progress** track on the new Tutorial log showing the Tutorial Wells information.

**\*\*When the log opens, it should resemble this log.\*\***



12.) You can now fill in your pertinent well information by selecting **Well** under **Edit** pull down menu on the **Selection Bar** to activate the **Well** window.

The screenshot shows the 'Well' window with the following data entered:

- UWI: 100143206323W/500
- Well Name: Tutorial Well
- Operator: ABC Oil & Gas
- Drilling Contractor: Drill em Up Rig #4
- Province/State: Alberta
- Country: Canada
- Location: 14 - 32 - 63 - 23 W5M
- Licensee: ABC Oil & Gas
- License #: 123M121
- Pool: Anywhere
- Field: Special
- Elevations: Reference: Ground, Ground / Collar: 338.4, KB: 342.4, Casing Flange: 337.5
- Surface Coordinates: Latitude: 12.23 23' 23", Longitude: 21.45 35' 50"
- Bottom hole Coordinates: Latitude: 12.23 23' 23", Longitude: 21.45 35' 50"
- UTM Surface Coordinates: Northing: 1221234.34, Easting: 334213.54
- Hole Direction: Vertical
- Hole ID: Unique
- Depths: Drillers T.D. (Tally) MD: 1700, Drillers T.D. (Tally) TVD (Strap) MD: 1700, Drillers T.D. (Strap) MD: 1701, Drillers T.D. (Strap) TVD: 1701, Loggers T.D. MD: 1700.5, Loggers T.D. TVD: 1700.5
- KB to Ground: 3.45, Cut: 1
- Date/Time: Spud: Sep 12, 2006 13:00, T.D.: Nov 29, 2006 17:45, Rig Release: Dec 19, 2006 08:00
- Work Schedule: Curves, Mud Types, Dir. Surveys, Det. Lith., Abstract
- Well Status: Potential Gas Well

13.) Fill in the information you feel is necessary (The well window shown above has been filled in to give you an idea of how to complete the fields) and then **click** on the **Save** button to save any changes you have made to the database.

**Note:** Some of the fields in the **Well** window have character restrictions or mandatory requirements. Consequently, if any of these restrictions have been violated or if any requirements have not been met, the offending field will be highlighted. The nature of the problem will be displayed on the **Status Bar** (lower left corner of the screen), and you will be prompted with a system error message window.

14.) If the record has been successfully saved, **click** on the **Exit** button, when prompted with the **Shortcut Options** system window.

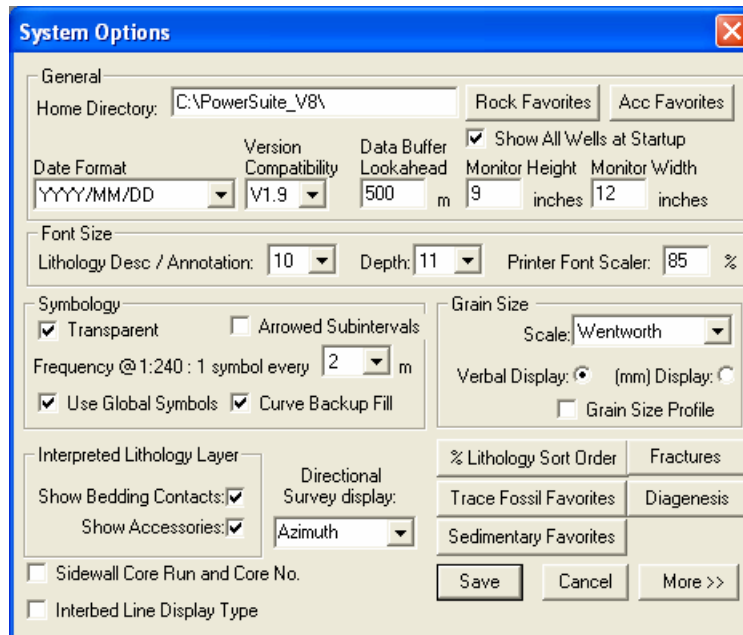
The 'Shortcut Options' dialog box displays the following text and buttons:

Record saved successfully. Choose one of the following shortcuts.

Start New Record   Move to Next Record   Exit   Cancel

## The System Options Window

To activate the System Options window **click** on **System Options** under the **Options** menu selection.



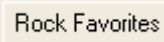
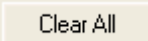
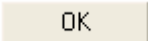
The **System Options** window is used to customize **Power\*Log / Curve & Core** system settings to suit the needs of the user. Listed below are some of the more important system settings:

**Date Format** - Allows the user to choose from several different **Types of Date Formats**.

**Monitor Height** - Used to determine the height of the monitor (in inches), on which the log is going to be displayed on your monitor to an exact scale (Power\*Log).


**Monitor Width** - Used to determine the width of the monitor (in inches), on which the log is going to be displayed on your monitor to an exact scale (Power\*Curve).

**Rock Favorites** - Allows the user to determine their favorite **Rock Types** and then displays them in a Toolbox menu generated by the activation of the **Rock Type Builder** window in the **Interpretive Lithology** track.

- 1.) **Click** on the  **button** in the **System Options** window.
- 2.) **Click** on the  **button** in the Rock Type Favorites list window to prepare it for the selection of your Rock Favorites.
- 3.) **Select** the following **Rock Types** from the **Rock Type Favorites** list window:
  - Anhy (prim) [Anhydrite (primary)]**
  - Sh m gy [Shale medium gray]**
  - Ss [Sandstone]**
  - Plus any other rock types you would use a lot.**
- 4.) **Click** on the  **button** to return to the **System Options** window.

**Accessory Favorites** - Allows the user to determine their favorite **Accessories** and then displays them in a pop-up menu generated by the activation of the **Accessory Builder** window in the **Interpretive Lithology** track.

- 1.) **Click** on the  **button** in the System Options window.

- 2.) Click on the  button in the **Accessory Favorites** list window to prepare it for the selection of your **Accessory Favorites**.
- 3.) Select the following **Accessories** from the **Thinbed**, **Components**, and **Cement** headings in the **Accessory Favorites** list window:

**Thinbed**

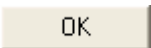
cht dk pebbles [chert dark pebbles]  
sh gy stringers [shale gray stringers]

**Component**

aren [arenaceous]  
fld grs [feldspar grains]  
pyric [pyritic]  
sac [salt casts]  
silty [silty]

**Cement**

sils [siliceous]  
Plus other components that you would use a lot.

- 4.) Click on the  button to return to the System Options window.

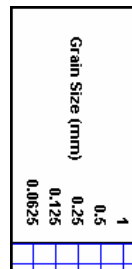
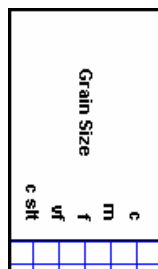
**Font Size** - Used to determine the default **Font Size** for **Sample/Lithology Descriptions, Annotations,** and the **Measured Depth** readings displayed on the **Depth** track.

**Printer Font Scaler** - Used to scale the default printer's font size up or down, so that the font size on printouts matches the font size displayed on the screen.

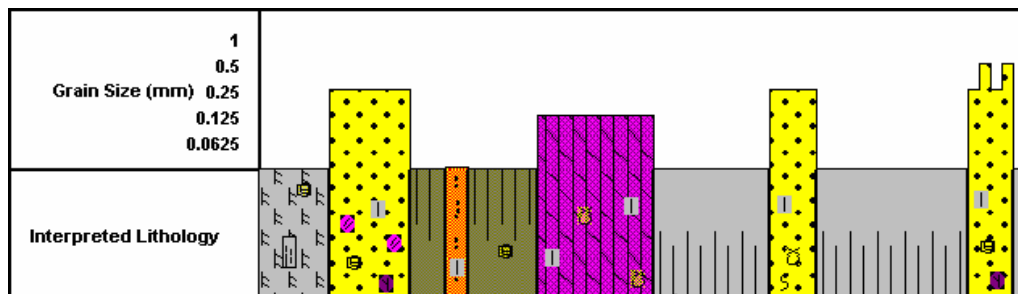
**Symbol Frequency** - Used to determine the frequency with which symbols will appear on the **Framework, Oil Show, Rounding, Sorting, Sedimentary Structure, Rock Accessories, and Trace Fossil** tracks, e.g. one (1) symbol for every 2 meters of Measured Depth.

**Arrow Subintervals** – This selection will replace the Symbol frequency for subintervals only. It will place arrowheads and lines to show where the subinterval depths top and base depths are as well as your chosen symbol in the middle of the interval.

**Grain Size mm Scale Radio Button**- This radio button will display the **Grain Size Track header** with the equivalent numeric grain sizes (in mm) such as .0625, .125, .25, .5, 1, 2 etc.



**Grain Size Profile**- This check box () will activate the grain size profile option which has the interpretive lithology fill up to the maximum grain size filled in over the interval. The user may wish to turn off the track borders when this option is selected.



**% Lithology Sort Order** - If the user is utilizing the Percent Lithology in the Sample Description Report they can move the ordering (left to right on the Layer / Tack).

**Trace Fossil Favorites** - Allows the user to determine their favorite Trace Fossil and then displays them in a pop-up menu as well as a **Trace Fossil Toolbox** in the **Trace Fossil** track. Not applicable to Power\*Log.

**Sedimentary Favorites** - Allows the user to determine their favorite Sedimentary Structures and then displays them in a pop-up menu as well as a **Sedimentary Structures Toolbox** in the **Sedimentary Structures** track. Not applicable to Power\*Log.

**Fractures Favorites** - Allows the user to determine their favorite **Fractures** and then displays them in a pop-up menu as well as a **Fractures Toolbox** in the **Fractures** track. Not applicable to Power\*Log.

**Diagenesis Favorites** - Allows the user to determine their favorite **Diagenesis** and then displays them in a pop-up menu as well as a **Diagenesis Toolbox** in the **Diagenesis** track.

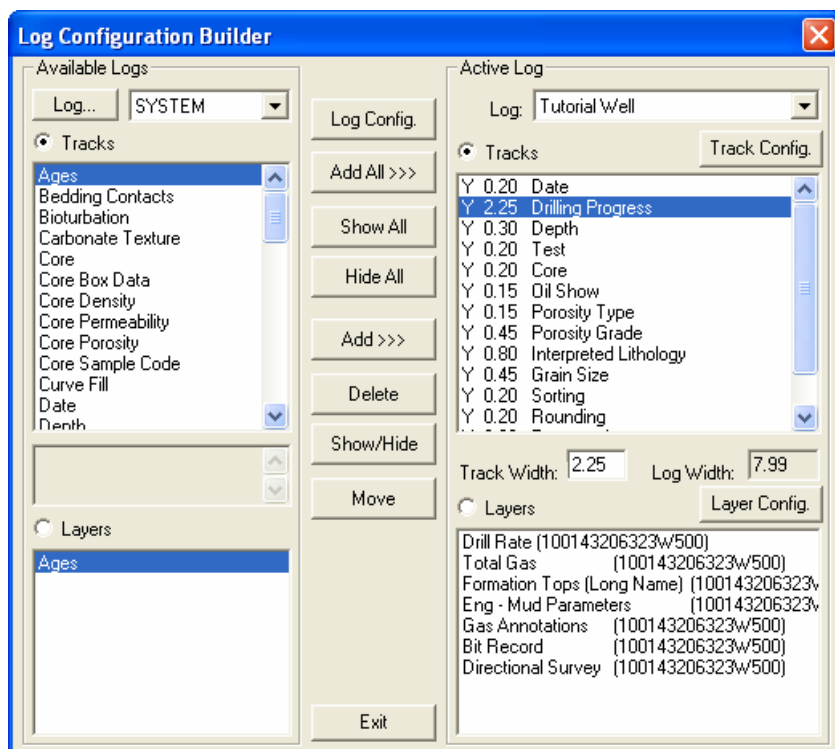
5.) Click on the  **Save** button to return to the Main Power\*Log window.

### The Log Configuration Builder window

- This is the heart of the Log/Track/Layer configurations and controls the way your well's information is displayed on the log.
- The well may have a lot of information stored in the database, but that information cannot be shown graphically on the log until the necessary layers are added to illustrate that information.

1.) Click on **Log Configuration Builder** under the **Options** menu on the **Selection Bar** or click on

the **Log Configuration Builder**  button on the **Toolbar** to activate window:



## Fundamentals of the Log Configuration Builder Window

### The left side of the Log Configuration Builder window: Available Logs

The **Available Logs** section or **left** side of the **Log Configuration Builder** window allows you to take any track or layer from **Available Logs** and add it to the log you are currently creating/building. On the **left** side of the window, below the **Tracks** radio button is a list of the tracks available for adding to the **Active Log**.

The **Available Logs** section or left side of the window contains the track and layer configuration of the **SYSTEM [SYSTEM]** log, when the window first opens. You have the option of using any of the existing **Tracks** and their associated layers or any of the existing **Layers** that are associated with any of the

system logs in the log database. The user can **click** on the **Log...** **SYSTEM** button on the left side of the screen to activate a selection list of all log formats that are in your database. The list is comprised of two (2) names with the first name in the list being the system **Log Name** and the second name (in brackets), being the **UWI** of its primary well. **Double click** on the log format you wish to copy from.

Below the **Layers** radio button, on the **left** side of the window, is a list of the layers available in the track highlighted above. They will be added all at once, if you add their parent track. However, they can also be added on an individual basis, if you only want to add one(1) layer to an existing **Active Log** track.

### The right side of the Log Configuration Builder window: Active Log


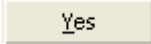

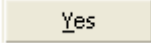
The **Active Log** section or the **right** side of the window displays the track and layer configuration of the **Active Log** (the log you are currently creating), in the main **Power\*Log** window. The name of the log is viewed in the **Log** field. In this case, it will be "**Tutorial Well**." Below the **Tracks** radio button on the **right** side of the window, is a list of the tracks that are currently found within the **Active Log**. The track at the top of this list is drawn on the left side of the log, while the track on the bottom of the list is drawn on the far right of the log with all of the other tracks drawn in between, respectively. Below the **Layers** radio button on the **right** side of the window, is a list of the layers that are associated with the track highlighted above.

### The middle of the Log Configuration Builder window: Selection Buttons




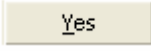

The **selection** buttons, found in the middle column of the window, are for adding layers or tracks from the **Available Logs** to the **Active Log**, activating/deactivating the **Active Log's** tracks, deleting active log tracks or layers, and moving tracks or layers within the **Active Log** itself. Step-by-step instructions for accomplishing these tasks are provided on the following pages.

### Working with the Log Configuration Builder Window

#### Deleting the Date and the Framework tracks on the Tutorial Log...

- 1.) **Highlight** the **Date** track on the right side of the window by **clicking on it**.
- 2.) **Click** on the  **button**. This action will prompt you with a system message, "**Do you want to delete the selected track in your log?**" **Click** on the  **button**. The **Date** track has now been removed from the Tutorial Log.
- 3.) **Highlight** the **Framework** track by clicking on it once.
- 4.) **Click** on the  **button**. This action will prompt you with a system message, "**Do you want to delete the selected track in your log?**" **Click** on the  **button**. The **Framework** track has now been removed from the Tutorial Log.

#### Adding a Slide - Rotate Track to the Tutorial Log


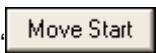
- 1.) On the left side of the Log configuration window scroll down the list of tracks and **click** on the **Slide - Rotate** track. The track will become highlighted and the  **Tracks** **radio button** will become activated.
- 2.) On the right side of the Log configuration window **click** on the **Depth Track**. The track will become highlighted and the  **Tracks** **radio button** will become activated.
- 3.) In the middle of the Log configuration window **click** on the  **button**. This will activate a System Message asking the user "Do you really want to ADD the selected (track) from the available log to the active log?"
- 4.) **Click** on the  **button**. This will activate a Get Name window asking the user to name the track.
- 5.) The user may change the name or accept the Slide - Rotate as a name by **clicking** on the  **button** and the track will be added above the Depth Track or to the left on the vertical log.

#### Resizing a track...



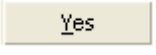
- 1.) Scroll down the tracks list, on the **right** side of the **Log Configuration Builder** window and **click** on the **Lithology Description** track.
- 2.) **Double click** in the **Track Width** field (2.24) and **Type** in the new value of **2.5** Then, **press** the **Tab** key and the total width of the log itself will change to reflect the increase in the width of the **Lithology Description** track as well as the Log width field.

**Note:** For paper 8.5" wide, 8.00" is the widest that you want your log to be, especially if you are printing out the log in the **Portrait** paper orientation.


### Moving the Oil Show track...

- 1.) Scroll down the tracks list, on the **right** side of the **Log Configuration Builder** window, and **click** on the **Oil Show** track to highlight it.
- 2.) **Click** on the  button and it will change to ".
 Then, **click** on the **Lithology Description** track. The **Oil Show** track will then be placed above the **Lithology Description** track (to the left of the **Lithology Description** track on the actual log).


### Deleting the Bit Record layer from the Drilling Progress track...

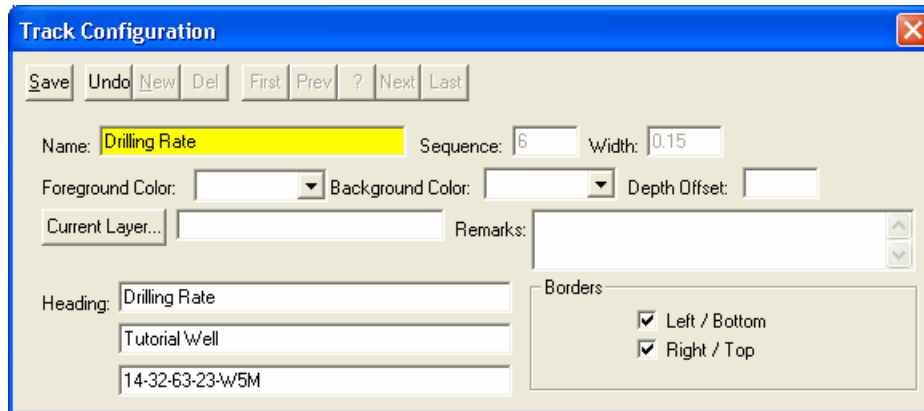
- 1.) Scroll up through the tracks list, on the **right** side of the **Log Configuration Builder** window, and **click** on the **Drilling Progress** track to highlight it. Notice that the layers associated with this track are displayed below, in the **Layers** list box.
- 2.) Highlight the **Bit Record** layer, in the **Layers** list box, by clicking on it once. Notice that the  **radio button** is automatically activated by highlighting a given layer.
- 3.) **Click** on the  button. This action will prompt you with a system message, "**Do you want to delete the selected layer in your log?**" **Click** on the  button. The **Bit Record** layer has now been removed from the log

### Turning off a track...

- 1.) Scroll down the tracks list, on the **right** side of the **Log Configuration Builder** window, and **click** on the **Test** track.
- 2.) **Click** on the  button to turn the "Y"(yes), to the left of the track name, to "N"(no), indicating that the track will not be shown on the log, until it is reactivated.
- 3.) Alternatively, you can simply **double click** on the **Test** track to turn the "Y"(yes) to "N"(no). The user will notice the log width has now decrease in size from 8" to 7.8" wide.

### Resizing and Configuring the Drilling Progress Track

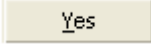
- 1.) Scroll up the tracks list, on the right side of the Log Configuration Builder window, and then highlight or **click** on the **Drilling Progress Track**.
- 2.) **Double click** in the **Track Width** field (2.25) and **Type** in the new value of **2.45**. Then, **press** the **Tab** key and the total width of the log itself will change to reflect the increase in the width of the **Drilling Progress Track** as well as increase the Log width field to 8".
- 3.) **Click** on the  button (to the right of tracks), to activate the Track Configuration window. The changes in step four have already been done in this example.

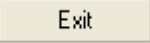


4.) Currently, the name of the track is **Drilling Progress**. To change the track name, **Type “Drilling Rate”** in the **Name** field. Then, change the **Heading** name by typing **“Drilling Rate”** into the first **Heading** field. In the second heading field, **Type** in the well name **“Tutorial Well.”** In the third heading field, **Type** in the location for the Tutorial Well, **“14-32-63-23 W5M.”** This would be beneficial if you were faxing or printing to Adobe the log only. It would identify to the client the location of the well data that is being transmitted.

5.) **Click** on the  **button** to save your changes

6.) A system message will appear asking the User. “Record saved successfully. Do you wish to exit?”

**Click** on the  **button**. This action will return you to the **Log Configuration Builder** window, where you will see the new name of your track displayed on the log you are creating. Later, when you exit from the **Log Configuration Builder** window, you will notice that the track headings have conformed to your changes.

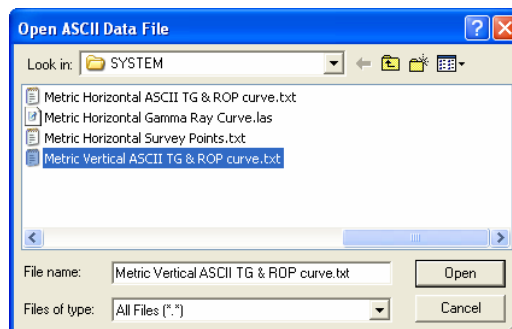
7.) **Press** the **Esc** key on the keyboard or **click** on the  **button** to exit from the **Log Configuration Builder** window. You will be returned to the main log window, where you will see the changes you have made to the new log.

### Importing ASCII File Data into the Drill Rate & Total Gas curve layers:

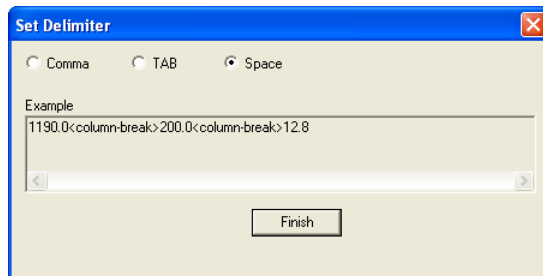
You will be able to do this import only if you have the LAS / ASCII Import Utility. If you do not have the LAS Import Module you will have to input the curve data manually as instructed on pages 19 and 20.


1.) **Click** on the **File** pull down menu, **select Import / Export** and then **select ASCII Import** from the

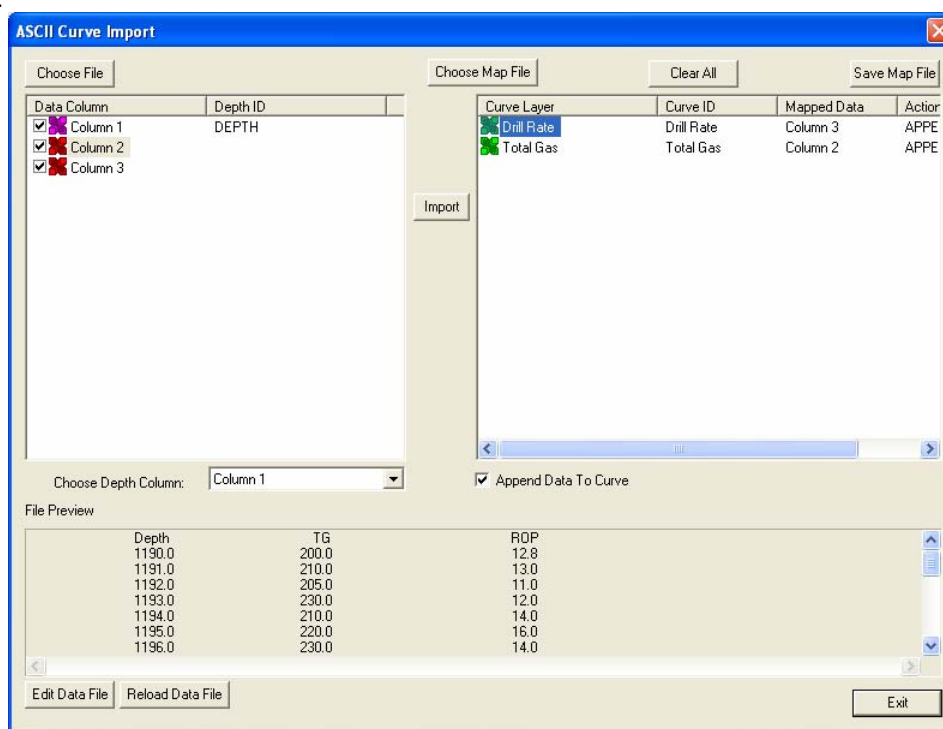
pop out menu. OR the user can **select** the  icon from the Import Tool Bar. This will activate an Open ASCII Data File window.




- 2.) Navigate to the **C:\Powersuite\_V8\system** folder and **select the Metric Vertical ASCII TG & ROP curve.txt** file. Click on the Open button. Once the file has been selected the Set delimiter window will be activated.



- 3.) This file is a Space delimited file and the default on this window is space delimited. You will see <column break> between the data points. **Click on the**  **button.** This will open the Import window.




- 4.) The default on the Depth column is Column 1 which is indicated by the purple X. **In our case the depth is the first column so we do not have to change the depth column indicator.**
- 5.) **Click on the Column 2** on the left side and **drag it to the Total Gas Curve layer** on the right side of the window. You will see Column 2 in the mapped Data field and an APPEND in the action field.
- 6.) **Click on the Column 3** on the left side and **drag it to the Drill Rate Curve layer** on the right side of the window. You will see Column 3 in the mapped Data field and an APPEND in the action field.
- 7.) **Click on the**  **Button.** This will import the curve data and prompt you with a database message saying Imported successfully.

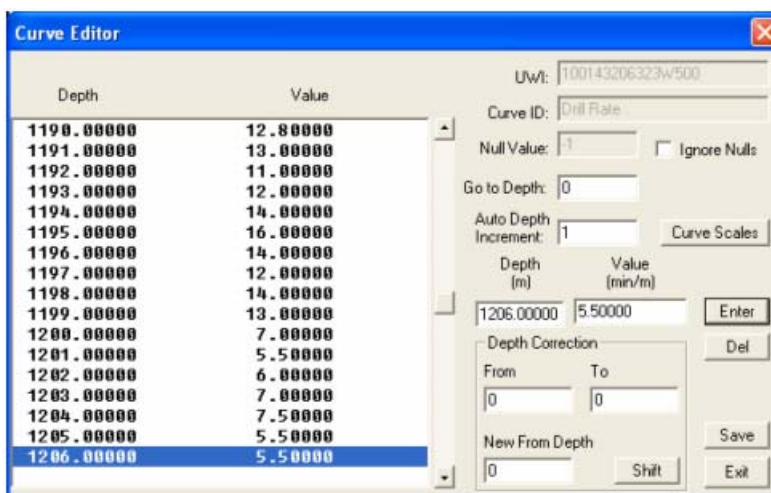


- 8.) **Click on the**  **button** to close the window.

- 9.) Click on the  button to close the ASCII Import window.

### Adding values to the Drill Rate curve layer:

- 1.) Click anywhere in the **Drilling Rate** track on the Tutorial log. Notice that a **green** border highlights or surrounds the track. This is used to indicate that the track is **ACTIVE**.
- 2.) Use the drop down arrow in the **Layer Selection List** field (located at the far left side of the **Toolbar**), to display a list of the layers in the **Drilling Rate** track.
- 3.) Click on **Drill Rate** to make it the active layer and the **Layer Selection List** will close automatically after you have made your selection.
- 4.) Double click within the active **Drilling Rate** track or click on the **Data Editing Tool of Active Layer**  button on the **Toolbar** to activate the **Curve Editor** window for the **Drill Rate** curve



Depth	Value
1190.00000	12.80000
1191.00000	13.00000
1192.00000	11.00000
1193.00000	12.00000
1194.00000	14.00000
1195.00000	16.00000
1196.00000	14.00000
1197.00000	12.00000
1198.00000	14.00000
1199.00000	13.00000
1200.00000	7.00000
1201.00000	5.50000
1202.00000	6.00000
1203.00000	7.00000
1204.00000	7.50000
1205.00000	5.50000
1206.00000	5.50000

- 5.) When the **Curve Editor** window opens, the cursor will be in the **Depth (m)** field. Type **1190** into the **Depth (m)** field and then **press** the **Tab** key on the keyboard to move the cursor to the **Value (min/m)** field.
- 6.) Type **12.8** into the **Value (min/m)** field and **press** the **Enter** key on the keyboard. The value will be entered and the **Depth (m)** field will automatically advance by the number specified in the **Auto Depth Increment** field, which is currently set at **one (1)**.
- 7.) Type in the remaining **Value (min/m)** values and **press** the **Enter** key on the keyboard after each entry. As noted above, pressing the **Enter** key on the keyboard, after each **Value (min/m)** entry, automatically advances the **Depth (m)** field by the number in the **Auto Depth Increment** field.

1191m 13.0min/m	1199m 13.0min/m	1207m 05.0min/m
1192m 11.0min/m	1200m 07.0min/m	1208m 05.0min/m
1193m 12.0min/m	1201m 5.50min/m	1209m 05.0min/m
1194m 14.0min/m	1202m 06.0min/m	1210m 12.0min/m
1195m 16.0min/m	1203m 07.0min/m	1211m 11.0min/m
1196m 14.0min/m	1204m 7.50min/m	1212m 13.0min/m
1197m 12.0min/m	1205m 5.50min/m	1213m 12.5min/m
1198m 14.0min/m	1206m 5.50min/m	

**Note:** You don't have to re-enter values if they are identical to the previous value. The previous value is already displayed in the **Value (min/m)** field, so you can just **press** the **Enter** key to insert the same value again.

- 8.) When you have finished adding values to the curve, **click** on the **Save** button.
- 9.) **Press** the **Esc** key on the keyboard to exit from the **Curve Editor** window and return to the main log.

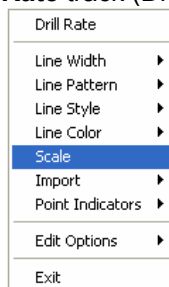
### Adding values to the Total Gas curve layer:

- 1.) **Click** on the **Layer Selection List pull down menu** item on the Selection toolbar and **Select** the **Total Gas Layer** by clicking on it. This will make it the Total Gas layer active.
- 2.) **Double click** on the Total Gas Layer to activate the builder.
- 3.) **Type** in 1190 in the depth field.
- 4.) **Depress Tab key** and **Type 200** in the units field.
- 5.) **Depress** the **Enter key** on your keypad
- 6.) Enter the rest of the data meter by meter from the data below by typing in the value and hitting your **Enter key** on your keypad. **Save**

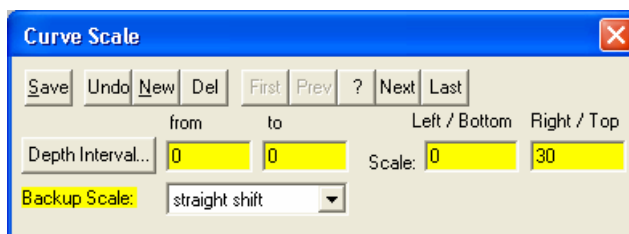
1191	210	1197	235	1203	980	1209	200
1192	205	1198	220	1204	560	1210	210
1193	230	1199	450	1205	450	1211	195
1194	210	1200	900	1206	345	1212	200
1195	220	1201	970	1207	230	1213	210
1196	230	1202	950	1208	190		

### Changing Curve Scales

- 1.) **Click** on the **Layer Selection List pull down menu** item on the Selection toolbar and **Select** the **Drill Rate Layer** by clicking on it. This will make it the Drill Rate layer active.
- 2.) **Right click** anywhere within the **Drilling Rate** track (Drill Rate Layer) to activate the pop-up menu.



- 3.) **Select Scale** from the pop-up menu to activate the **Curve Scale** window for the **Drill Rate** curve. In this figure the user will notice the Scale has already been changed.



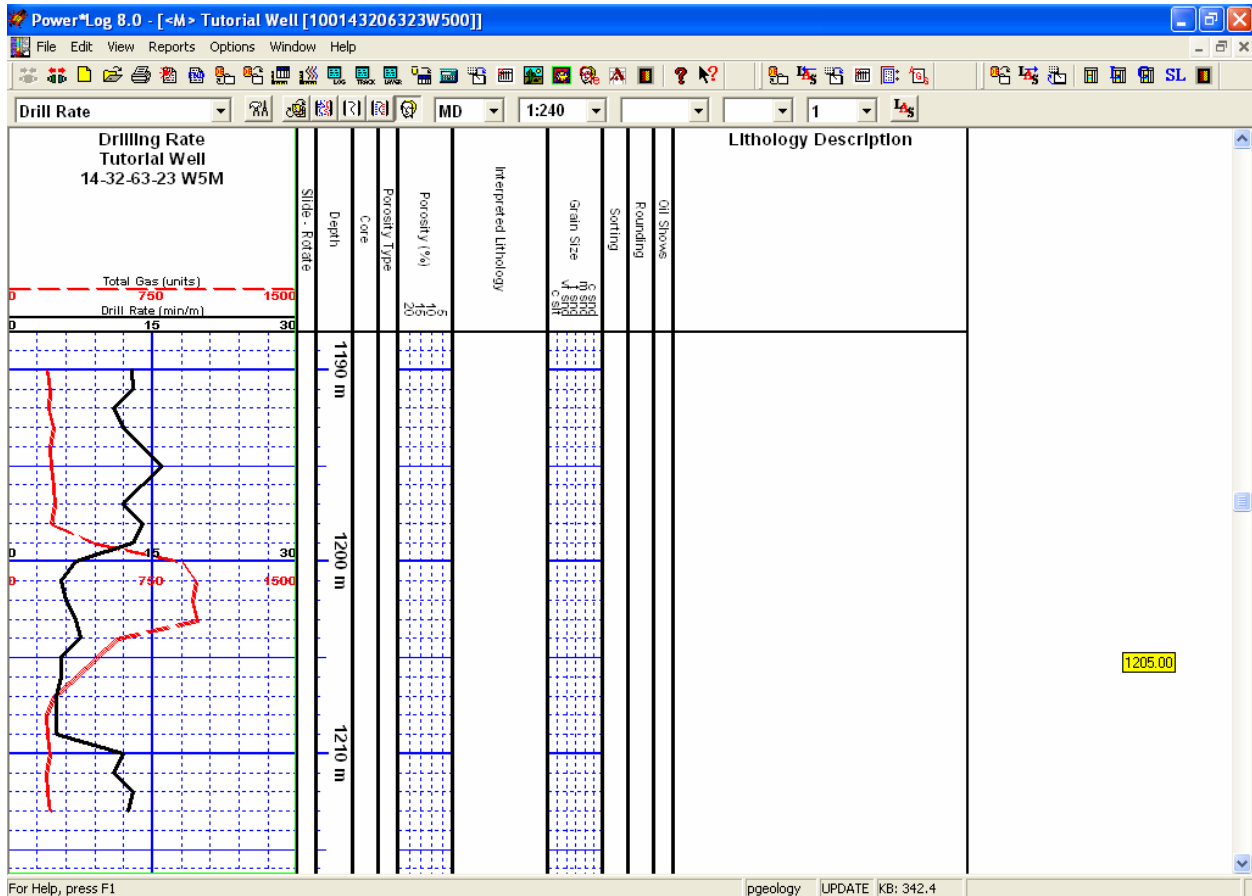
- 4.) Notice that the default scale (when the curve was originally added to the log), was **0 to 15 min/m**, as you would see in your window. To change the original scale from **0 – 15 min/m** to **0 - 30min/m**,

simply adjust the **Right / Top Scale** value to **30** by **double clicking** in the **Right Scale** field and typing in a value of **30**.

**Note:** The backup scale (in this case **straight shift**), is there in case the curve values go off-scale (more than **30 min/m**). A **straight shift** backup scale for an original scale of **0 to 30min/m** would be **30 to 60min/m** for **Left and Right Scale** values, respectively.

4.) Click on the **Save** button and select **Exit** from the ensuing **Shortcut Options** window.

**\*\*Your log should now look like the log below.\*\***



## Adding Sample Descriptions

- 1.) Click on **Sample Description**, under **Reports** on the **Menu Bar** to open the **Sample Description** window.

- 2.) Type **1190** into the **Interval (From)** field and press the **Tab** key.
- 3.) Type **1199** into the **Interval (To)** field and press the **Tab** key.
- 4.) Type **Anhy** into the **Rock Type / Heading** field and then press the **Tab** key 4 times to get to the short description field.

**Note:** The rock types have to be typed in correctly in the Short form field (according to our Geological Expansion Dictionary) in order for the Rock Type to be filled in when the **Enter** key is depressed.

- 5.) Type the following description into the **Short Description** field, exactly as it appears below:

*wh, lt gy, crpxl, com sacs, sft, dns, ns.*

**Note:** The **Short or Long Descriptions** can be transferred to the **Lithology Description** layer and only the **Long Description** will be printed out in the **Sample Description**.

- 6.) Select the **Automatic Transfer**, **Transfer Depth Range** and **Transfer Short Form** check boxes () , as shown in the preceding sample description window.
  - 7.) Click on the **Save** button and then select **Start New Record** from the ensuing **Shortcut Options** window. You will see your sample description on the log at 1190m with the options selected in step 6.
- **Adding another Sample Description to the same interval...**
- 1.) Type **Sh** into the **Rock Type** field, **tab 4 times** and Type the following description into the **Short Description** field:

*lt gy, wxy, bentic, occlly slty, tr aren grs, sft, blk.*

- 2.) Deselect **Transfer Depth Range** check boxes () .

- 3.) Click on the **Save** button and then select **Start New Record** from the ensuing **Shortcut Options** window. Your description will now be viewed at 1192m.

**Note:** If you have made any typing errors the user can click on the **Cancel** button, then you can make any necessary corrections and then **Save** the record once again to replace the old record with the new one.

- **Adding another Sample Description to a new interval...**

- 1.) Click on the **Auto Next** button to advance the description interval from depth to 1199. Type in a new depth to **1204**.
- 2.) Type **Ss** into the **Rock Type** field, **tab 4 times** and then **Type** the following description into the **Short Description** field:  
*wh, lt gy, vf - f gred, w srt, sbang, qtz, tr wthrd fld grs, sils cmt, p intgran por (3-7%), sl tr ptch brn o stng, dull yel flor, fr stmg mky yel cut flor.*
- 3.) Select **Transfer Depth Range** check boxes ()
- 4.) Click on the **Save** button and then select **Start New Record** from the ensuing **Shortcut Options** window. You will see your description at 1199m.

The screenshot shows the 'Sample Description' dialog box with the following details:

- Buttons:** Save, Undo, New, Del, First, Prev, ?, Next, Last, Dictionary
- Interval:** 1204 to 1204
- Rock Type:** Ss
- Short Description:** wh, lt gy, vf - f gred, w srt, sbang, qtz, tr wthrd fld grs, sils cmt, p intgran por (3-7%), sl tr ptch brn o stng, dull yel flor, fr stmg mky yel cut flor.
- Long Description:** Sandstone; white, light gray, very fine to fine grained, well sorted, subangular, quartz, trace weathered feldspar grains, siliceous cement, poor intergranular porosity (3-7%), slight trace patchy brown oil staining, dull yellow fluorescence, fair streaming milky yellow cut fluorescence.
- Transfer Options:**
  - Automatic Description transfer
  - Transfer to Annotation Group: lithtext1
  - Transfer Depth Range
  - Transfer %
  - Transfer Short Form

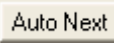
- **Adding more Sample Descriptions to a new interval...**


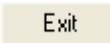
- 1.) Click on the **Auto Next** button to advance the description interval from depth to 1204. Type in a new depth to **1209**.
- 2.) Type **Ss** into the **Rock Type** field, **tab 4 times** and then **Type** the following description into the **Short Description** field:

*wh, lt gy, vf - m gred, modly w srt, sbang, qtz, tr wthrd fld grs, tr dk cht pbls, sils cmt, fr intgran por (6-10%), q brn o stng, no cut flor.*


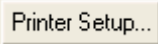
- 3.) Deselect **Transfer Depth Range** check box ().
- 4.) Click on the  button and then select  from the ensuing **Shortcut Options** window. You will see your description at 1204m.

- **Adding our Last Sample Descriptions utilizing the Auto Next button...**


- 1.) Click on the  button to advance the description interval **from depth to 1209**. Type in a new depth to **1213**.
- 2.) Type **Sh** into the **Rock Type** field, **tab 4 times** and then **Type** the following description into the **Short Description** field:
 

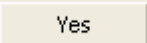
*m - dk gy, micmica, v carb, calcs, fis.*
- 3.) Deselect **Transfer Short Form** check box (.
- 4.) Click on the  button and then select  from the ensuing **Shortcut Options** window. You will see your description at 1209m.

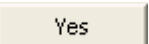
### Printing out Sample Descriptions

- 1.) Click on the  **Print Well End Report** button on the **Toolbar** or select **Print Well End Report**, under **File**, on the **Selection Bar** to activate the **Power\*Log Report: Well End Report** window.
- 2.) The **Well End Report** print window will automatically default to the active **Well/Log Name** and its associated **UWI**: you will see **Tutorial Well (100143206323W500)** in the **Well List** field and it should be highlighted. If it is not highlighted, move the mouse pointer to the **Well List** field and **click** on the desired **Well / Log Name** to highlight the **Well** you wish to print information from.
- 3.) Highlight **Sample Descriptions** in the **Reports** field by **clicking on it once**.
- 4.) **Select Printer** from the **Output** drop box field list.
- 5.) Click on the  button, in the upper right corner of the **Well End Report** window, to activate the **Print Setup** window. Notice that the currently selected printer is listed beneath the **Default printer** radio button () at the top left of the **Print Setup** window. Use the **Printer** section of the **Print Setup** window to specify the use of a printer other than the default printer.

**Note:** Power\*Log™ automatically defaults to a **Paper Orientation** of **Portrait** and a **Paper Size** of **8 5 x 11**, as specified in the **Orientation** and **Paper** sections, respectively, of the **Print Setup** window. Please do **NOT** change these default settings.

- 6.) Make sure that the **All** check box () in the **Sample Description** section at the lower right of the **Well End Report** window, is activated.
- 7.) Click on the  button in the **Well End Report** window to printout the **Sample Descriptions**.
- 8.) When you are finished, **press** the **Esc** key on the keyboard to exit from the **Well End Report** window and to activate the following system message, "**Do you want to save the setup configuration?**"
 

Click on the  button and all of the printer selection/settings information utilized in the **Well End Report** window will be saved to the database for any future **Well End Report** print jobs.

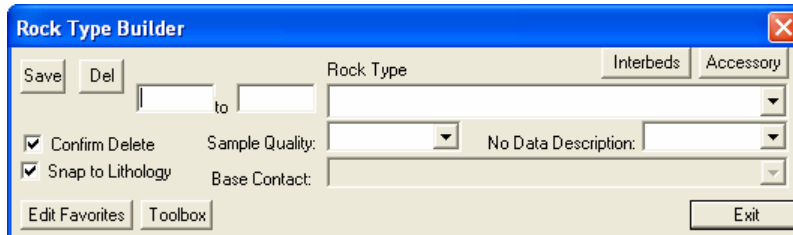
Clicking on the  button will also return you to the main log window.

## Drawing Interpreted Lithology

**Note:** To work on any layer in any track, simply **double click** on the track in which you wish to work to activate the “**builder**” window for that particular layer. Once the “**builder**” window for a given layer is active, you are then able to access the pop-up menu [**right click**] associated with that “**builder**” window and may proceed to enter any necessary intervals and graphical descriptions for the given layer.

- **Drawing Rock Types...**

- 1.) **Double click** anywhere within the **Interpreted Lithology** track to activate the **Rock Type Builder** window and the Toolbox with your Favorites Rock Type List.



- 2.) The user can move the Tool Box to a position where it is out of the way by clicking and dragging the Tool Box menu bar.

**Note:** The graphical images utilized in the Tool Box window represent specific **Rock Types** selected by the user in the **System Options** window (See **System Options** earlier in this tutorial). The written descriptions of the **Rock Types** illustrated in the above diagram were included as a visual aid and do not normally accompany a pop-up menu.

- 3.) **Select** the **Rock Type** for **Anhydrite (primary)** from the Tool Box window and it will automatically be displayed in the **Rock Type** field within the **Rock Type Builder** window.
- 4.) Define the top interval by **clicking and holding** the **left** mouse button at **1190m** on the **Interpreted Lithology** track.
- 5.) Define the bottom interval by **dragging** the mouse pointer to **1199m** on the **Interpreted Lithology** track.
- 6.) Release the mouse button and the interval will be drawn accordingly.

- **Drawing another Rock Type...**

- 1.) **Select** the **Rock Type** for **Sandstone** from Tool Box window and it will automatically be displayed in the **Rock Type** field within the **Rock Type Builder** window.
- 2.) Define the top interval by **clicking and holding** the **left** mouse button at or close to ( if the  **Snap to Lithology** is activated) **1199m** on the **Interpreted Lithology** track.
- 3.) Define the bottom interval by **dragging** the mouse pointer to **1210m** on the **Interpreted Lithology** track.
- 4.) Release the mouse button and the interval will be drawn accordingly.

**And another...**

- 1.) **Select** the **Rock Type** for **Shale (medium gray)** from the Tool Box window and it will automatically be displayed in the **Rock Type** field within the **Rock Type Builder** window.
- 2.) Define the top interval by **clicking and holding** the **left** mouse button at **1210m** on the **Interpreted Lithology** track.

- 3.) Define the bottom interval by **dragging** the mouse pointer to **1213m** on the **Interpreted Lithology** track.
- 4.) Release the mouse button and the interval will be drawn accordingly.

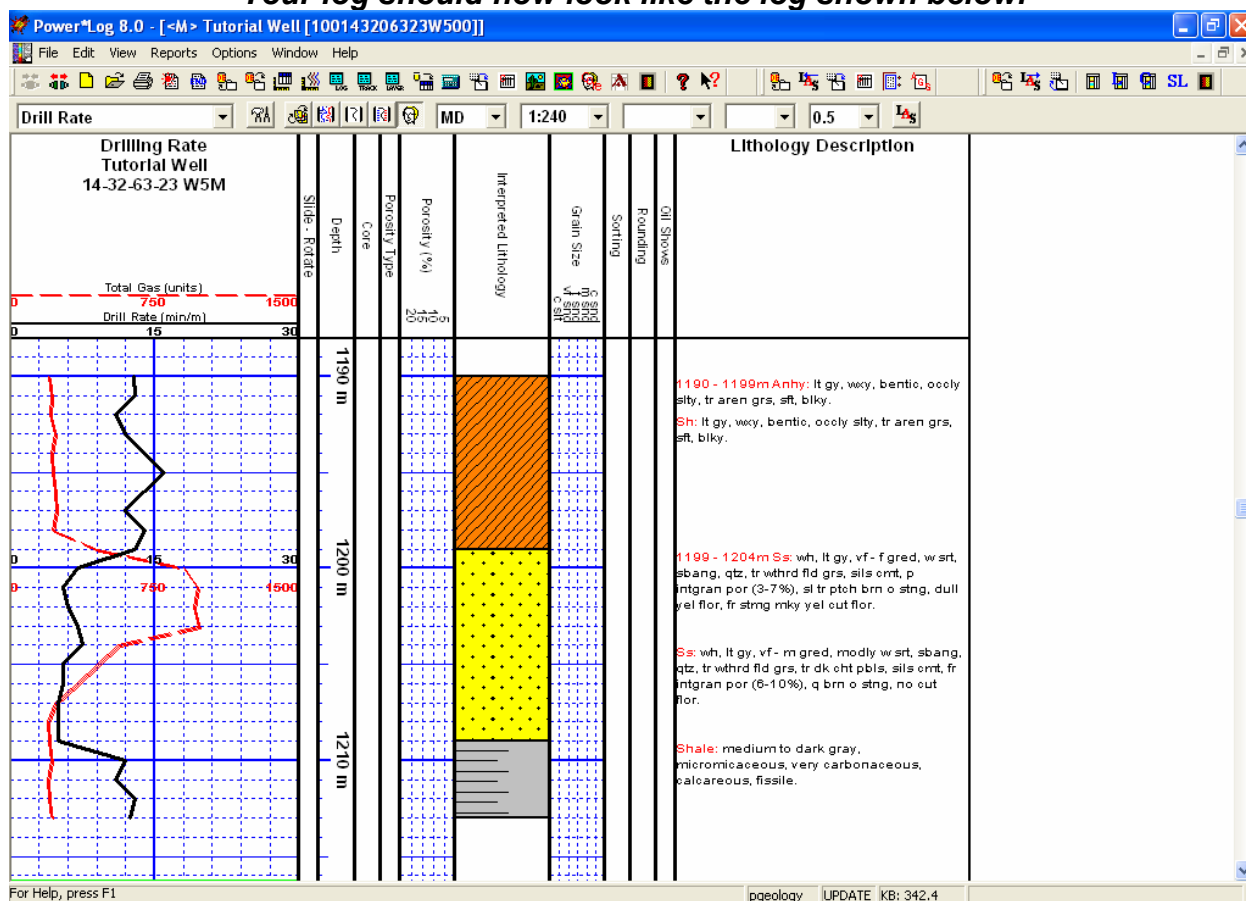
**Note:** You may wish to resize a particular bed or lithologic interval, but remember that beds cannot completely overlap one another. Also, keep in mind that only the top or the bottom of a particular bed can be resized at any one time. Accordingly, if you wish to resize both, you will have to do it twice.

• **Resizing an interval...**

N.B. If you have the  **Snap to Lithology** checked and your mouse pointer accuracy is 1 you must uncheck the check box to resize the following bed or decrease the mouse pointer accuracy.

- 1.) **Press and hold the Ctrl key** on the keyboard **down**, while hovering over the bed boundary between the Shale and Sandstone bedding contact at **1210m**. You will view a mouse pointer turn into resize arrow and if the shale is viewed in the builder **click and drag** the **left** mouse button from **anywhere within the Shale bed** down one meter to **1209m** on the **Interpreted Lithology** track.
- 2.) Release the mouse button at **1209m**, followed by the release of the **Ctrl** key on the keyboard, and you will be prompted with the following system message, **“Do you really want to resize the interval from 1210.00 - 1213.00 to 1209.00 - 1213.00?”**
- 3.) **Click** on the  **button**.
- 4.) **Press** the **Esc** key on the keyboard to exit from the **Rock Type Builder** window and return to the log.

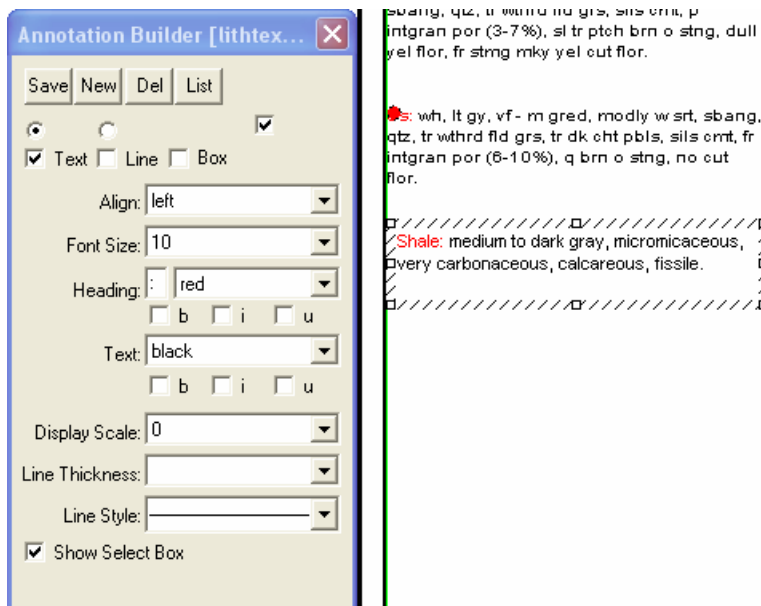
**\*\* Your log should now look like the log shown below. \*\***




## Editing Sample Descriptions

In these examples we will start from the lower descriptions and work our way up the transferred descriptions. We will demonstrate to the user how to change the position, delete and modify transferred sample descriptions.

- 1.) Make the **Lithology Description** layer active (in the **Layer Selection List** field), by **clicking once** anywhere within the **Lithology Description** track to highlight the **Lithology Description** track in **green**.
- 2.) **Double click** anywhere within the **Lithology Description** track to activate the **Annotation Builder** window.



### Moving a Sample Description:

- 1.) **Click** on the **Show Select Box** check box () and this will display the red dots associated with every **Sample Description** drawn on the **Lithology Description** layer.
- 2.) Display the desired **Sample Descriptions attributes** in the **Annotation Builder** window by **clicking once** on its **red dot** by the **Shale** description at **1209m**. This will also highlight the text on the screen.
- 3.) **Move** the **mouse pointer to the outline** and you will see the pointer turn into a  **crosshair**. **Click and drag your mouse** to move the description down one meter to **1210m**.

### Editing Sample Descriptions

- 1.) Now we will edit the Shale description at 1192m. **Click** on the **red dot** beside the **Sh** description at **1192**. You will see the descriptions attributes in the builder if selected and will be outlined on the log.
- 2.) **Move your mouse pointer** in the text field and **click between the Sh and the (:)** colon and **Type** in **lam**. Then **click** on the **Save** button. Your log should look like the log shown on **page 28** at this point in time.
- 3.) Steps 3 –6 can be done or not. They are here to show how some of the functionalities of the Annotation builder. To change the **Font Size** of the **Sample Description** now being displayed in the **Annotation Builder** window, simply **select** a new **Font Size** from the **Font Size** drop box field, **click** on the **Save** button, and the **Font Size** of the selected **Sample Description** will be changed accordingly.

**Note:** The **Change Font Size** selection in the pop-up menu should only be used to change the **Font Size** for multiple Sample Descriptions.

- 4.) To change the text of the **Sample Description** now being outlined with its attributes being displayed in the **Annotation Builder** window, simply edit the **Sample Description** text within the outlined area and then **click** on the **Save** button when you are finished.

**Note:** If you wish to edit any other **Sample Description** parameters, including the **Display Scale**, simply make the necessary changes within the **Annotation Builder** window, **click** on the **Save** button, and the **Sample Description** will be changed accordingly.

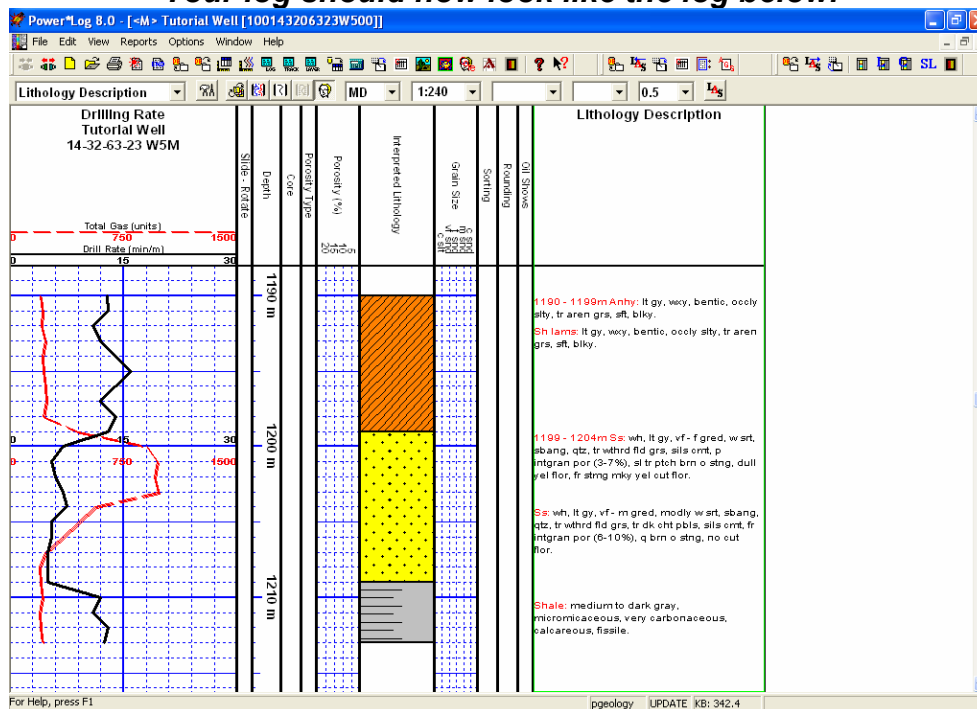
- 5.) If you wish to modify the **Sample Description** further, you can use the **Heading**, **Color**, **Bold**, **Italicize**, and **Underline** fields to modify the appearance of the **Sample Description** header and/or text. For example, The **Bold** check box ( **b**) can be activated to bold the **Sample Description** header and/or text. The *Italic* check box ( **i**) can be used to italicize the **Sample Description** header and/or text, and the Underline check box ( **u**) can be used to underline the **Sample Description** header and/or text. Moreover, the **Sample Description** header and/or text may also be assigned different colors selected from the **Color** drop box fields.

Then, decide how **Power\*Log™** will distinguish what portion of the **Sample Description** is the header and what portion is the text by inserting a character, most often a colon":", in the **Heading:** field to indicate the separation of the header from the **Sample Description** text. This is applicable to every line in the **Sample Description** and you can have numerous headers as a result.

For example, if you used the colon ( : ) displayed in the **Heading:** field by default, as your header, and then typed "**Lithology : no data**" in the main text field. "**Lithology**" would inherit whatever modifications, if any, were made to the **Color**, **Bold**, **Italicize**, and **Underline** fields located to the right of the **Heading:** field, while the "**no data**" would inherit whatever modifications, if any, were made to the **Color**, **Bold**, **Italicize**, and **Underline** fields located to the right of the word **Text:**

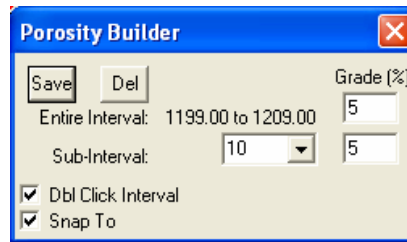
- 6.) **Press** the **Esc** key on the keyboard to exit from the **Annotation Builder** window, when you are finished.

**\*\*Your log should now look like the log below.\*\***



## Drawing Porosity (%)

- 1.) Double click on the **Porosity (%)** track to activate the **Porosity Builder** window.

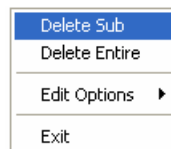


- 2.) Double Click the mouse pointer (with the  Dbl Click Interval check box activated) between **1199.00** and **1209.00m @ [5%]** **1202.00 [5%]** and the entire interval will be drawn accordingly in purple to represent an entire interval.
- 3.) Click and drag the mouse pointer from **1204.00 [8%]** to **1209.00** **1209.00**, release the mouse button, and the desired **Porosity Grade** will be drawn accordingly in green to represent a subinterval.

**Note:** The mouse pointer does NOT have to be dragged to the same percentage (%) point at the bottom of the interval, as you selected at the top of the interval: the mouse pointer needs only to be dragged to the desired depth.

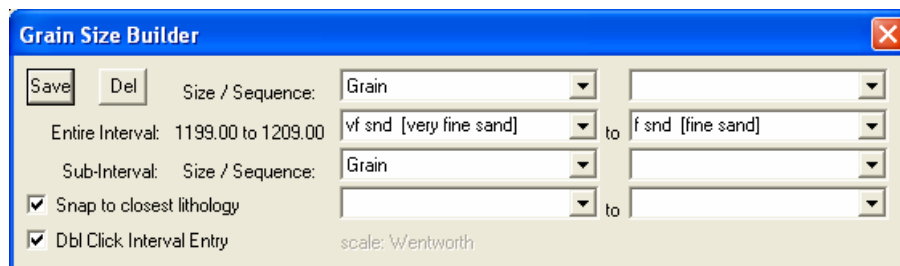
- **Deleting Porosity (%) Entire or Subinterval...**

If you wish to delete a **Porosity (%)** subinterval or entire interval, while the **Porosity Builder** window is open, **right click** within the interval slated for deletion to activate a pop-up menu, and then left or **right click** on the appropriate selection.



## Drawing Grain Size

- 1.) Double click on the **Grain Size** track between to activate the **Grain Size Builder** window.



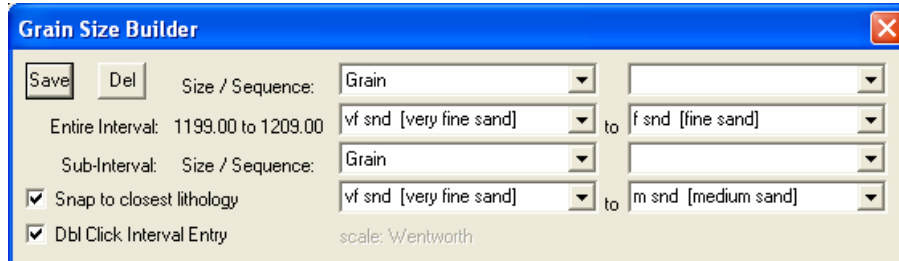
- 2.) Using the left mouse button, click and drag the mouse pointer from **1199.00 [vf snd]** to **1209.00 [f snd]** **1209.00 [f snd]** on the **Grain Size** track.

**Note:** Measured Depths and Grain Sizes, like **199.00 [vf snd]**, can be viewed within the mouse pointer display box, situated just to the right of the mouse pointer.

- 3.) Release the mouse button and the entire **Grain Size** interval will be drawn accordingly in purple to represent an entire interval.

- **Drawing a Grain Size Sub-Interval...**

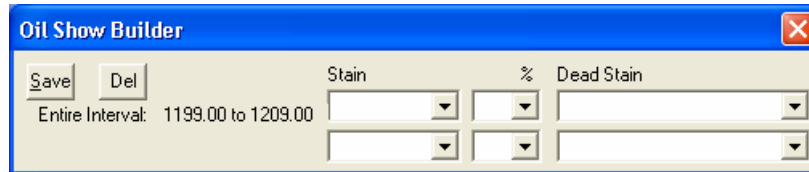
- 1.) Using the **left** mouse button, **click and drag** the mouse pointer from **1204.00 [vf snd]** to **1209.00 [m snd]**.
- 2.) Release the mouse button and the **Grain Size** Sub-Interval will be drawn accordingly in green to represent a subinterval.



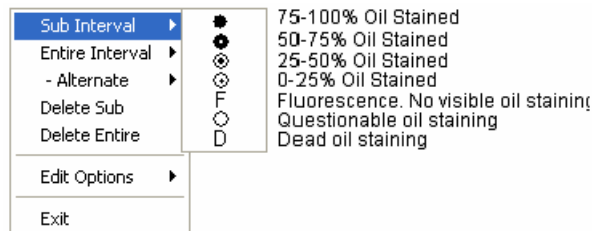
- 3.) To exit from the **Grain Size Builder** window and return to the log, **press** the **Esc** key on the keyboard once.

## Drawing Oil Shows

- 1.) **Double click** on the **Oil Show** track between to activate the **Oil Show Builder** window.



- 2.) **Right click** anywhere within the **Oil Show** interval to activate the pop-up menu.

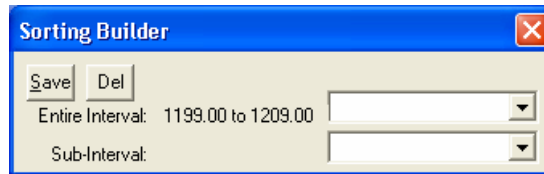


**Note:** The symbols utilized in the pop-up menu, represent a specific percentage (%) or amount of oil staining, as illustrated in the above diagram.

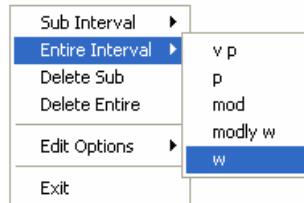
- 3.) **Select 0-25%** oil staining from the **Sub Interval** pop-up menu.
- 4.) **Click and drag** your mouse pointer from **1199m** to **1204m** and this sub-interval will be populated with the **0-25%** oil staining symbol (○).
- 5.) **Right click** anywhere on the **Oil Show** track to activate the pop-up menu.
- 6.) **Click** on the **Sub Interval** selection and then **select** questionable oil staining from the list.
- 7.) **Click and drag** your mouse pointer from **1204** to **1209m** and another **5m** sub-interval will be populated with the **questionable** oil staining symbol.

## Drawing Sorting

- 1.) Double click on the **Sorting** track to activate the **Sorting Builder** window.



- 2.) Right click anywhere within the **1199m to 1209m Sorting** interval to activate the pop-up menu.




**Note:** Each of the abbreviations utilized in the pop-up menu represent a specific degree of **Sorting**.

- 3.) Select **w** for the **Entire Interval** from the pop-up menu and the entire bed will be populated with the “**W**” symbol.

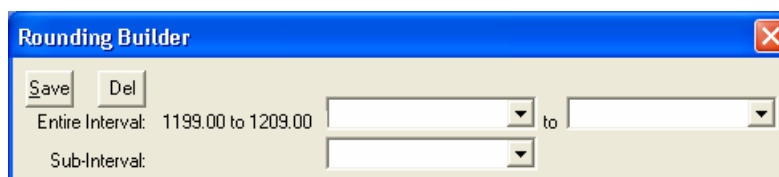
- **Drawing a Sorting sub-interval...**

- 1.) Right click anywhere within the **Sorting Track** to activate the pop-up menu.  
 2.) Select **modly w** from the **Sub Interval** pop-out menu.

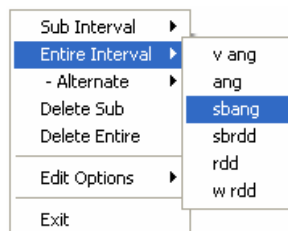
- 3.) Click and drag your mouse from **1204 to 1209m**  and one **5m** sub-interval will be populated with the “**mW**” symbol.

## Drawing Rounding

- 1.) Double click on the **Rounding** track to activate the **Rounding Builder** window.



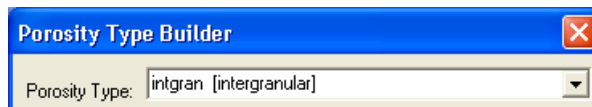
- 2.) Right click anywhere within the **1199m to 1209m Rounding** interval to activate the pop-up menu



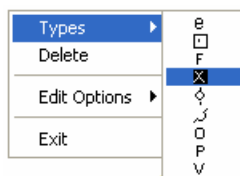
- 3.) Select **sbang** for the **Entire Interval** from the pop-up menu and the entire bed will be populated with the “**a**” symbol.

## Drawing Porosity Type

- 1.) Double click on the **Porosity Type Track** to activate the **Porosity Type Builder** window



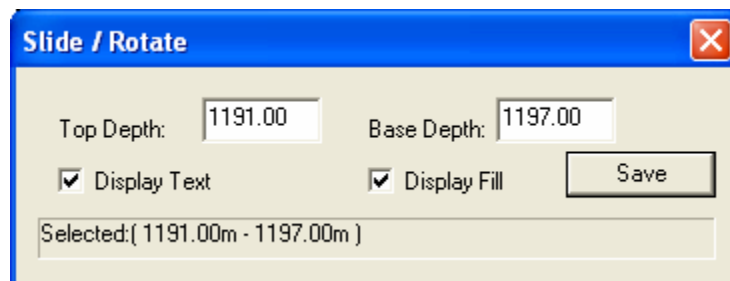
- 2.) Right click anywhere within the **Porosity Type** track activate the pop-up menu and then select types to activate the pop-out menu.



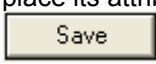


- 3.) Select **x** from the pop-up menu and click at **1200m, 1202m 1205m and 1209m** and "x's will appear at those depths.

## Drawing on the Slide – Rotate Track

- 1.) Double click on the **Slide - Rotate Track** to activate the **Slide – Rotate Builder** window

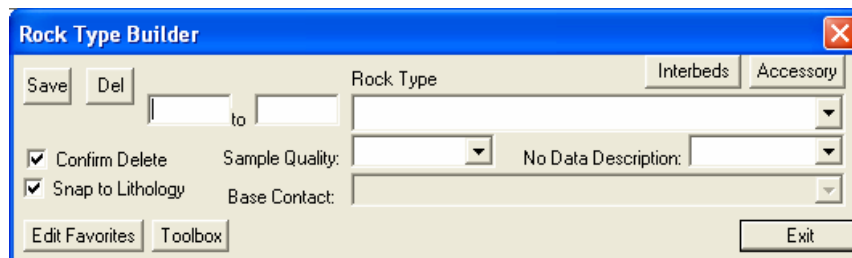


- 2.) Click and drag your mouse within the track from 1191 to 1197m  and then let go. The slide will automatically be drawn for you.
- 3.) To **RESIZE** an interval you would hold the **CTRL key** and mouse over an end point of a slide to turn the mouse pointer into a resize arrow  click and drag your mouse to a new depth interval drawn. **OR Click** on the **interval** to place its attributes into the builder and then type in a new start or end depth and then click on the  **button**
- 4.) To **DELETE** right click on the drawn interval and select delete from the pop-out menu.

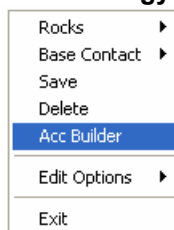
## Drawing Accessories

Using the log on page 34 as a guideline, add some **Accessories** to the log at your discretion. Listed below are the steps for adding **Accessories**:

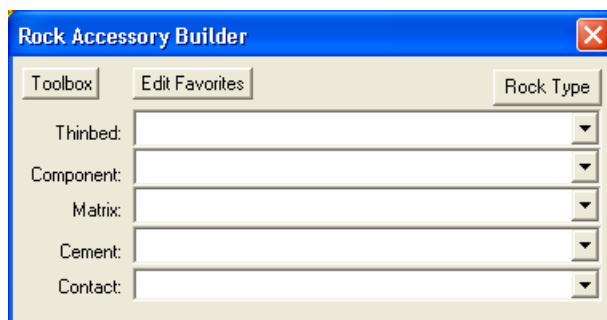
- 1.) Double click anywhere within the **Interpreted Lithology** track to activate the **Rock Type Builder** window.



2.) **Right click** anywhere within the **Interpreted Lithology** track to activate the pop-up menu.



3.) **Select Acc Builder** from the pop-up menu to activate the **Rock Accessory Builder** window or **click** on the **Accessory** button in the Rock Type builder.



4.) Now the user can move the Toolbox Favorite List by clicking and dragging the menu bar to a convenient location.

...Adding a Thinbed...

5.) **Click** on the symbol for **Shale Gray Stringers** from the Tool Box Favorites List and the **Thinbed** field in the **Rock Accessory Builder** window will be filled in with **sh gy stringer [shale gray stringers]**.

6.) **Click** anywhere within existing **Interpreted Lithology** to insert the desired **Accessories**.

**Note:** To delete an **Accessory** symbol, activate the **Rock Accessory Builder** window, **right click** on the **Accessory** symbol you wish to delete, and then **select Delete** from the pop-up menu.

- **Adding another Thinbed...**

1.) **Click** on the symbol for **Chert Dark Pebbles** from the Tool Box Favorites List and the **Thinbed** field in the **Rock Accessory Builder** window will be filled in with **cht dk pebbles [chert dark pebbles]**.

2.) **Click** along the bottom of the **Sandstone** interval to insert the desired **Accessory**.

**Note:** When placing **Accessories** on the log, you may wish to increase the mouse accuracy from the default of **1** to **0.1**. This selection box is located to the left of the **LAS** button on the **Toolbar**.

- **Adding a Component...**

- 1.) Click on the symbol for **Salt Casts** from the Tool Box Favorites List and the **Component** field in the **Rock Accessory Builder** window will be filled in with **sac [salt casts]**.
- 2.) Click anywhere within the **Anhy(prim)** interval to insert the desired **Accessory**.

### Adding another Component...

- 1.) Click on the symbol for **Silty** from the Tool Box Favorites List and the **Component** field in the **Rock Accessory Builder** window will be filled in with **slty [silty]**.
- 2.) Click within the **Anhy (prim)** interval to insert the desired **Accessory/Accessories**.

- Add the following Components...

Arenaceous

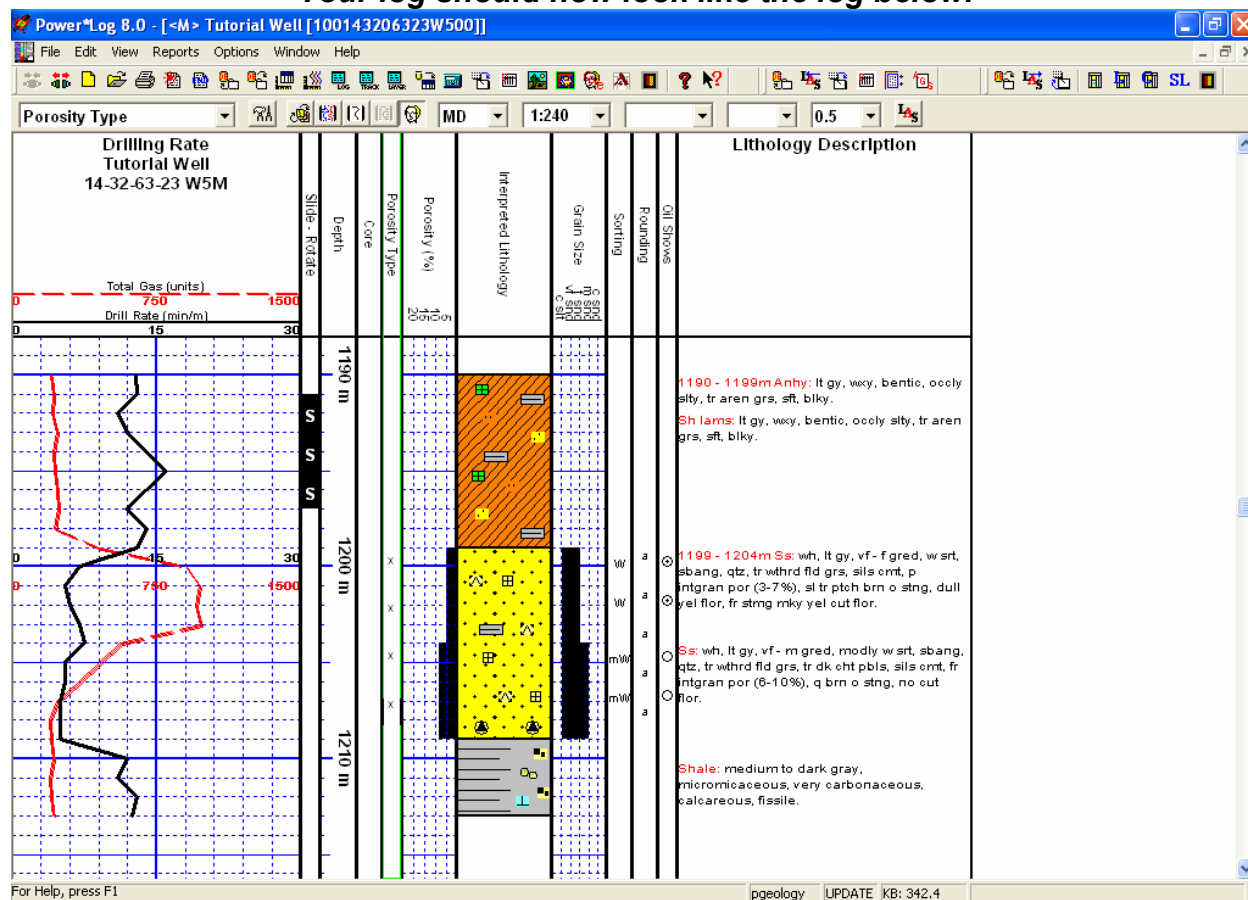
Pyritic

Feldspar Grains

- Adding Cement...

- 1.) Click on the symbol for **Siliceous** from the Tool Box Favorites List and the **Cement** field in the **Rock Accessory Builder** window will be filled in with **sils [siliceous]**.
- 2.) Click anywhere within the existing **Interpreted Lithology** intervals, that you wish to insert the desired **Accessory/Accessories**.
- 3.) Press the **Esc** key on the keyboard to exit from the **Rock Accessory Builder** window.

**\*\*Your log should now look like the log below.\*\***



## Adding a Cored Interval to the log

- 1.) Double click on the **Core** track to activate the **Well Core** report window.

**Well Core**

Save Undo New Del First Prev ? Next Last

Core #... 1 Coring Date: Dec 03, 2006

Interval	Length	Recovered	Core Diameter	Hole Size
1213 to 1224	11.00	10	101	222

Formations Cored: Fresca, Alberquerqui

Coring Company: Fred's Coring Company

Service Reps: Freddy Whyntott

Bit Used

Make	Type	Serial #	Size
BHI	C201	CS234	199

Remarks:

Coring Times: 15, 17, 20, 16, 18, 19, 12, 8, 7, 28 min/m. Core jammed off after connection @ 1223.4m. The roughneck dropped Core Box #2 on the way to the core van. Put the pieces back together the best I could. Hopefully the core gamma will help piece it back together.

Core Descriptions

- 2.) Type **1** into the **Core #** field. **Tab key**.
- 3.) Type today's date into the **Coring Date** field, using the **Date Format (MMM DD, YYYY)**, selected in the **System Options** window at the beginning of this tutorial. **Tab key**.
- 4.) Type **1213** into the **Interval (From)** field, **Tab key**, Type **1224** into the **Interval (To)** field, **Tab key** and Type **10** into the **Recovered** field.
- 5.) The rest of the fields can be filled in. Only the yellow fields are mandatory. Remember to Tab between fields.
- 6.) Click on the **Save** button and select **Cancel** from the ensuing **Shortcut Options** window.

**Shortcut Options**

Record saved successfully. Choose one of the following shortcuts.

Start New Record Move to Next Record Exit Cancel

## Adding Core Descriptions

- 1.) Click on the **Core Descriptions** button, in the Well Core window to activate the **Core Description** window.

- 2.) Type **1213** into the **Interval (From)** field, **tab** and Type **1218.4** into the **Interval (To)** field, **tab** and then Type **Sh / mnr – abnt Ss strgs** into the **Rock Type** field. **Tab** to get to the short description field.
- 3.) Type the following Core Description into the Short Description field, exactly as is:

***Sh lt gy, occlly mot dk gy, micmica, v carb, slty, plty & fis. Occ tr Sid nods & unident fos deb. Ss strgs pred @ the top of zn, v thn <2 mm thk, s&p, vf gred, py srt, sbrdd, arg & tt / ns.***

**Note:** The **Short or Long Descriptions** can be added to the **Lithology Description** layer (in the **Lithology Description** track and only the **Long Description** will still be printed out in the **Core Description Report** in the **Well End Report** window.

- 4.) Select the **Automatic Transfer**, **Transfer Depth Range** and **Transfer Short Form** check boxes () , as shown in the preceding sample description window.
- 5.) Click on the **Save** button and then select **Start New Record** from the ensuing **Shortcut Options** window. You will see your sample description on the log at 1213m with the options selected in step 4.

- **Adding another Core Description to a new interval...**

- 1.) **Type 1219.4** into the **Interval (To)** field, **tab** and then **Type Ss** into the **Rock Type** field. **Tab** to get to the short description field.
- 2.) **Type** the following **Core Description** into the **Short Description** field, exactly as is:  
*s&p, m gred, w srt, sbrdd, qtz, cht, sils cmt, fr – g intgran por (16% - 18%), abnt brn o stng, bri yel flor, ex stmg yel cut flor.*
- 3.) **Click** on the **Save** button and then **select** **Start New Record** from the ensuing **Shortcut Options** window.

**Note:** If you made any typing errors, you can make any necessary corrections now and then **Save** the record once again to overwrite the old record. You must first delete the description from the Lithology Description Layer.

- **Adding yet another Core Description to a new interval...**

- 1.) **Type 1221.4** into the **Interval (To)** field, **tab** and then **Type Sh** into the **Rock Type** field. **Tab** to get to the short description field.
- 2.) **Type** the following **Core Description** into the **Short Description** field, exactly as is:  
*It gy, ocly mot dk gy, micmica, v carb, slty, plty & fis.*
- 3.) **Click** on the **Save** button and then **select** **Start New Record** from the ensuing **Shortcut Options** window.

- **Adding yet another Core Description to a new interval...**

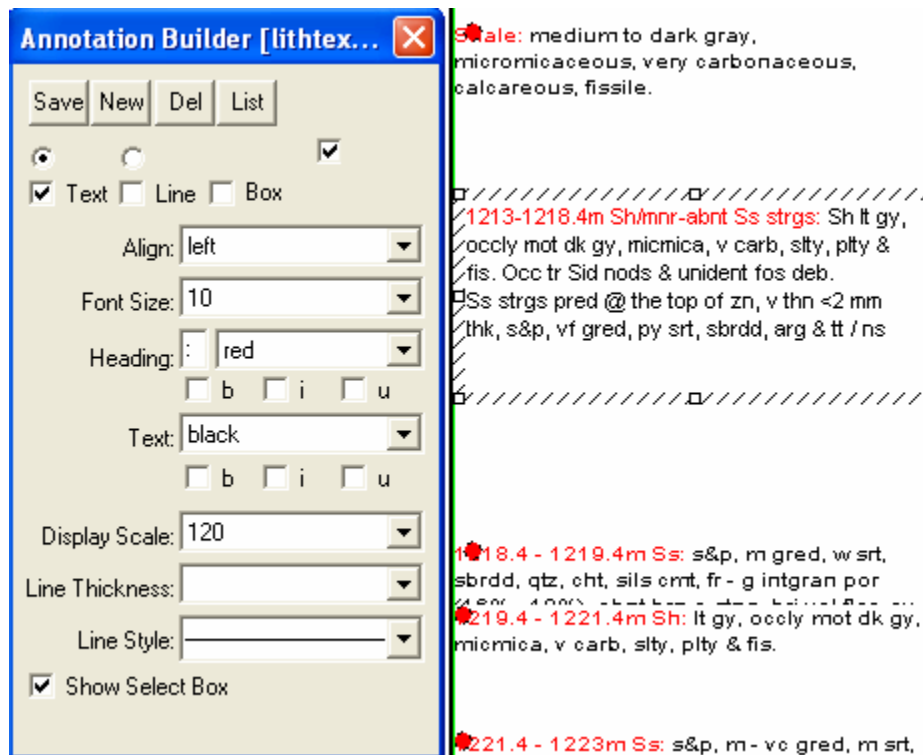
- 1.) **Type 1223** into the **Interval (To)** field, **tab** and then **Type Ss** into the **Rock Type** field. **Tab** to get to the short description field.
- 2.) **Type** the following **Core Description** into the **Short Description** field, exactly as it appears below:  
*s&p, m - vc gred, m srt, sbrdd - rdd, qtz, cht, tr sils cmt, g - ex intgran por (20% - 24%), v fri, v abnt brn o stng, bri yel flor, ex stmg yel cut flor.*
- 3.) **Click** on the **Save** button and then **select** **Start New Record** from the ensuing **Shortcut Options** window.

- **Adding the last Core Description to a new interval...**

- 1.) **Type 1224** into the **Interval (To)** field, **tab** and then **Type No Recy** into the **Rock Type** field. **Click** on the **To Long Desc** button. This will expand the abbreviated Rock type into the Long name Rock type field.
- 2.) **Click** on the **Save** button and then **select** **Exit** from the ensuing **Shortcut Options** window.

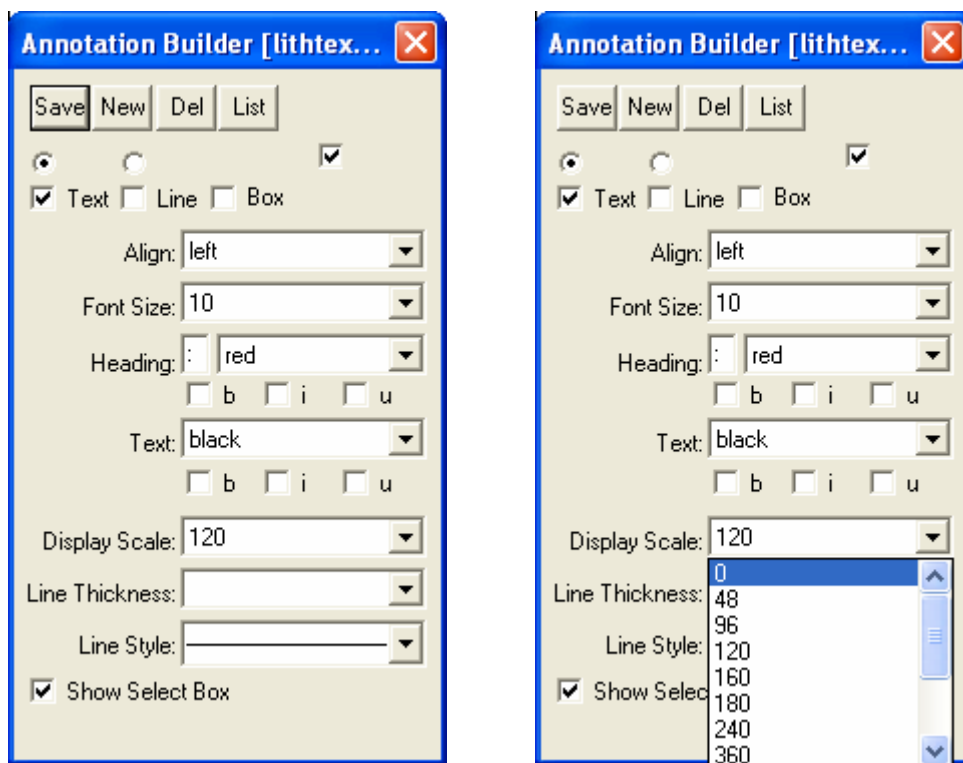
## Editing Core Descriptions


- 1.) **Double click** on the **Lithology Description** track to activate the **Annotation Builder**.




- 2.) Click on the **Show Select box** in the lower left corner of the **Annotation Builder** window to activate the check box () and to display the red dot beside all the annotations associated with this **Lithology Description** layer.
- 3.) Click on the **red dot** overlying the **1213-1218.4m Core Description**. If done correctly the **Core Description's** properties are shown in the **Annotation Builder** window and will also show a highlight around the selected annotations borders.
- 4.) Click in the **annotation itself** with your mouse and take out the spaces in the depth as well as the spaces around - / so that the header remains on one line.
- 5.) Click on the **Save** button in the annotation builder.

## Moving and changing the Display Scale options



- 1.) Click on the **red dot** overlying the **1221.4-1223m Core Description**. If done correctly the **Core Description's** properties are shown in the **Annotation Builder** window and will also show a highlight around the selected annotations borders.
- 2.) To change the **Display Scale** of the **Core Description** now being displayed in the **Annotation Builder** window, simply **select zero (0)** from the **display scale drop box** to replace the 120. (When this is done the core description will display at all log viewing and printing scales.)
- 3.) **Move your mouse pointer** onto the bordered area on the lithology description track and so that the mouse pointer turns into  cross hairs and **click** and drag to move this description so that it can be read easily.
- 4.) Click on the **Save** button.

### Moving Core descriptions

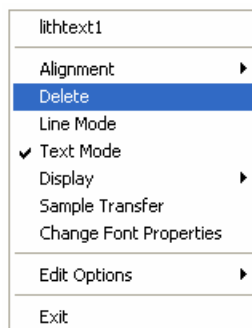
- 1.) Click on the **red dot** overlying the **Core Description** you wish to move.
- 2.) **Move your mouse pointer** onto the bordered area on the lithology description track and so that the mouse pointer turns into  cross hairs and **click** and drag to move this description so that it can be read easily. Release the mouse button, and the **Core Description** will be redrawn at its new location.

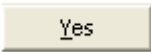
**For a general guideline refer to the log example on page 46.**

**Note:** If you wish to edit other **Core Description** properties, including the **Display Scale**, make the necessary changes from within the **Annotation Builder** window, **click** on the **Save** button, and the **Core Description** will be changed accordingly.


## Deleting Core Descriptions

- 1.) **Right click** on the red dot overlying the **Core Description** you wish to delete to activate the pop-up menu and **select Delete**.


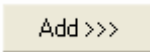
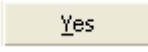



- 2.) Click on the  button in the **Delete** confirmation window.
- 3.) Press the **Esc** key on the keyboard to exit from the **Annotation Builder** window.

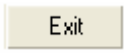
## Adding a Core Rate curve layer to the log

- 1.) Under the **Options** menu, click on **Log Configuration Builder** or click on the  **Log Configuration Builder** button on the **Toolbar** to activate the **Log Configuration Builder** window.
- 2.) On the **left side of the Log configuration builder** scroll down and highlight or click on the **Generic Curve** track.


This track has all of the curves available to our users except for mud gas curves which are in the Mudlogs. You can change names of any of the curve layers to represent any curve you wish but in our case all we have to do is follow step 2.

- 3.) Click on the **Core Rate** layer in the layers portion of the window on the lower left side of the builder to highlight it. Also, notice the Layers Radio button  on the left side gets activated.
- 4.) On the **right side (Active Log)** of the **Log Configuration Builder** window, click on the **Drilling Rate** track to highlight it. This is the track we want to add the Core Rate layer to.
- 5.) Click on the  button and you will be prompted with the following system message, **“Do you want to ADD the selected (layer) from the available log to the active log?”** Click on the  button.
- 6.) This will activate a **Get Name** window with **“Core Rate”** as the name in the **New Layer Name** field. Click on the  button and the **Core Rate** layer will then be added to the **Drilling Rate** track.

**Note:** The **Core Rate** curve has not yet been associated with the **Core Rate** layer. This will be done when the **Add Curve** window has been correctly filled in.

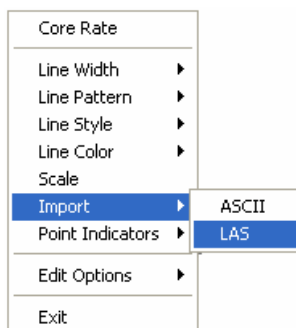
- 1.) Click on the  button to return to the log and the log will be initialized with the new layer, which in turn will generate an **Add Curve** window.

- **The Add Curve window...**

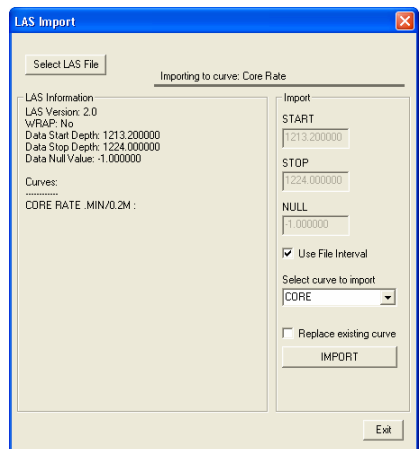
- 1.) Make sure the unit in the **Curve Units** field is correct (in this case it will be **min/0.2m**). If not, then please **select min/0.2m** from the **Curve Units** drop box field.
- 2.) Make sure **m** is in the **Depth Units** drop box field.
- 3.) Make sure the **Null Value** field is **-1**.
- 4.) Make sure the **Depth Interval** is **0** and **0** indicating the present curve scale is applicable to any depth on the log.
- 5.) Make sure the **Curve Scale** field values (**Left / Bottom** and **Right / Top**) to **0** and **10**
- 6.) Make sure the **Backup Scale** drop box field is **Straight Shift**.
- 7.) Make sure the **Grid type** drop box field is **Linear**.
- 8.) Click on the  button to add the curve layer to the Drill Rate Track.


### Importing an LAS Core Rate Curve

- 1.) Click on the **Drill Rate** track to make it active. You will notice a green trace around the outside of the track if done correctly.
- 2.) Use the drop down arrow in the **Layer Selection List** field (located at the far left side of the **Selection bar**), to display a list of the layers in the **Drilling Rate** track.
- 3.) **Select** the **Core Rate** layer to make it the active layer and the **Layer Selection List** will close automatically after you have made your selection.
- 4.) **Right click** on the **Core Rate layer** to activate a pop up menu shown below for the Core Rate Curve layer.



- 5.) **Select Import** from the pop-up menu to activate a pop out menu and **select LAS**. This will activate the LAS Import Window shown on the next page.



- 6.) Click on the **Select LAS File** button. This will activate the Open LAS File window and locate the **“Metric Core Rate Curve.las”** in the Powersuite\_V8 / System folder.
- 7.) After locating the Drive and Directory where the **“Metric Core Rate Curve.las”** file is the user must **select** the file by **double clicking** on the file name or **clicking on it once** and **clicking on the**  **button**. This will bring the file header into the LAS Import window.
- 8.) Click on the **Select Curve to Import drop box** and **select the Core curve**.
- 9.) Click on the **IMPORT** button. The curve will import and the window will disappear leaving the core rate curve on the layer.

• **Adding the Core Rate Curve Manually**

- 1.) **Double Click** on the **Core Rate** layer to bring up the **Curve Editor** window for the **Core Rate** curve.
- 2.) In the **Curve Editor** window, change the **Auto Depth Increment** field value to **0.2**.
- 3.) Enter the values found on the following page into the **Depth (m)** and **Value (min/m)** fields, respectively.

**Note:** After the first value has been entered into the **Depth (m)** field, the **Curve Editor** window automatically performs each subsequent increment, according to the value placed in the **Auto Depth Increment** field. Consequently, the only values you need to enter manually, after the first entry, are the **Value (min/m)** field values.

1213.2	7.0	1216.0	6.5	1218.8	2.4	1221.6	3.0
1213.4	7.0	1216.2	6.5	1219.0	2.4	1221.8	3.0
1213.6	6.0	1216.4	6.5	1219.2	2.4	1222.0	2.5
1213.8	6.0	1216.6	6.5	1219.4	2.2	1222.2	2.5
1214.0	5.0	1216.8	7.0	1219.6	5.0	1222.4	2.2
1214.2	5.0	1217.0	7.0	1219.8	6.0	1222.6	2.2
1214.4	5.5	1217.2	7.0	1220.0	6.0	1222.8	2.1
1214.6	5.5	1217.4	6.7	1220.2	6.5	1223.0	2.1
1214.8	5.5	1217.6	6.7	1220.4	6.5	1223.2	2.1
1215.0	6.0	1217.8	6.5	1220.6	6.0	1223.4	8.5
1215.2	6.0	1218.0	6.5	1220.8	6.0	1223.6	10.0
1215.4	7.0	1218.2	6.5	1221.0	5.0	1223.8	10.0
1215.6	7.0	1218.4	6.5	1221.2	5.0	1224.0	12.0
1215.8	7.0	1218.6	2.0	1221.4	5.0		

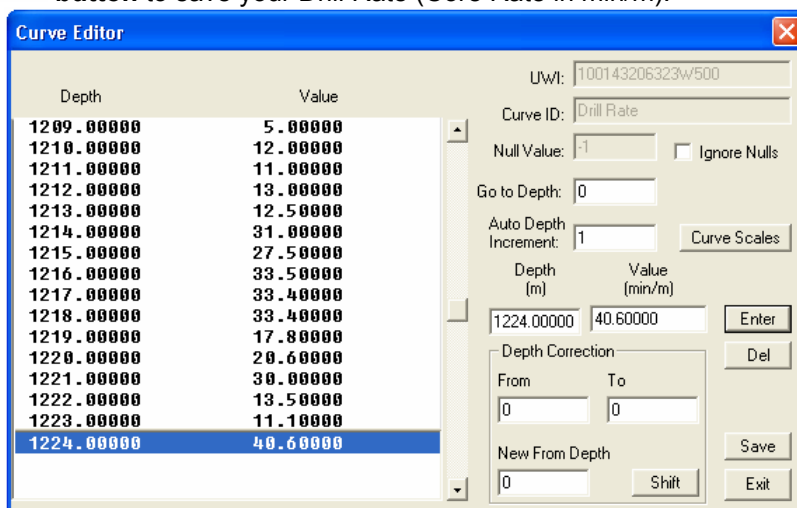
**\*\*Remember to save your work before you exit from the Curve Editor window.\*\***

### Adding Coring Times to the existing Drill Rate curve

- 1.) Select the **Drill Rate** curve layer from the **Layer Selection List** field to make **Drill Rate** the active layer.
- 2.) **Double click** on the **Drilling Rate** track to bring up the **Curve Editor** window for the **Drill Rate** curve layer.
- 3.) Please enter the following values into the **Curve Editor** window.

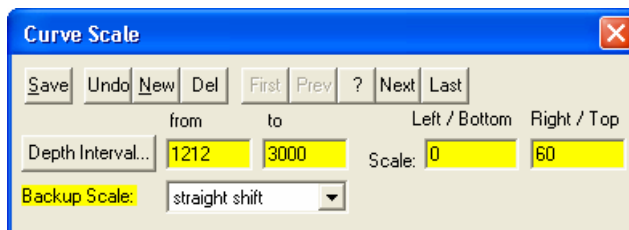
1214	31	1220	20.6
1215	27.5	1221	30
1216	33.5	1222	13.5
1217	33.4	1223	11.1
1218	33.4	1224	40.6
1219	17.8		

- 4.) Click on the **Save** button to save your Drill Rate (Core Rate in min/m).



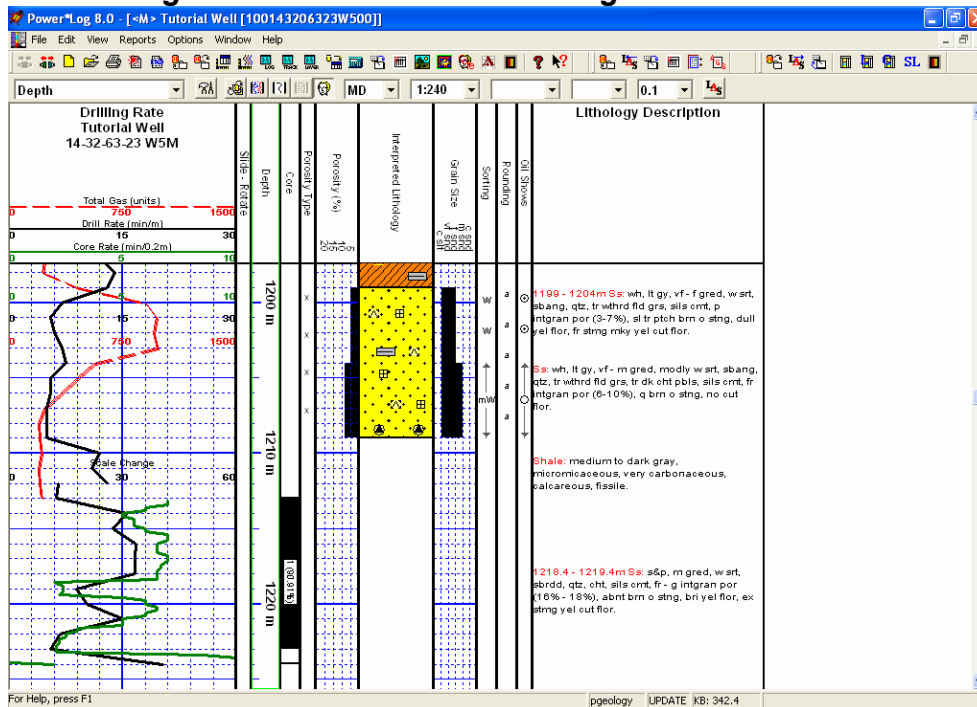
### Changing Curve Scales in the Curve Editor window

- 1.) Click on the **Curve Scales** button in the Curve Editor window. This will activate a Curve Scale window. **We will be changing scales in our case at 1212m.**
- 2.) **Type** in a different From Depth Interval changing the **0** to **1212** and then **click** on the **Save** Button. This will activate a System message stating Record Saved Successfully.
- 3.) Click on **Start New Record** button. This will clear the window.
- 4.) **Type** in **1212** in the **from depth** interval field, **tab**, **Type** **3000** in the **to depth** interval field, **tab**, **Type** in **0** in the **left / bottom scale** field, **Type** in **60** in the **right / top scale** field, **select** **strait shift** from the **Backup Scale** drop box.

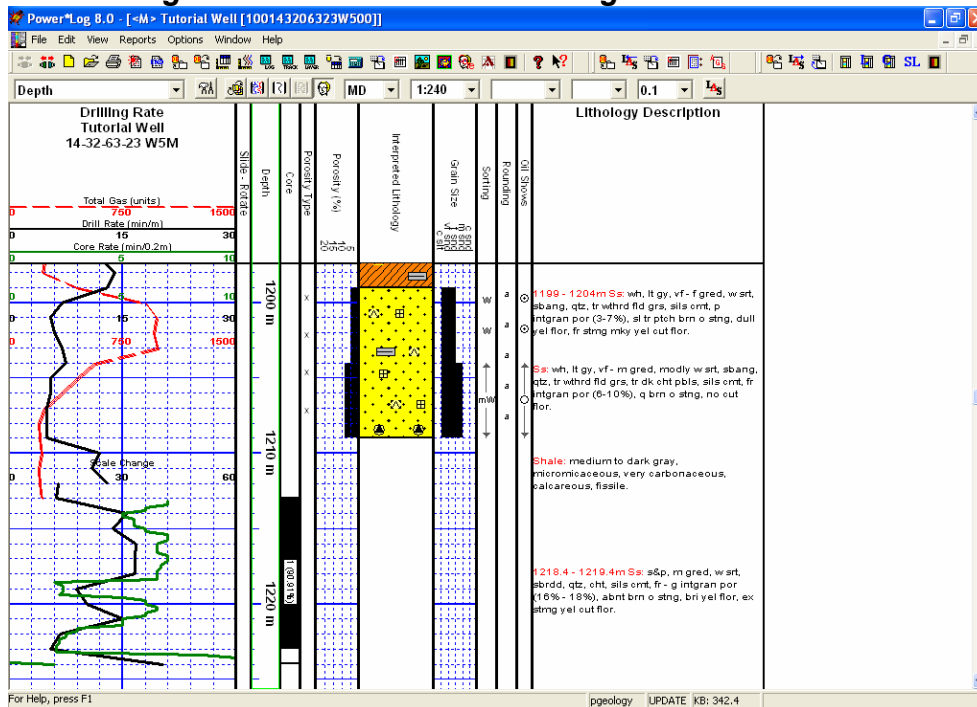


- 5.) Click on the **Save** button and then select **Exit** from the ensuing Record Saved Successfully message box.
- 6.) Press the **Esc** key on the keyboard or Click on the **Exit** button in the Curve Editor window to exit from the **Curve Editor** window. This will return you to the main log and you will now be able to view your drill rate additions and the change of scale.

**\*\*Your log should now look like the log below at 1:240 scale.\*\***



**\*\*Your log should now look like the log below at 1:120 scale.\*\***



## Adding a Formation Top

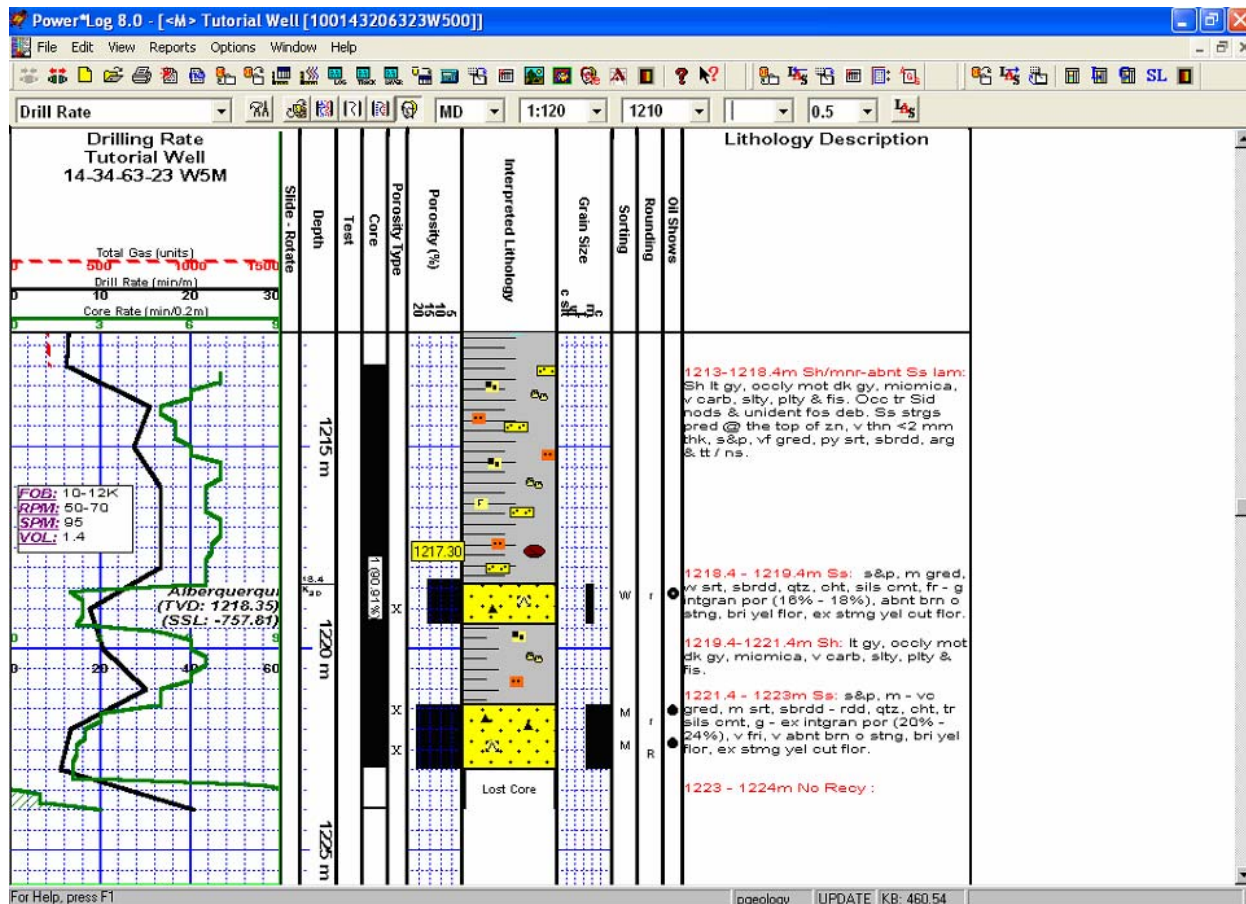
- 1.) Click on **Formation**, under **Reports**, to activate the **Well Formation** window.

The screenshot shows the 'Well Formation' dialog box with the following details:

- Buttons:** Save, Undo, New, Del, First, Prev, ?, Next, Last, K.B., Ground, Casing Flange, Alignment
- Fields:** Short (s), Long (Santorini), Boundary Type: conf [conformable], Formation... (ab), Long Name (Alberquerqui), Fault Type, Member, Seq#, Subsea: -757.81, Long Name Display Depth
- Dropdowns:** Era (Mesozoic), Series (Lower), Period (K [Cretaceous]), Stage (Santonian)
- Input Fields:** Age: 84 million years, Thickness: 23, Prognosis: 1216, Sample: 218.4, Log, Sample Top (MD): 1218.35
- Buttons:** Calculate Thickness, Samples, To Long Desc
- Text Area:** Evaluation: The Alberquerqui consists of Sandstone with Minor Shale beds. The Sandstones are predominately salt and pepper, medium to very coarse grained, medium sorted, subrounded to rounded, quartz, chert, trace siliceous cement, good to excellent intergranular porosity (20% to 24%), very friable, very abundant brown oil staining, bright yellow fluorescence, excellent streaming yellow cut fluorescence.
- Text Area:** Conclusion: The Sandstone exhibit good shows and excellent porosity development. This would be a zone of much economic interest and should be further evaluated on downhole wireline logs.

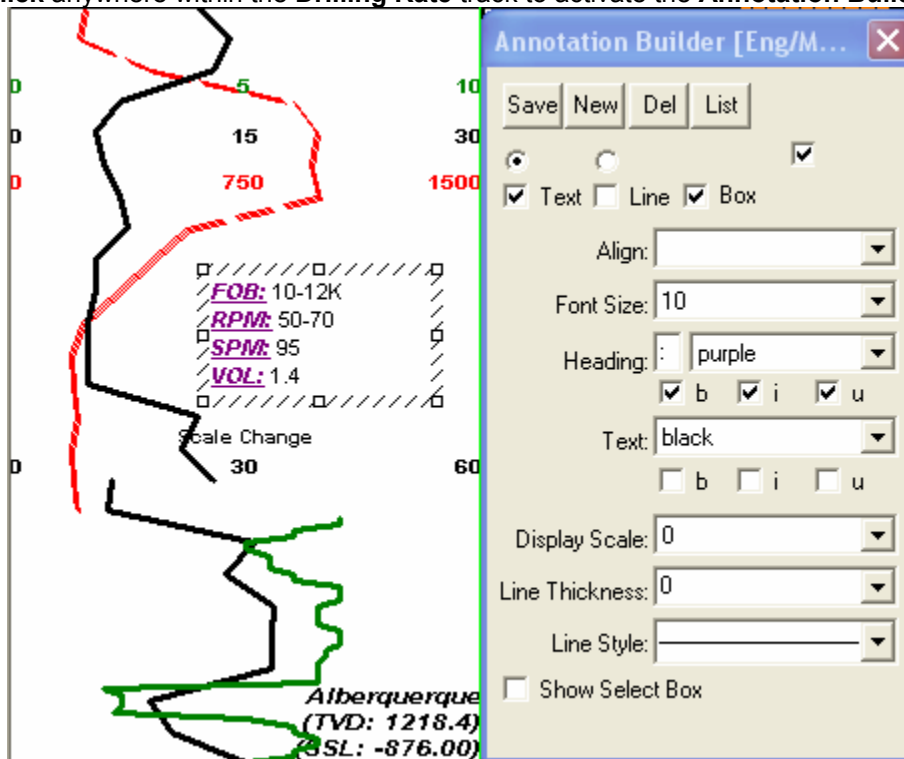
- 2.) Type **ab** into the **Formation Short** name field, **tab** and Type **Alberquerqui** into the **Formation Long Name** field, select **Mesozoic** from the **Era Drop down box**, select **Lower** from the **Series Drop down box**, select **K [Cretaceous]** from the **Period Drop down box**, and select **Santonian** from the **Stage Drop down box**.
- 3.) Type in **1216** in the **Prognosis TVD Top** field, **tab**, type **1218.4** in the **Sample Top (MD)** field, **tab** and Type **1218.35** in the **Sample Top (TVD)** field.
- 4.) Click on the **Save** button and select **Exit** from the ensuing **Shortcut Options** window.

Draw the Interpreted Lithology (Please refer to the section on Drawing Interpreted Lithology earlier in this tutorial), for the Core Descriptions, that you have already created. Your Log should look fairly similar to the log illustrated in the log below. To draw Lithology with the accuracy that was described in the core descriptions you will want to change the accuracy of your mouse pointer or the screen scale accuracy to 0.2m. To do this click on View menu selection, select screen scale accuracy and select 0.2 from the pop-out menu.



## Adding Annotations

- 1.) Click on the **Drilling Rate** track to make it active (highlighted in green).
- 2.) Select **Eng - Mud Parameters**, as your active layer, from the **Layer Selection List** field.
- 3.) **Double click** anywhere within the **Drilling Rate** track to activate the **Annotation Builder** window.



- 4.) Click on the **New** button to clear the **Annotation Builder** window and prepare it for the entry of a new **Annotation**.
- 5.) **Click and drag an area with the left mouse button depressed on the layer** to define where the annotation will be viewed.
- 6.) **Type** the following into the text field in the annotation layer:
 



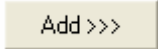
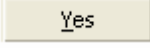
**FOB: 10-12K**  
**RPM: 50-70**  
**SPM: 95**  
**VOL: 1.4**
- 7.) If you wish to modify the **Annotation** further, you can use the **Heading, Color, Bold, Italicize, and Underline** fields to modify the appearance of the **Annotation** header and/or text. **Click on the Bold check box** ( **b**) to bold the **Annotation** header. **Click on the Italic check box** ( **i**) to italicize the **Annotation** header. **Click on the Underline check box** ( **u**) can be used to underline the **Annotation** header. **Click on the Color drop box and select Purple**.
- 8.) **Click on the Box check box** () in the **Annotation Builder** window.

**Alignment:** A **Clear or Blank, Left, Center, or Right** alignment can be selected for the **Annotation** by **right clicking** once anywhere within the **Annotation** layer to activate the pop-up menu and then selecting **Alignment** followed by either **Blank (No alignment, where the original box was drawn), Left, Center, or Right**.


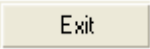
**Note:** Selecting a **Clear or blank Alignment** enables the user to place their **Annotation(s)** anywhere in the **Annotation** layer. Also, keep in mind that if the **Alignment** of the **Annotation** is modified after it was originally drawn, then its red dot will remain where the **Annotation** was originally drawn.

- 8.) Click on the  button

### Adding a Curve Fill layer to an existing log




- 1.) Click on **Log Configuration Builder**, under **Options**, or use the **Log Configuration Builder**  button on the **Toolbar** to activate the **Log Configuration Builder** window.
- 2.) On the left side of the window, click on the **Curve fill track** containing the Curve fill layer.
- 3.) Click on the **Curve Fill Layer**, that you wish to add to your log, within the **Layers** section on the left side of the **Log Configuration Builder** window. You should notice the  **Layers** radio button become activated
- 4.) On the right side of the window, **highlight** the **Drill Rate** track so that you add the selected Curve Fill layer to this track.
- 5.) Click on the  button to add the selected layer to the track on your log and the following system message will be activated, "**Do you want to ADD the selected <LAYER> from the available log to the active log?**"
- 6.) Click on the  button to activate the **Get Name** window.
- 7.) You now have the option of either renaming the layer or simply leaving it with its original name. **Type** in **ROP/TG Curve Fill**.

**Note:** Two layers cannot share the same name. Accordingly, no layer will be added to your track if they share the same name as a layer that already exists on the active(your) track.

- 8.) Click on the  button to add the layer to your log and place its name in the active **Layers** list on the right side of the **Log Configuration Builder** window.
- 9.) Click on the  button to get out of the Log Configuration Builder Window.

### Setting up the (2) Two Curve Fill options

Once the layer has been added to your log the user can now utilize the curve fill layer.

- 1.) To set the Curve Fill Options the user must first make the Curve Fill Layer active. To do so the user must **Click** on the **Drill Rate Track** containing the Curve Fill layer and then selecting the **ROP/TG Curve Fill** layer from the **Layer Selection List** field at the far left of the **Selection Bar**.
- 2.) **Double click** anywhere within the **Curve Fill** or layer to activate the **Curve Fill Options** window. An example is shown on the next page.
- 3.) Click on the  button. This will activate a list of curves associated with this well.
- 4.) Click on the **Drill Rate** and then click on the  button or **double click** on the **Drill Rate Curve**. You will now view the curve name below the  button.

5.) Click on the **Set SecondaryCurve** button. This will activate a list of curves associated with this well.

6.) Click on the **Total Gas Curve** and then click on the **Select** button or double click on the **Total Gas Curve**. You will now view the curve name below the **Set SecondaryCurve** button.

**Curve Options** Portion of the Window. This information is pertaining to the Main Curve and its Curve attributes.

7.) Click on the **Pattern Type** down arrow and select the correct **curve pattern** for the main curve. The Drill Rate Curve is defaulted to PtoP (Point to Point).

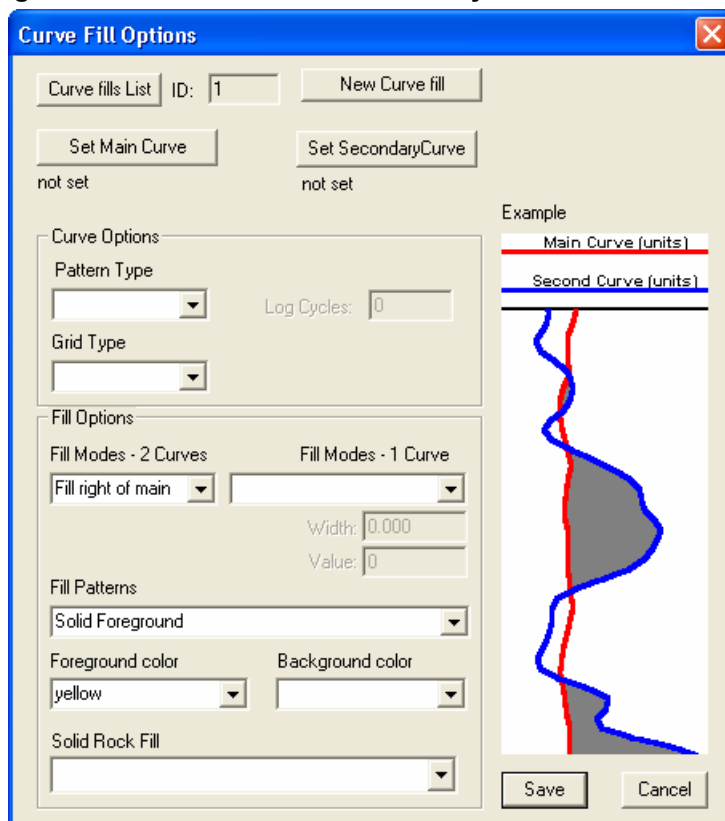
8.) Click on the **Grid Type** down arrow and select the correct **curve grid type** for the main curve. The Drill Rate Curve is defaulted to Linear.

**Fill Options** Portion of the Window (2-Two Curves)

9.) Click on the **Fill Modes – 2 Curve** down arrow and select the **Fill Right of Main**.

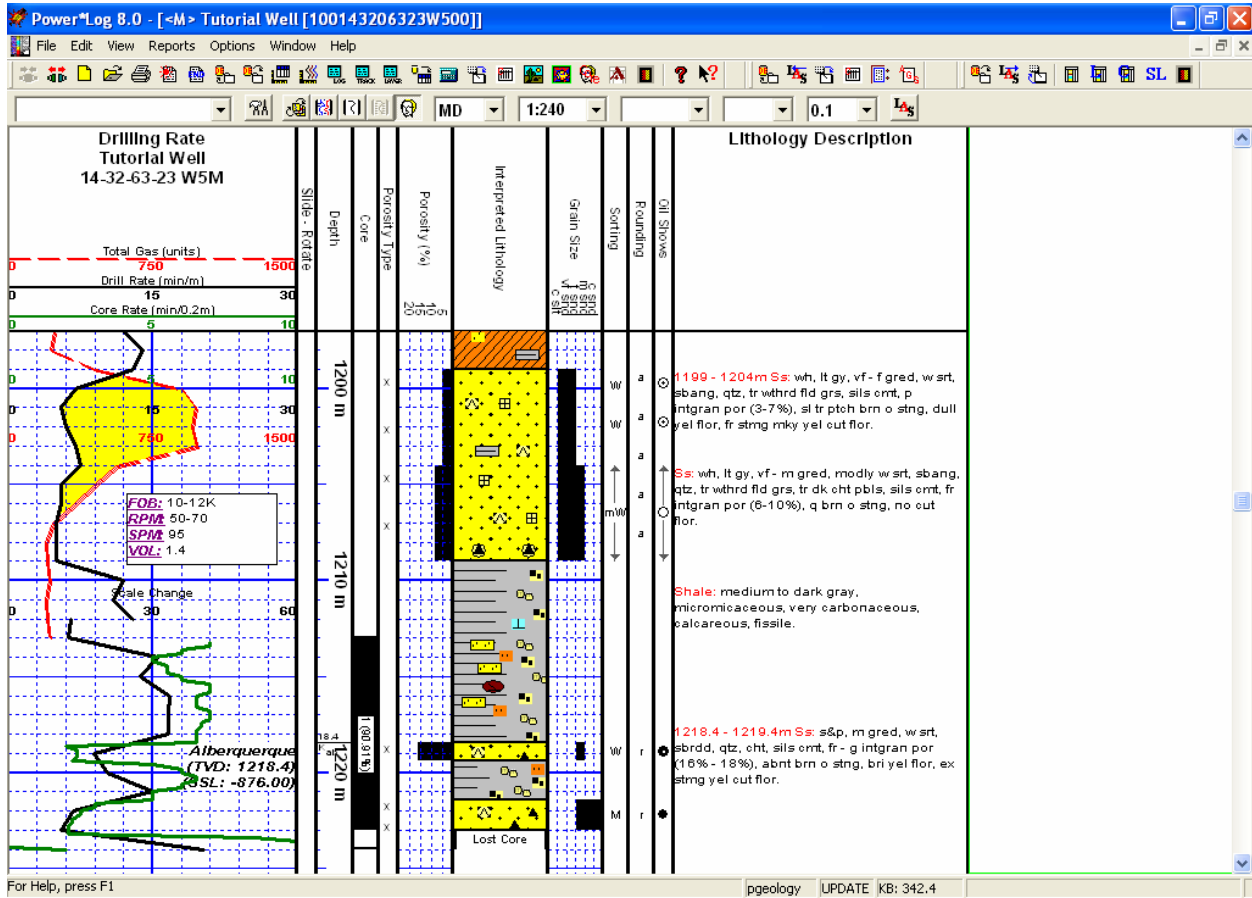
10.) Click on the **Fill Patterns** down arrow and select **solid foreground**.

11.) Click on the **Foreground Color** down arrow and select **yellow**.




12.) Click on the **Save** button. The Curve Fill Options window will close and the changes you have made will be shown on the layer.

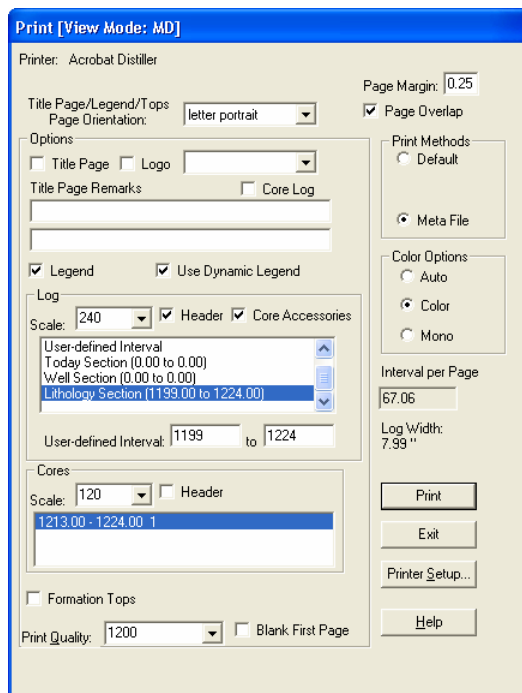
\*\*\* Your Log should now look like the picture shown below\*\*\*



## How to Print the Log

- 1.) Under the **File** menu, **click on Print Log** or **click on the Print  button on the Toolbar** to activate the **Print Log** window.

**Note:** The Title bar and all depths associated with the Print Log window are defaulted to the Depth View that Power\*Core are in at the time of the activation of the Print Log window.



- 2.) **Select the letter portrait** paper orientation from the **Page Orientation drop box field** and the **Title Page, Legend, and Formation Tops** will automatically conform to the selected orientation.

**Note:** The letter or legal landscape or portrait settings selected from within the **Print Log** window will **NOT** override the paper orientation settings selected in the printer's **Properties** window. Therefore, you must also modify the paper orientation settings in your printer's **Properties** window to letter or legal landscape.

- 3.) Activate the **Legend** check box () , if you wish to have a striplog legend printed out.
- 4.) Activate the **Dynamic Legend** check box () , if you wish to have the legend reflect only the symbols printed on the log or core portions of the printed intervals defined in the log and core portions of the print log window. Leave the Dynamic Legend unchecked if you wish to print out the entire list of symbols.

### In the Log portion of the Print Log window

- 1.) **Select 1:240** from the scale drop box for the log to be printed out at.
- 2.) **Click** to activate the **Header** check box () to print the track headers on the log.
- 3.) **Click on Lithology Section** to highlight it in the printing options selection box.

**Note:** The log itself must be displayed in whatever depth view you wish to print before you activate the print log window. To change the log to the desired format refer to depth view under the view pull down menu.

**Page Margin** The page margin field is available, primarily, when you are printing to Adobe Acrobat writer. When a numerical value in inches is typed into this field it will initiate a top and left margin for the templates (Title Page, Legend and Formation Tops) as well as a left margin for the main log.

**Page Overlap** Activate the **Page Overlap** check box () if you are printing on single sheets. This will force the printer to include an additional 1/4 inch of the log at the top and bottom of each page, so that you can cut-and-paste pages manually, if you so desire.

#### Print Methods...

**Default** Activating the **Default** radio button () forces Power\*Log / Curve / Core to use a **raster or bitmap graphic printing method**. This printing method is generally used with Laser printers but not exclusively so.

**Meta File** Activating the **Meta File** radio button () forces Power\*Log / Curve / Core to use the **meta file technology printing method**. This printing method was developed for the newer models of printers on the market today as well as using the Adobe Acrobat Distiller or pdf printing technology.

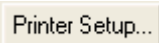
#### Color Options...

**Auto** Activating the Auto radio button () forces Power\*Log / Curve / Core to use the settings from the printer driver to printout the log.


**Color** Activating the Color radio button () forces Power\*Log / Curve / Core to override the printer driver settings and consequently Power\*Log / Curve / Core assumes that you are using a color printer.

**Mono** Activating the Mono radio button () forces Power\*Log / Curve / Core to override the printer driver settings and consequently Power\*Log / Curve / Core assumes that you are using a monochrome (black and white) printer.

**Interval per page** field indicates how many meters of log will fit on a page of selected paper size and orientation selected in the setup as well as what log scale you are printing at. This will help indicate to the user how many pages will be required by the print job.

- 1.) **Click** on the Core Section **1213-1224** to highlight it.
- 2.) **Select** the Core log scale of 1:120 and the Core Header check box ()
- 3.) **Click** on the  button to activate the **Print Setup** window and confirm that the correct printer settings are in effect.

**Note:** If you are printing out logs in color, you must activate the **Diffusion** or **Error Diffusion** option normally found under **Graphics** in the **Properties** window for most printers.

- 4.) When you are ready to print your log, **click** on the  button.

**Note:** If you do exit from the **Print Log** window, you will be asked if you wish to save the print settings. If you **click** on **Yes**, the program will remember every setting that you made to the **Print Log** window and then will default to those settings the next time you enter the **Print Log** window.

***This concludes the Power\*Log Tutorial. If you need help with specific functions or operations, please use the Table of Contents in the Power\*Suite User Manual to find the desired topic or use the Search function built into the On-line Help.***