



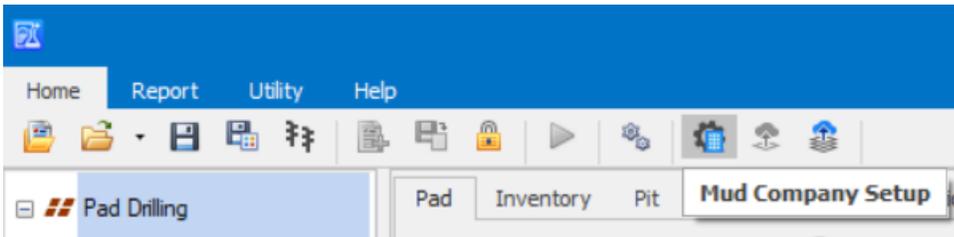
Initial Setup Guide: MUDPRO+ (Next Generation)

This is intended to help a mud engineer switching from the MUDPRO and old MUDPRO+ software programs to the next generation MUDPRO+ software (version 4.0.0 or later). The quick start guide is not intended to be comprehensive, but will address the most common challenges to adopting to the next generation software. For other general questions on how to use the new software, please contact your own internal technical personnel or your company's PVI sales representative.

I. Mud Company Setup:

The primary thing that will need to be done when a company begins using the next generation version of MUDPRO+ (v4.0.0 and later) is to set up their company using the Mud Company Setup feature.

The icon  is available at the top of the input screen for initial setup and updating:



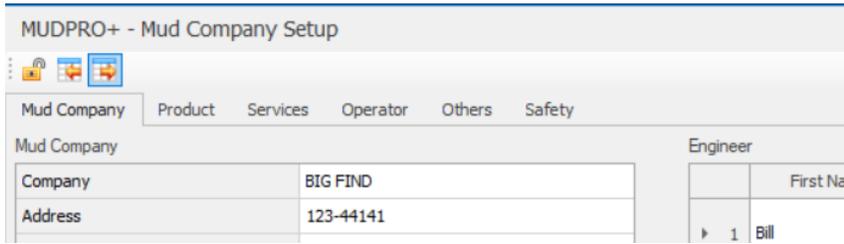
Initial items:

- 1) One person can set up the mud company, then distribute to the mud engineers
- 2) The mud company has a password, so it can be controlled by the central office. If control is not desired, the password can be sent to the field personnel

Import  and export  buttons are located at the top of the Mud Company Setup screen:



Mud Company Setup Layout:



MUDPRO+ - Mud Company Setup

Mud Company | Product | Services | Operator | Others | Safety

Mud Company		Engineer	
Company	BIG FIND		First Name
Address	123-44141	1	Bill

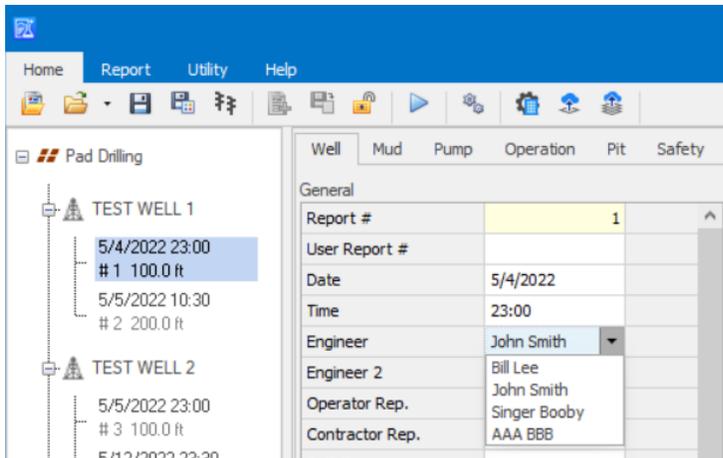
II. Engineers Tab:

The engineers can be added in a controlled fashion by a central person/group, then sent out to all of the field personnel. Or the password can be distributed to field personnel so that they can add their own names and back to backs or drive by personnel.



	First Name	Last Name	Cell	Office	E-mail	Photo
1	Bill	Lee	8325659545	Houston	Blee@bigf.com	
2	John	Smith	7135506646	Houston	Js@bigf.com	
3	Singer	Booby	2815560202	houston	SBO@bigf.com	
4	AAA	BBB	7780012321	Phynics	ab@bigf.com	

The engineers included in the Mud Company Setup section will be available in a drop down on the daily reports:



Home | Report | Utility | Help

Well | Mud | Pump | Operation | Pit | Safety

General

Report #	1
User Report #	
Date	5/4/2022
Time	23:00
Engineer	John Smith
Engineer 2	Bill Lee
Operator Rep.	John Smith
Contractor Rep.	Singer Booby
	AAA BBB



III. Product Tab:

	Product	Code	SG	Unit		Group	Retail	Schedule ABC	xyz	abc	Schedule D	Schedule E	Schedule F	Sch
				Num	Class									
1	PARAGON MUL OW	PP01232	0.9	1.0	gal	Weight Mate...	100.0							
2	PARAGON MUL A1	PP01229	0.9	1.0	gal	Wetting agent	76.1							
3	PARAGON MUL P	PP01217	1.0	1.0	gal	Emulsifier	9.7							
4	PARAGON MUL S	PP01233	1.0	1.0	gal	Emulsifier	78.0							



Import master product list (from file)



Download master product list (from MudManager)



Edit schedule name



Product Group

When importing from a file, the master product list can be selected by searching on your computer for the .dat (or other) file. These can be imported into MUDPRO+ from MUDPRO and older MUDPRO+ versions. Additional product groups can also be added.

The 'Open' dialog shows the file 'MasterData.dat' (212 KB, DAT File) selected on the Desktop. The 'Product Group' dialog is open, showing a list of product groups including: 1 Air / Mist Product, 2 Alkalinity, 3 Common Chemical, 4 Dispersant / Deflocculant, 5 Emulsifier, 6 Filtration Control, 7 LCM - Coarse, 8 LCM - Fine, 9 Lubricant / Surfactant, 10 OBM Lost, 11 Oil Based, 12 Others, 13 Shale Inhibitor, 14 Viscofifer, 15 Wetting Agent. A note at the bottom states: '* Base Fluid and Weight Material are predefined in the program. They are excluded from this list.'

The MUDPRO interface shows a well log for 'TEST WELL 1' and 'TEST WELL 2'. The 'Consume Product' table is visible, showing a list of operations and their corresponding products and codes.

Description	Product	Code
1 Receive Product		
2 Consume Product		
3 Add Water		
4 Consume Product	DIESEL, GAL	
5	DIESEL, GAL - C	
6	BARITE 4.1, TON	
7	BARITE 4.1, TON - C	
8	BX, 5 GAL	
	CACL, 50#	



IV. Services Tab:

The items in the Services tab can be brought over from a table (i.e. old MUDPRO+/MUDPRO program, Excel, etc.) using copy/paste.

Package	Package	Code	Unit	Price (\$)
1	Shrink Wrap	AAA	1	18.0
2	Pallets	BBB	1	18.0
3	Scale Ticket	CCC	1	18.0
4	Cap & Strap	DDD	1	35.0
5				
6				
7				
8				
9				
10				
11				

Services	Code	Unit	Price (\$)
1 Transportation	222	1	2.4
2 Bulk Tanks	4451	DDA	3.0
3 Forklift	WWWEQ1	1	45.0
4 Lost Oil Mud	1234	1	65.0
5 Tote Disposal	444	1	800.0
6 Drum Disposal	12321	CWT	0.5
7 Restocking	555	1	550.0
8 OBM Rental	66666	1	78.0
9			
10			
11			

V. Operator Tab:

The operator tab functions the same as the Engineer section of the Mud Company tab:

Company	Contact	Address	Phone	E-mail	Logo
1 Shell	John Smith	aaabbbccdd	123-456-7890	778905@shell.com	
2 Chevron	Bill Gin	1243114 aagb	123-456-7890	123-456-7890@chevron	
3					

Those operators then become available in the Pad tab at the Pad level:

MUDPRO+

Home Report Utility Help

Well

Pad Drilling

Pad Inventory Pit Pump SCE Formation Report Alert JSA

Location Land Offshore

Field/Block	Big Find
Rig	528
County/Parish/Offshore Area	Harris
State/Province	TX
Country	USA
Stock Point	HOUSTON
Phone	7139509088
Operator	Big Find
Operator Rep.	
Contractor	Shell Chevron

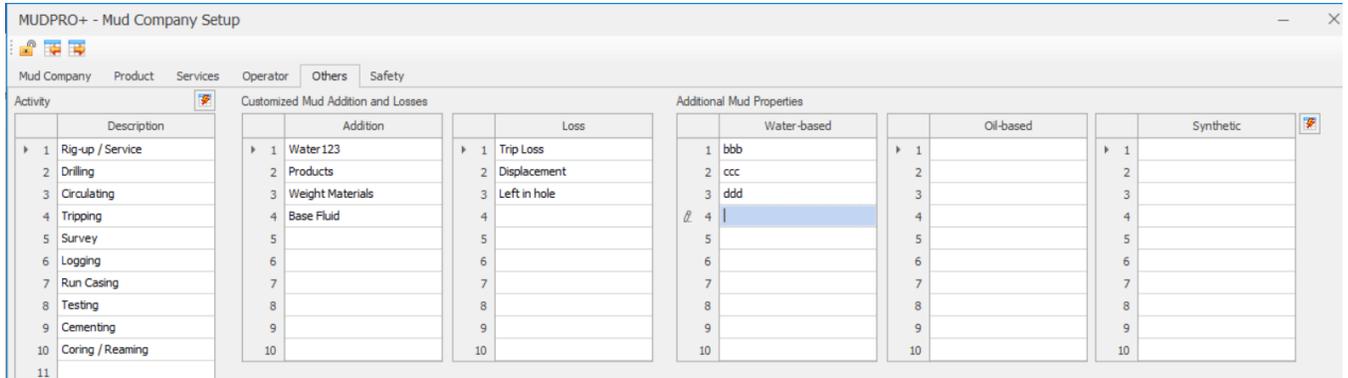
Big Find

Memo

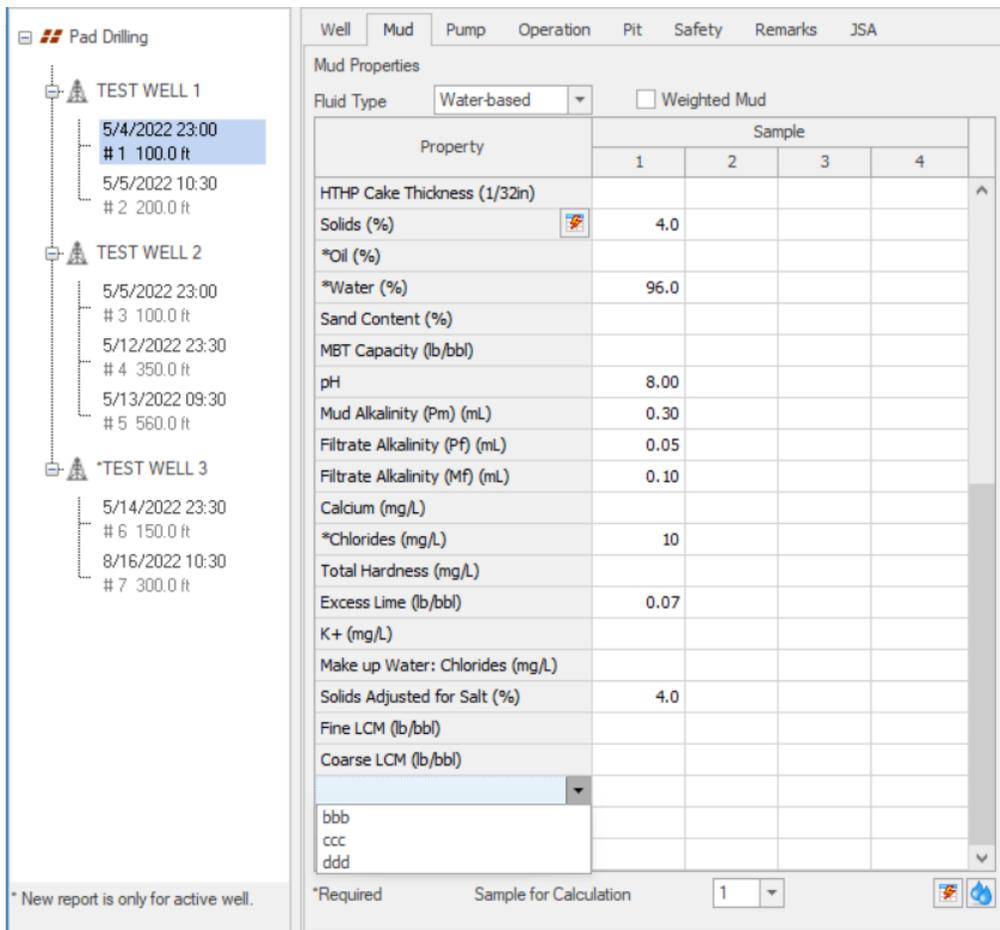


VI. Others Tab:

Additional mud properties can be added for each mud type, which will be available to select in the mud properties section of the daily reports.



The three additional mud properties for water-based mud systems added above are now available for that mud type in the daily reports, as shown below:





VII. Additional Items:

Inventory Held at the Pad Level:

Possibly the primary driver behind creating the next generation version of MUDPRO+ was the structural change that allows for pad drilling. One important thing to note is that the inventory is held at the pad level, allowing daily reports to pull from that single location as the rig slides back and forth between wells. There is no longer any need to transfer inventory between wells.

When moving from one pad to another, it is possible to transfer the final inventory from the completed pad to become the starting inventory on the next pad. This is done using the Inventory Pickup button located on the lower right of the Inventory tab at the Pad level:

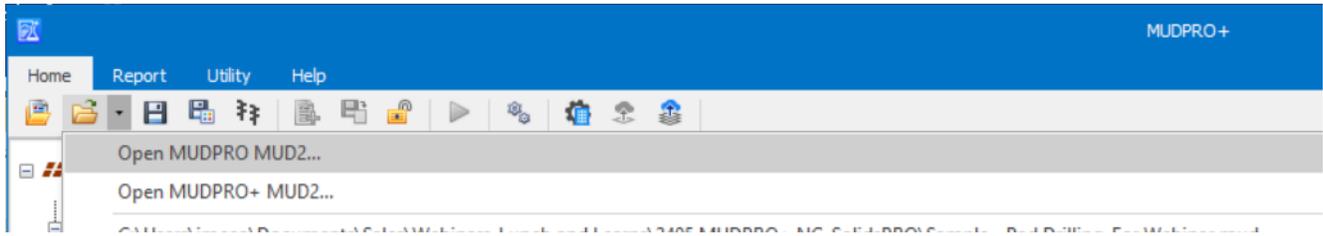
The screenshot displays the MUDPRO+ software interface. On the left, a navigation pane shows a tree view of well logs for TEST WELL 1, TEST WELL 2, and TEST WELL 3, with specific dates and depths listed. The main window is titled 'MUDPRO+' and has a menu bar with 'Home', 'Report', 'Utility', and 'Help'. Below the menu bar is a toolbar with various icons. The main content area is divided into tabs: 'Pad', 'Inventory', 'Pit', 'Pump', 'SCE', 'Formation', 'Report', 'Alert', and 'JSA'. The 'Inventory' tab is active, showing a table of products and services. The table has columns for Product, Code, SG, Unit, Price (\$), Initial, Group, and Vol. Addition. Below this table is a section for 'Pre-mixed Mud' with a table of descriptions, MW (ppg), Leasing Fee (\$/bbl), Mud Type, and Tax. At the bottom of the interface, there are input fields for 'Bulk Tank Setup Fee (\$)' and 'Tax Rate (%)', a radio button for 'Apply Changed Prices' (set to 'to All'), and an 'Inventory Pickup' button.

Product	Code	SG	Unit	Price (\$)	Initial	Group	Vol. Addition
1 DIESEL, GAL		0.78	1.00 gal	0.0	11269.00	Base Fluid	<input checked="" type="checkbox"/>
2 DIESEL, GAL - C		0.78	1.00 gal	1.8	100.00	Base Fluid	<input type="checkbox"/>
3 BARITE 4.1, TON		4.10	1.00 Ton	145.0	175.00	Weight Material	<input checked="" type="checkbox"/>
4 BARITE 4.1, TON - C		4.10	1.00 Ton	160.0	100.00	Weight Material	<input type="checkbox"/>
5 BX, 5 GAL		0.86	30.00 lb	0.0	100.00	Viscosifier	<input checked="" type="checkbox"/>
6 CACL, 50#		2.20	50.00 lb	0.0	270.00	Common chemical	<input checked="" type="checkbox"/>
7 VG - PLUS, 50#		1.60	50.00 lb	0.0	100.00	Viscosifier	<input checked="" type="checkbox"/>
8 GEL, 100#		2.60	100.00 lb	0.0	128.00	Viscosifier	<input checked="" type="checkbox"/>
9 LIME, 50#		2.20	50.00 lb	0.0	150.00	Alkalinity	<input checked="" type="checkbox"/>
10 PAC LV, 50#		1.59	50.00 lb	0.0	114.00	Filtration control	<input checked="" type="checkbox"/>

Description	MW (ppg)	Leasing Fee (\$/bbl)	Mud Type	Tax
1 Report 10 - Receive 9	15.20	10.0		<input type="checkbox"/>
2 Report 10 - Receive 10	15.20	10.0		<input type="checkbox"/>
3 Report 10 - Receive 11	15.20	12.0		<input type="checkbox"/>
4 Report 10 - Receive 12	15.20	12.0		<input type="checkbox"/>
5 Report 10 - Receive 13	15.20	15.0		<input type="checkbox"/>

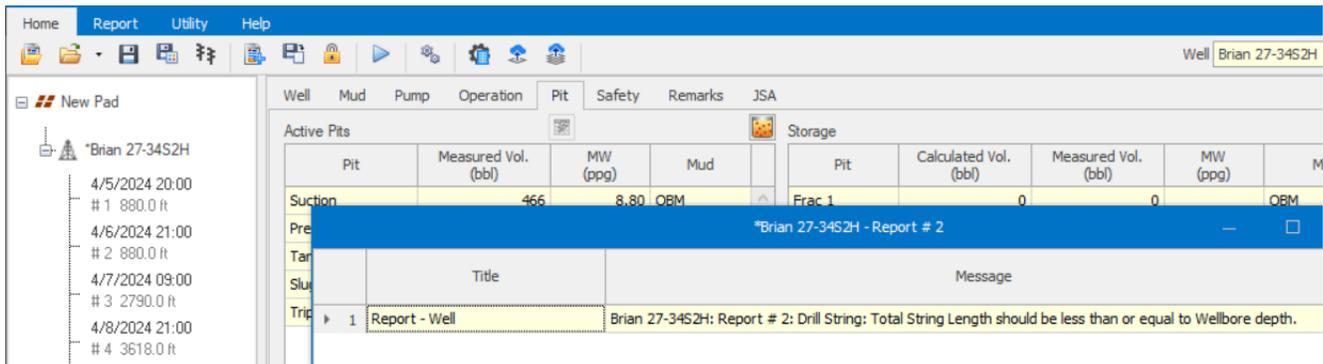
MUDPRO and 'old' MUDPRO+ files:

Old versions of the software can be opened in the next generation version (4.0.0 and later) of MUDPRO+. Simply click on the open folder icons' drop down menu:

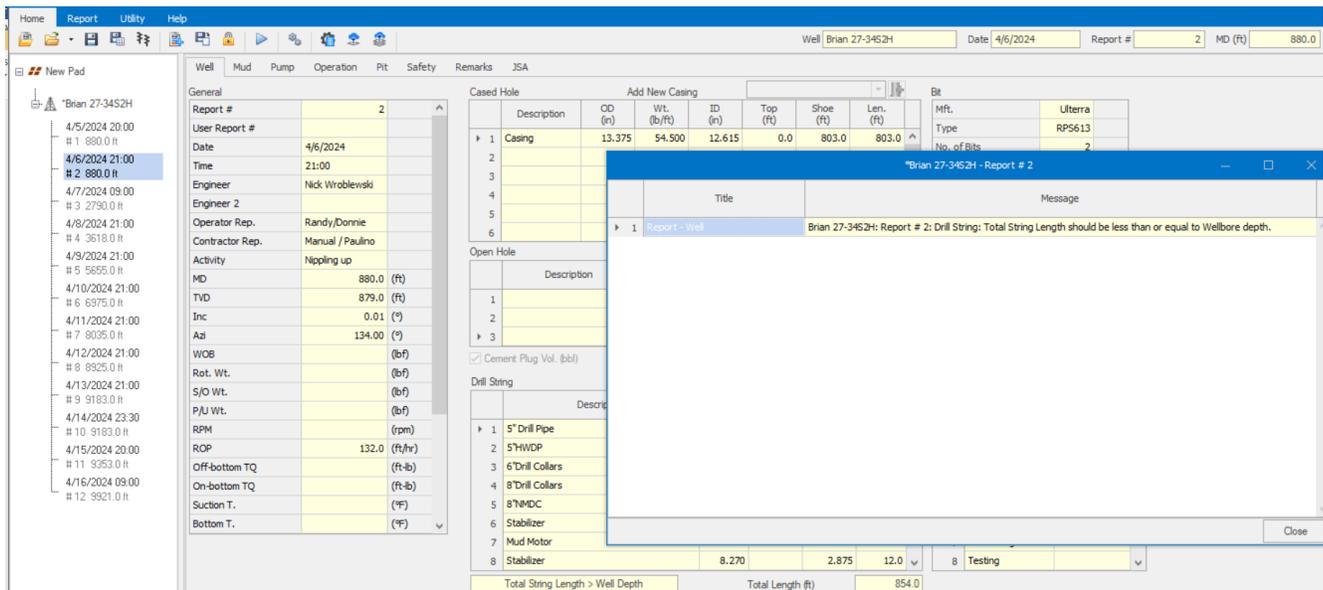


Note: because some of the data might not transfer correctly, or require some information be corrected or filled in, PVI recommends finishing any current well in the old software, then beginning to use the next generation MUDPRO+ when they start the next well/pad.

When old program files are loaded and corrections or additional information is needed, a popup box with error messages will appear. A new feature of MUDPRO+ is that when these error messages are double-clicked, the program will take the user directly to the section that needs attention. The error messages are also fairly detailed, which should assist with the process of correcting/adding any information that is needed.

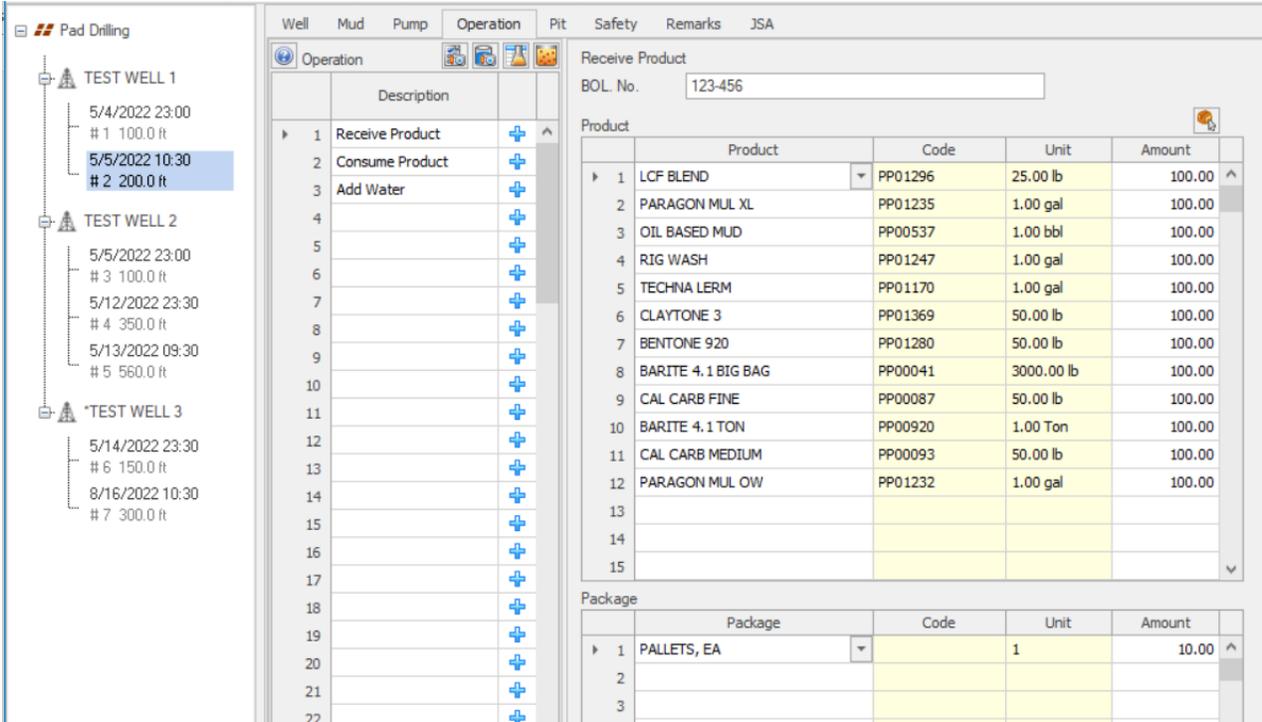


After double-clicking on the error message (row 1), MUDPRO+ takes us to the well tab on the appropriate daily report. Notice that the total length (bottom right) is 854 ft, while the cased hole depth is 803 ft and no open hole has been entered. This will need to be corrected before the program can calculate.



VIII. Operation Tab:

For MUDPRO users switching to MUDPRO+, the operations tab will be new:

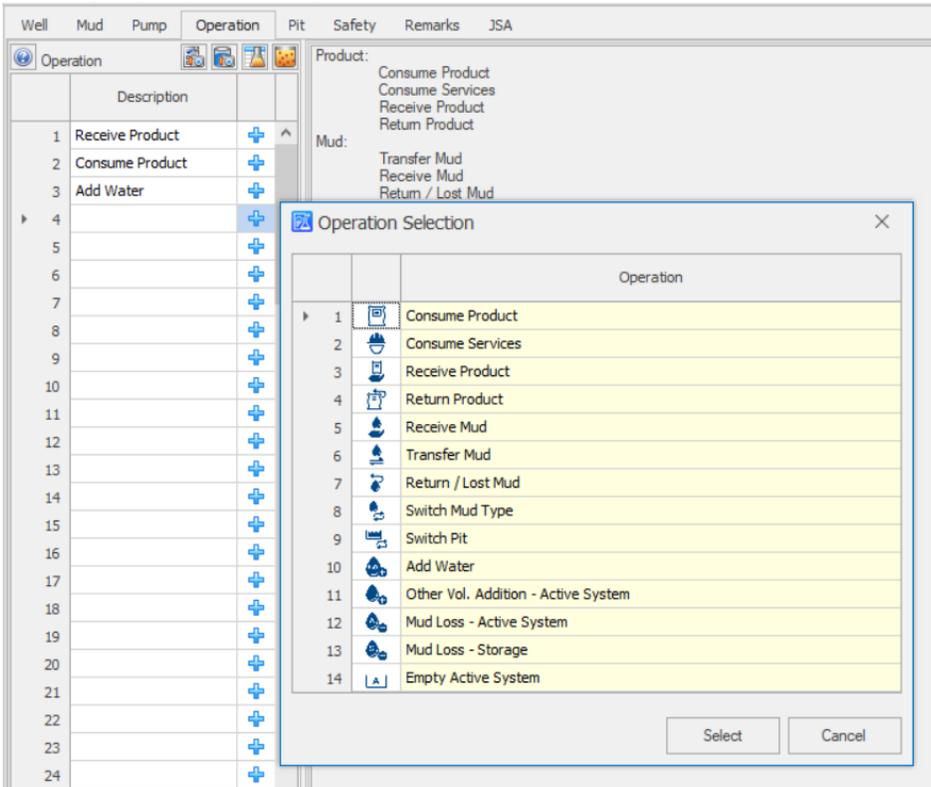


The screenshot displays the 'Operation' tab in the software. On the left, a well log shows three wells: TEST WELL 1 (100.0 ft), TEST WELL 2 (350.0 ft), and TEST WELL 3 (300.0 ft). The central 'Operation' table has columns for 'Description' and a plus sign icon. The right side shows a 'Receive Product' section with a 'BOL No.' of 123-456 and a table of products with columns for Product, Code, Unit, and Amount. Below that is a 'Package' table with columns for Package, Code, Unit, and Amount.

Product	Code	Unit	Amount
1 LCF BLEND	PP01296	25.00 lb	100.00
2 PARAGON MUL XL	PP01235	1.00 gal	100.00
3 OIL BASED MUD	PP00537	1.00 bbl	100.00
4 RIG WASH	PP01247	1.00 gal	100.00
5 TECHNA LERM	PP01170	1.00 gal	100.00
6 CLAYTONE 3	PP01369	50.00 lb	100.00
7 BENTONE 920	PP01280	50.00 lb	100.00
8 BARITE 4.1 BIG BAG	PP00041	3000.00 lb	100.00
9 CAL CARB FINE	PP00087	50.00 lb	100.00
10 BARITE 4.1 TON	PP00920	1.00 Ton	100.00
11 CAL CARB MEDIUM	PP00093	50.00 lb	100.00
12 PARAGON MUL OW	PP01232	1.00 gal	100.00
13			
14			
15			

Package	Code	Unit	Amount
1 PALLETS, EA		1	10.00
2			
3			

Instead of being able to type in the operations, they must be selected using the plus button next to the description column. The following menu will populate:



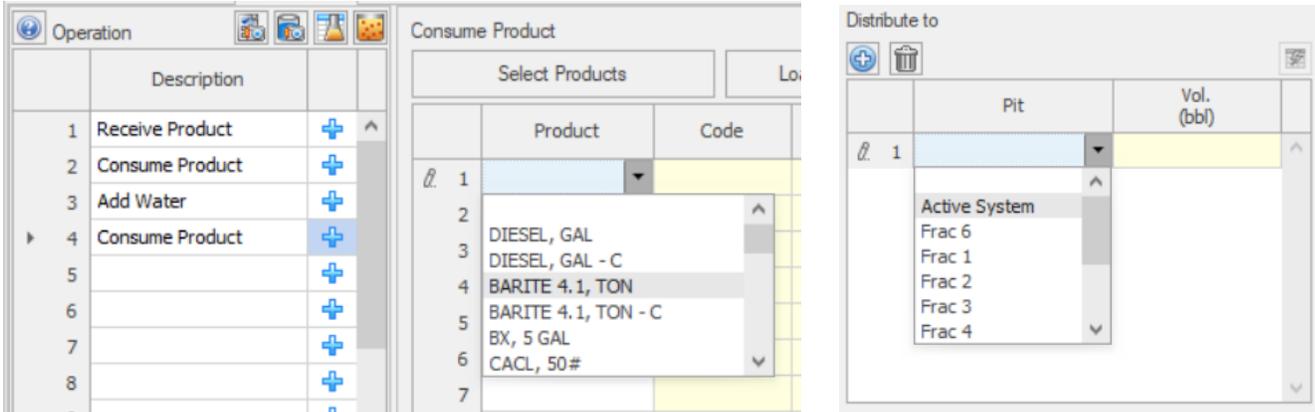
The screenshot shows the 'Operation Selection' dialog box. The dialog has a title bar and a close button. It contains a table with columns for 'Operation' and a plus sign icon. The operations listed are: Consume Product, Consume Services, Receive Product, Return Product, Receive Mud, Transfer Mud, Return / Lost Mud, Switch Mud Type, Switch Pit, Add Water, Other Vol. Addition - Active System, Mud Loss - Active System, Mud Loss - Storage, and Empty Active System. There are 'Select' and 'Cancel' buttons at the bottom.

Operation
1 Consume Product
2 Consume Services
3 Receive Product
4 Return Product
5 Receive Mud
6 Transfer Mud
7 Return / Lost Mud
8 Switch Mud Type
9 Switch Pit
10 Add Water
11 Other Vol. Addition - Active System
12 Mud Loss - Active System
13 Mud Loss - Storage
14 Empty Active System



Although this may take some getting used to, the process of consuming products, adding water, transferring mud, and switching the mud type is much faster and easier in the next generation version of MUDPRO+.

Below is the popup window for consuming products. Multiple products can be consumed together, and they can be sent to any additional tank/pit, in addition to being added to the active system. This allows for pre-built muds in storage that can then be added to the current mud system, with the appropriate end concentrations automatically calculated for the combined mud.



IX. Carrying Over Reports:

Carrying over reports functions much the same way that it has in the MUDPRO and old MUDPRO+ versions, though icons are now used instead of right-clicking the previous report.

 New report icon

 Carry over icon

 Options icon

Also of note are the automated carry over settings in the options menu. Mud properties and/or operations will not carry over unless the boxes are checked in the options popup window under the report section. If either of these boxes are checked, the prior days' mud properties and/or operations will populate in the new report identically from the previous day.

