STABILDRILL

Jar Placement Application
IntelliJar Training

INTRODUCTION

The purpose of this training material is to aid potential users and Stabil Drill's customers of Intellijar application, as available through company's website (see next page).

Application's link can be found here:

https://intellijar.stabildrill.com/

This free-to-use application, helps the end user enter details about planned BHA, along with drilling parameters and it calculates the best placement of the Stabil Drill's jar, within the specified BHA, either in tension (preferred) or compression.

Additional useful outputs are calculated to better assist the user in understanding specific drilling/jarring operations.

STABILIZERS

REAMERS

HOLE OPENERS

DRILL COLLARS

FISHING TOOLS

JAR & SHOCK SUBS

JARS & SHOCK SUBS

PROTECT YOUR DRILL STRING WITH THESE HIGH-PERFORMANCE SUBS DESIGNED SPECIFICALLY TO NEGATE TOOL DAMAGE AND ENABLE MAXIMUM SPEED.

Normal drilling operations can really put a beating on the drill string. That's where Stabil Drill shock comes in. These simple components are engineered to absorb downhole impacts and vibrations—drastically reducing their transmission to the rest of the drill string. The result is better protection and faster rate of penetration.

IntelliJar Application

SHOCK SUBS

Vibration is the enemy of your drill string. These heavy-duty subs prevent damage to critical drill string components such as drill collars, pipe and more—even helping protect surface equipment. And Stabil Drill can make and specify them to run in any formation type or temp.

DOWNLOAD SPEC SHEET

HYDRA HAMMER DRILLING JAR

When your drill string is stuck, you need a high-impact fix. The Hydra Hammer Drilling Jar is used to apply a mechanical impact on another downhole component—such as dislodging a stuck BHA. This hydraulic drilling jar is capable of jarring both upward and downward, and can be configured to deliver an impact load in a variety of directions and magnitudes to get you back on track.

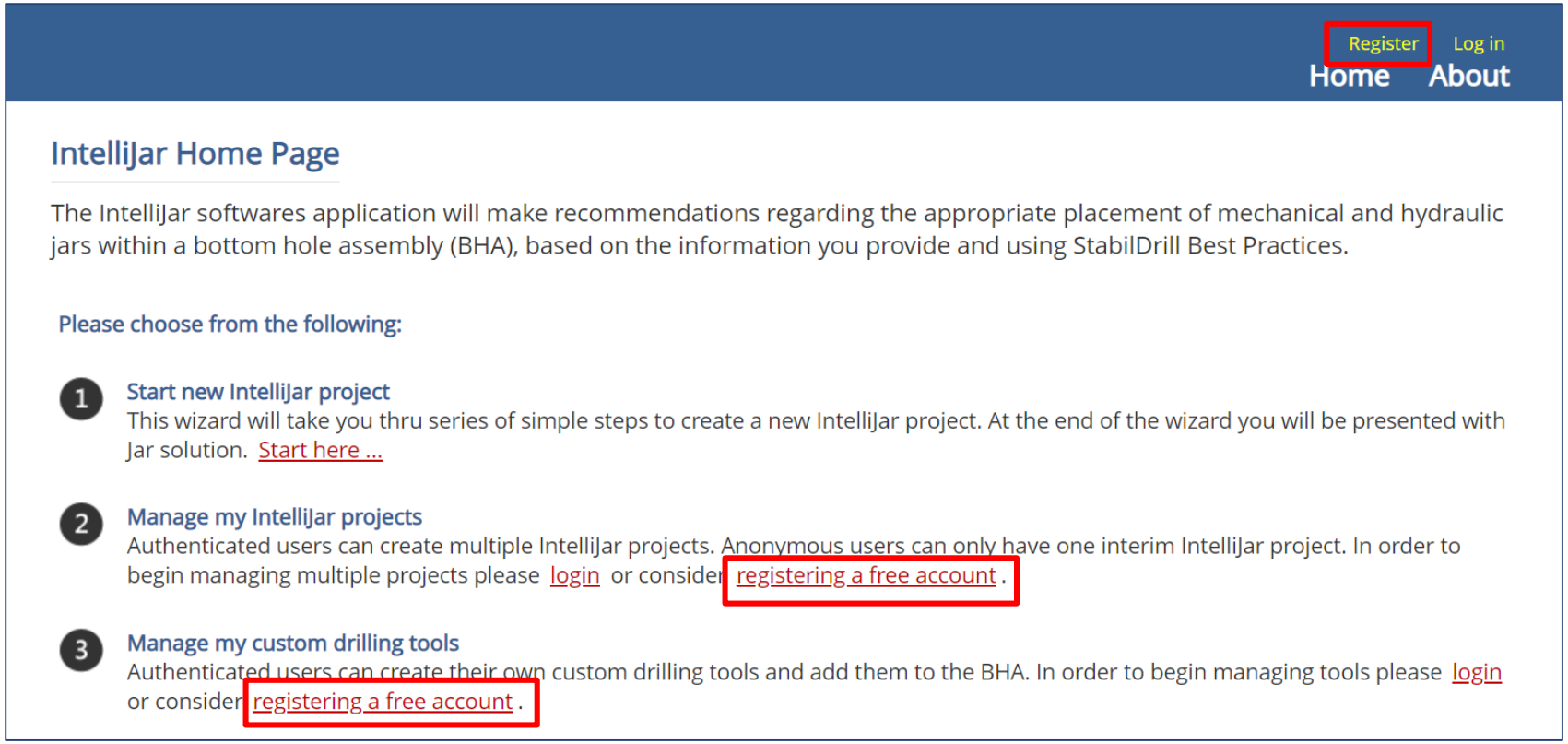
DOWNLOAD SPEC SHEET

intellijar.stabildrill.com

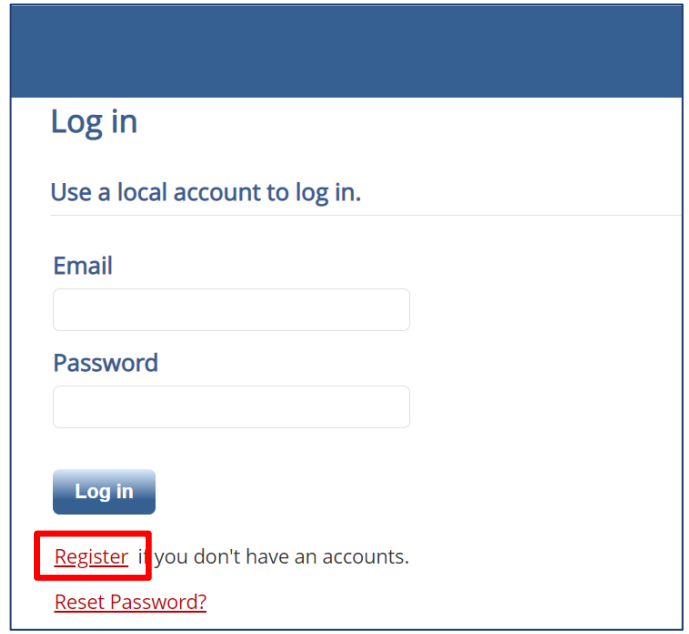
STABILDRILL

Account Registration

Once you navigate to the website and you are seeing this page, click on “**Register**” in any of the three locations. If you are already registered, click on the “**Log In**” to log into your account. Alternatively, you can click on “Log In” link and you can register on that page as well if you do not have an account already.

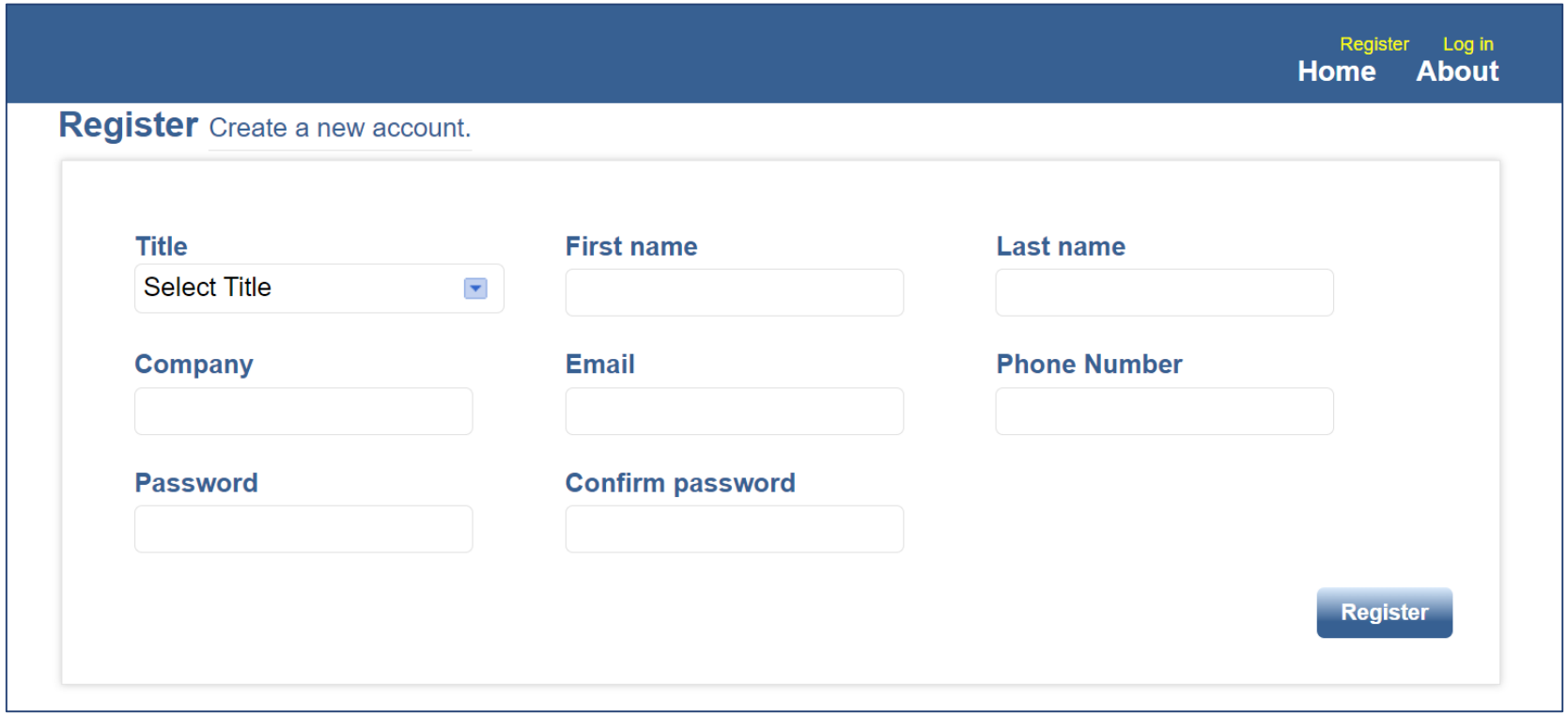


OR



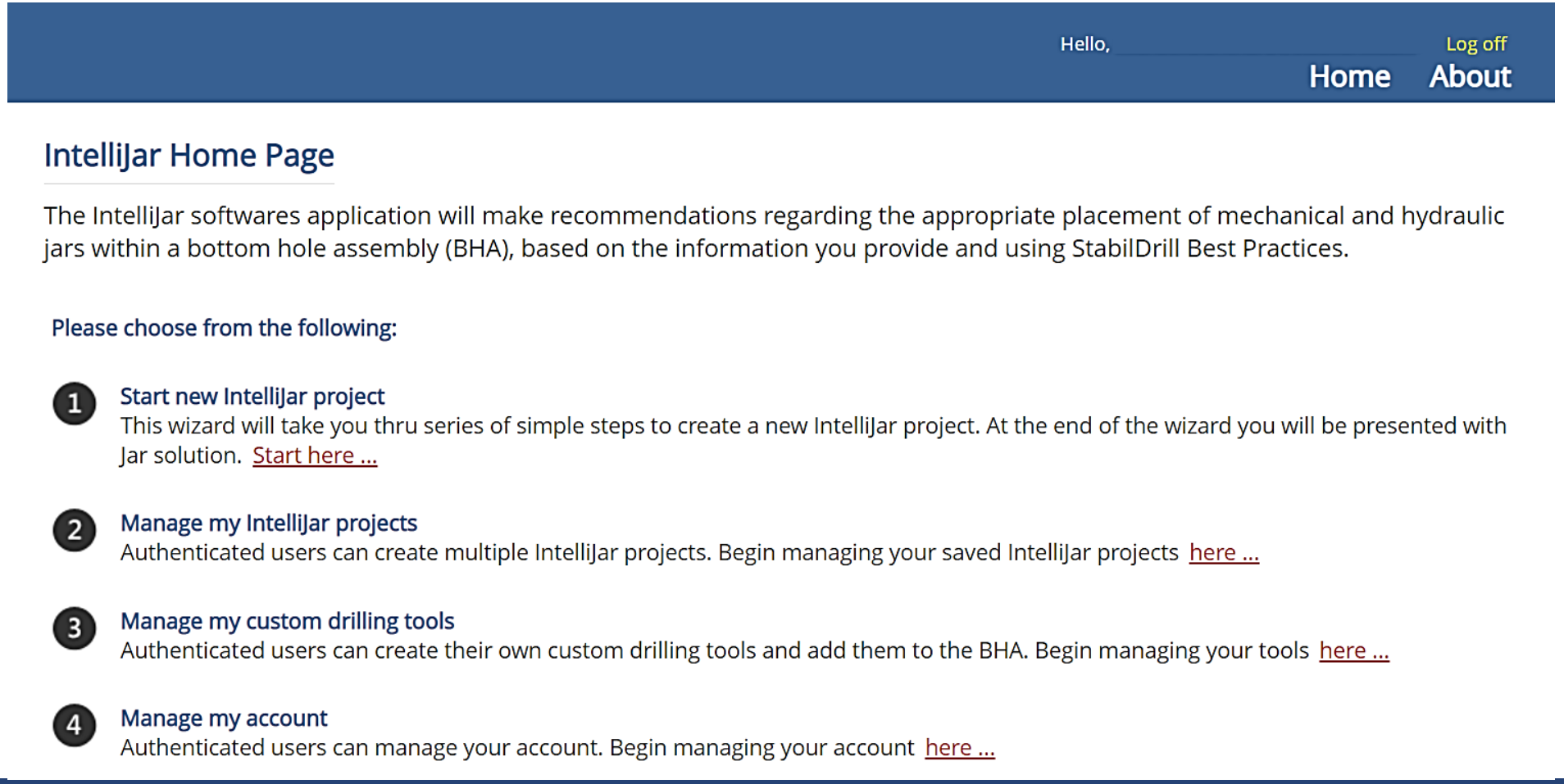
Account Registration - continued

Enter your details, as required, create a password and confirm it, then click “**Register**”. Within 24 hrs. you will be receiving a notification from Stabil Drill acknowledging your account is active and ready to use. Should you NOT receive an activation notice from Stabil Drill within 24 hrs. from your request, send an email to engineering@stabildrill.com and ask for details.

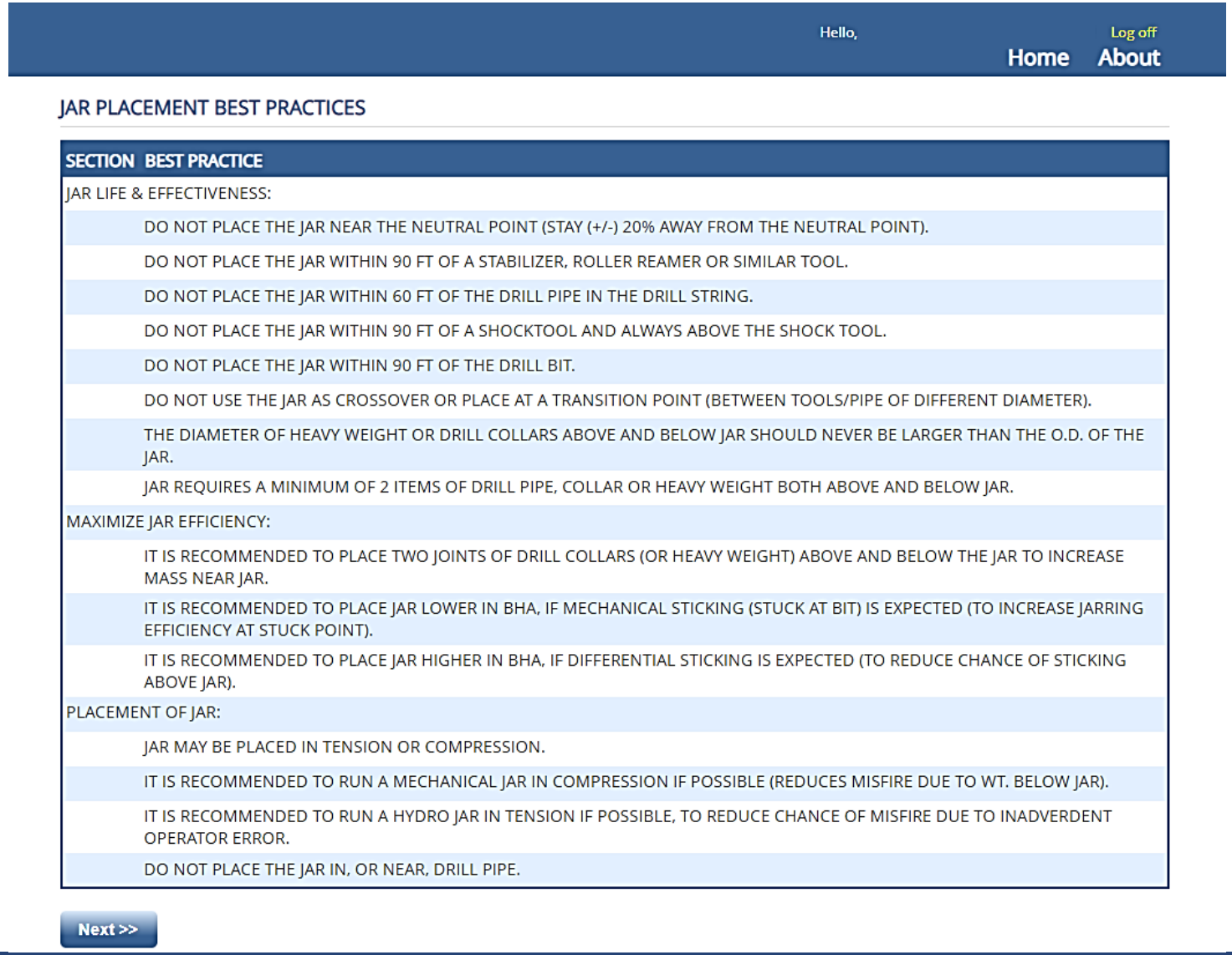


Using the Application (IntelliJar)

Once you log in with your credentials, after you have received the notification from Stabil Drill, click on "**Start Here**" as instructed, or choose one of the following as shown below:



Using the Application (IntelliJar) - continued

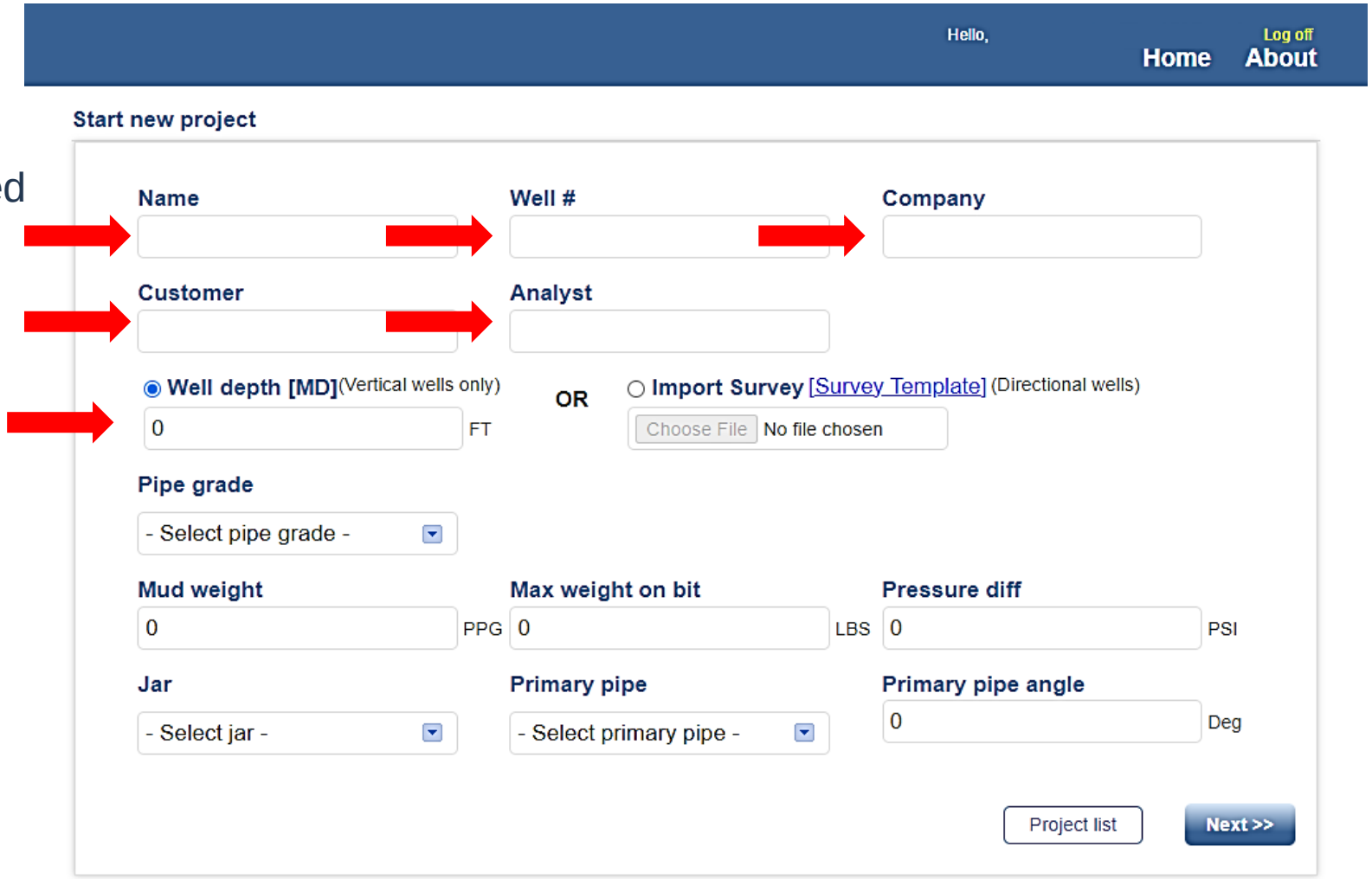


After reading important details about the jar, click on NEXT

Using the Application (IntelliJar) - continued

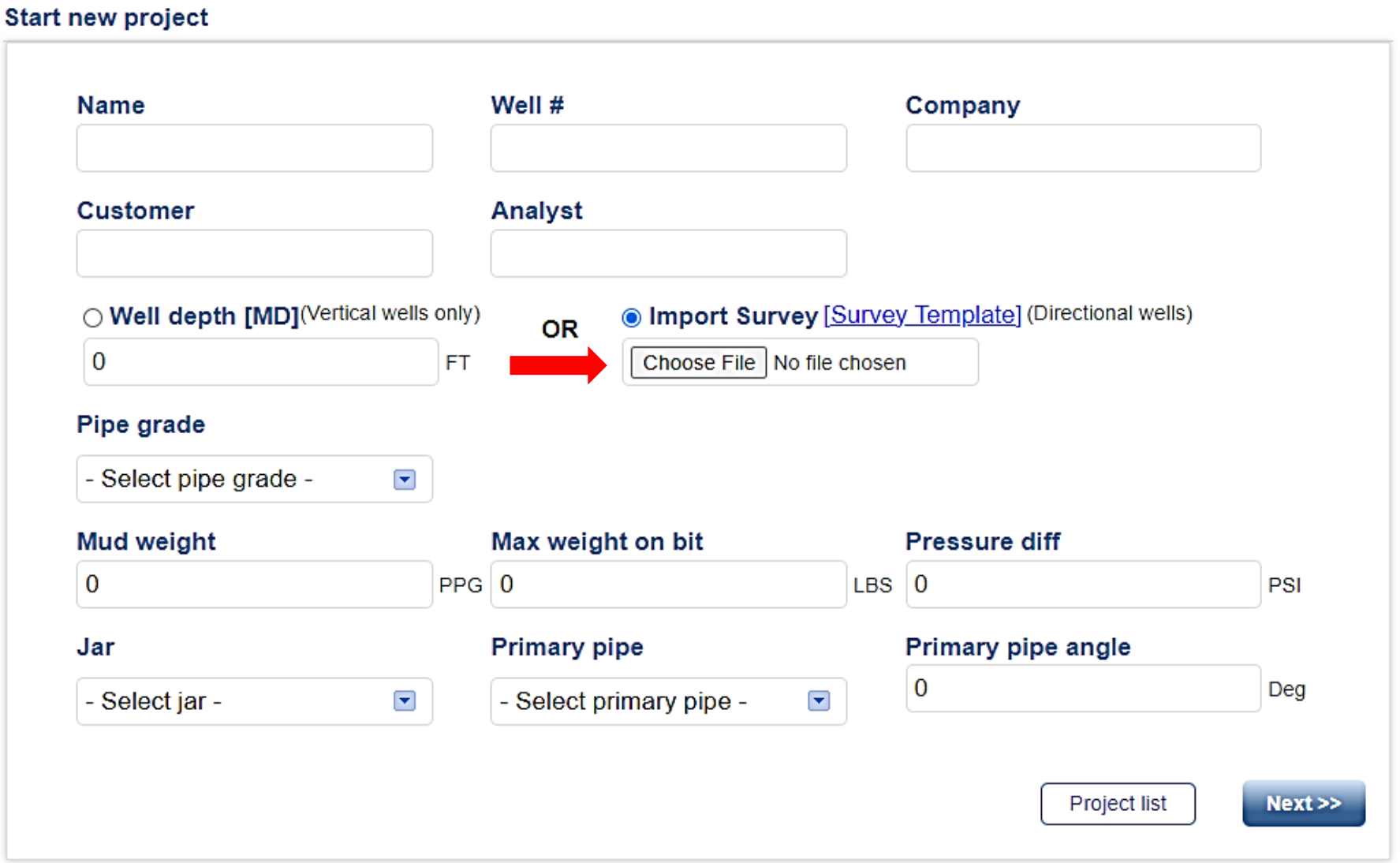
Enter the details here as required

For vertical wells, check the radio button and enter measured depth here.



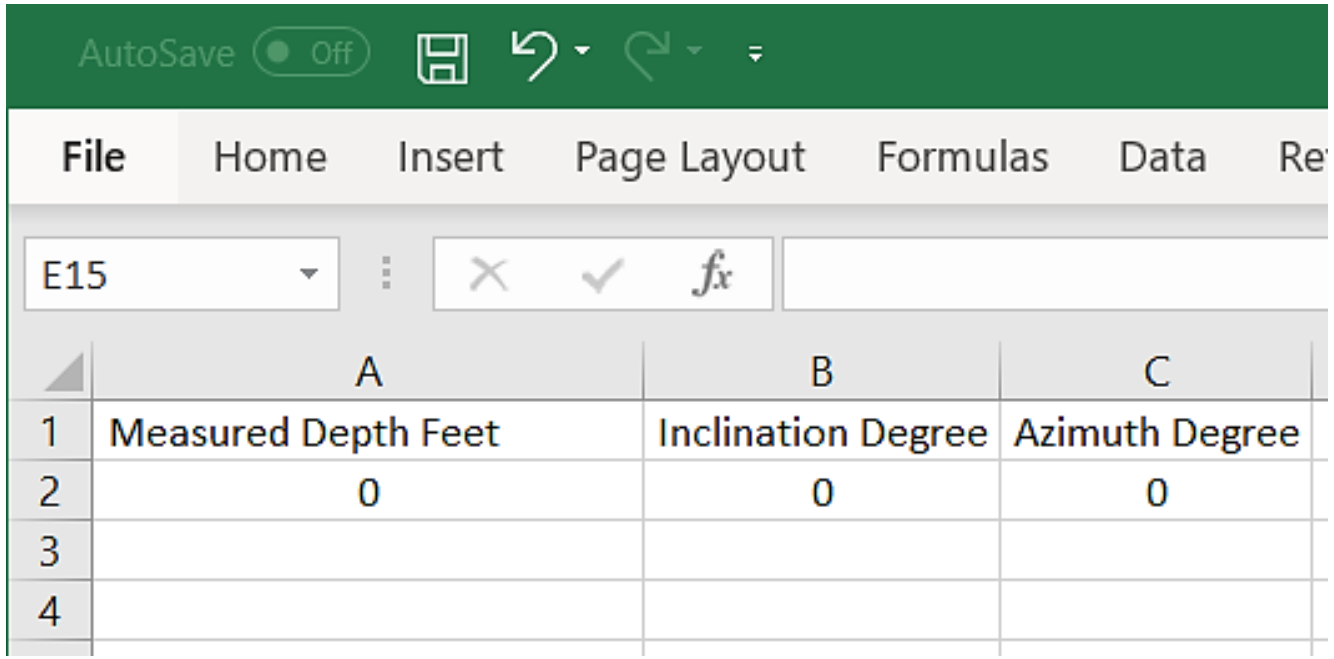
Using the Application (IntelliJar) - continued

If you have a survey available, check this radio button, and the application will automatically pull measured depth from the survey, if the survey is formatted as the reference template.



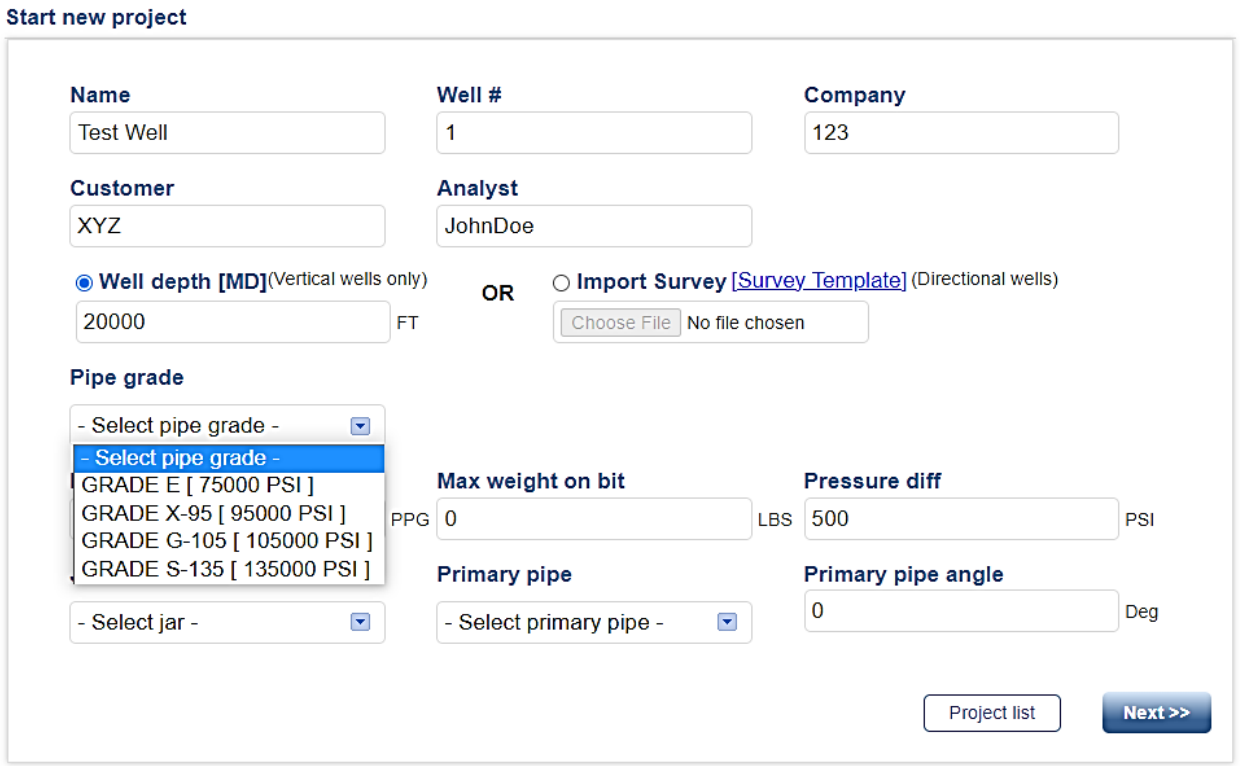
Using the Application (IntelliJar) - continued

The “Survey Template” file contains Measured Depth (in feet), Inclination (in degrees) and Azimuth (in degrees), being formatted as a .csv file (comma separated values), example below:

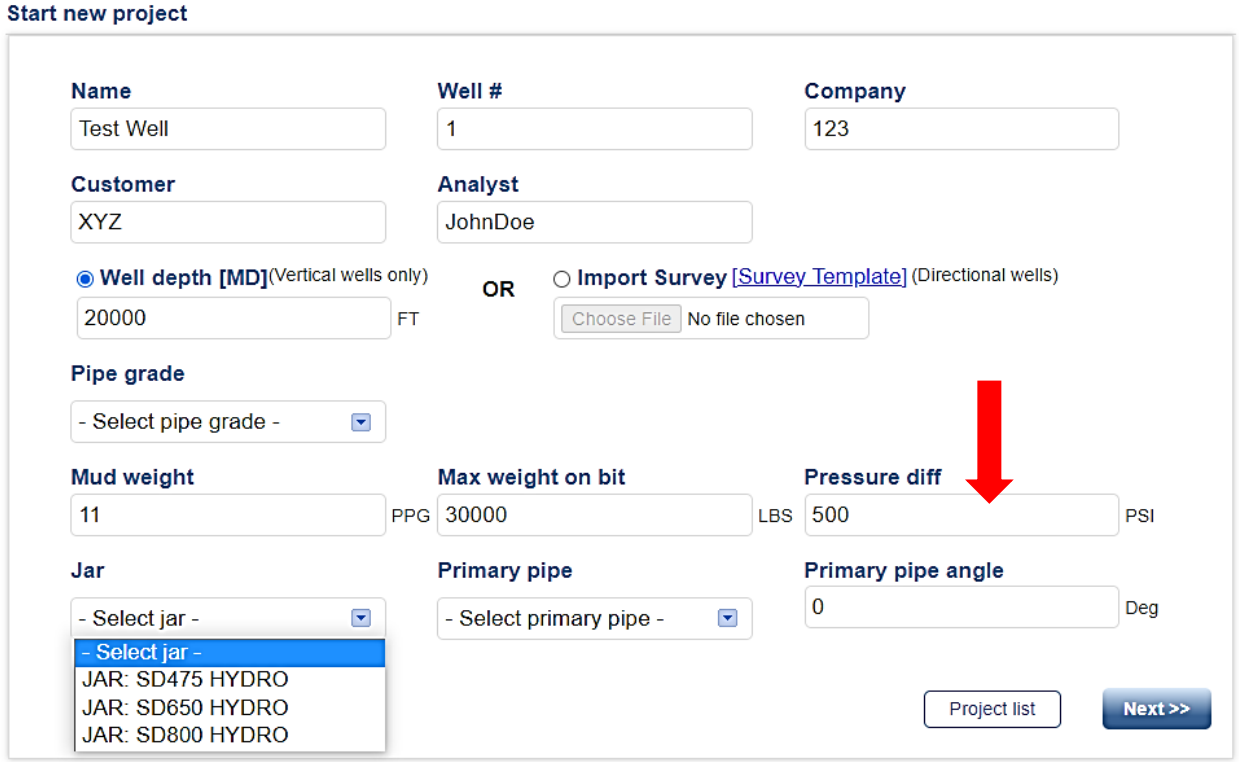


Using the Application (IntelliJar) - continued

Select your pipe grade from the drop-down menu

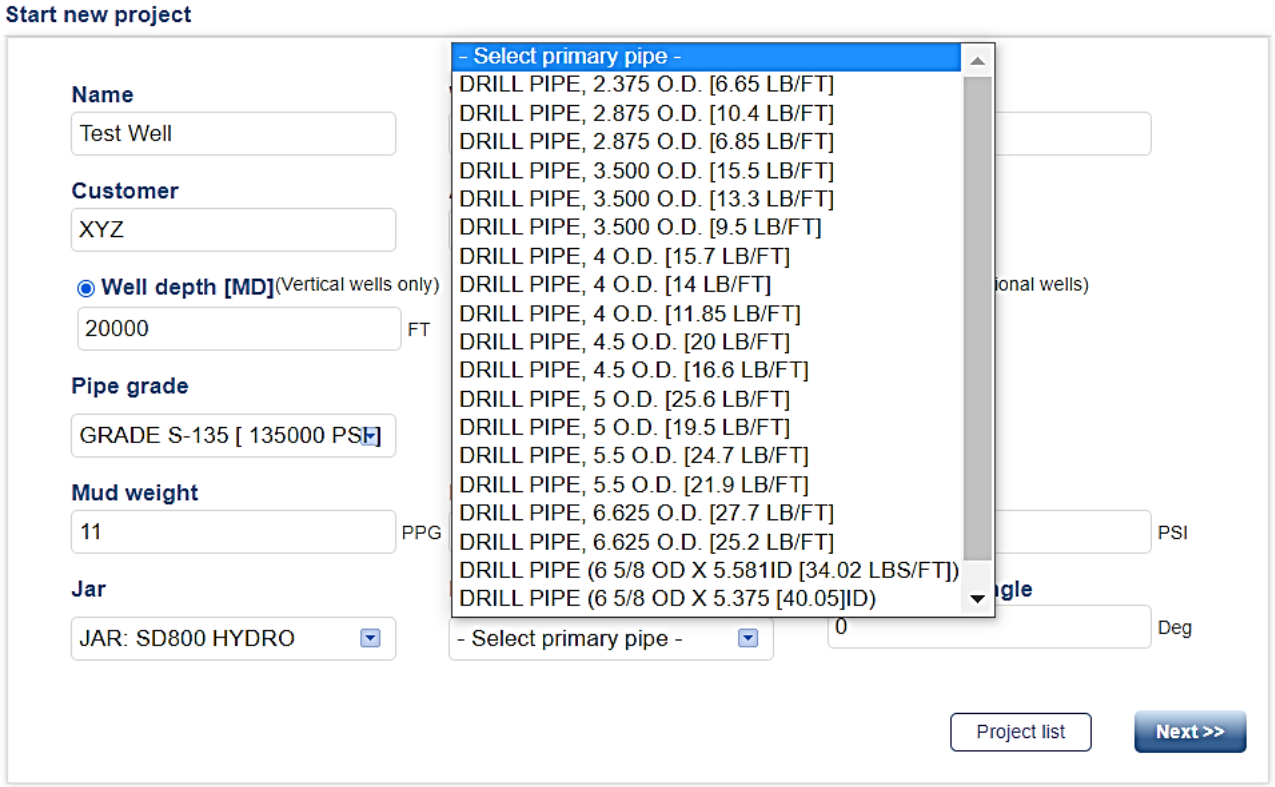


Select your jar size from the drop-down menu (notice Pressure Difference (pressure across the bit) is about 500 psi, if you think you have a different number, then enter it here)



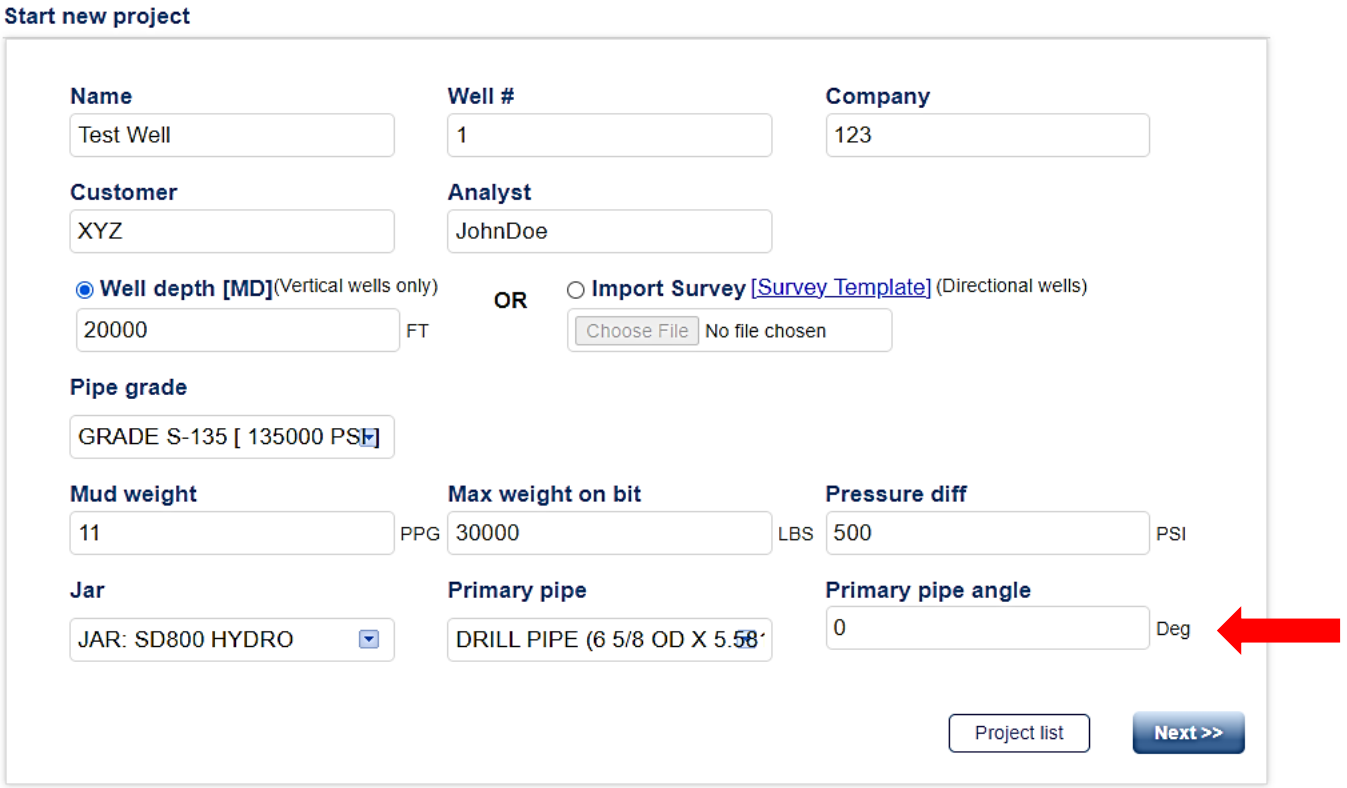
Using the Application (IntelliJar) - continued

Select your primary pipe from the drop-down menu. If you don't see on the list the pipe you will be using, send an email request to engineering@stabildrill.com with pipe details and it will be added to the catalog

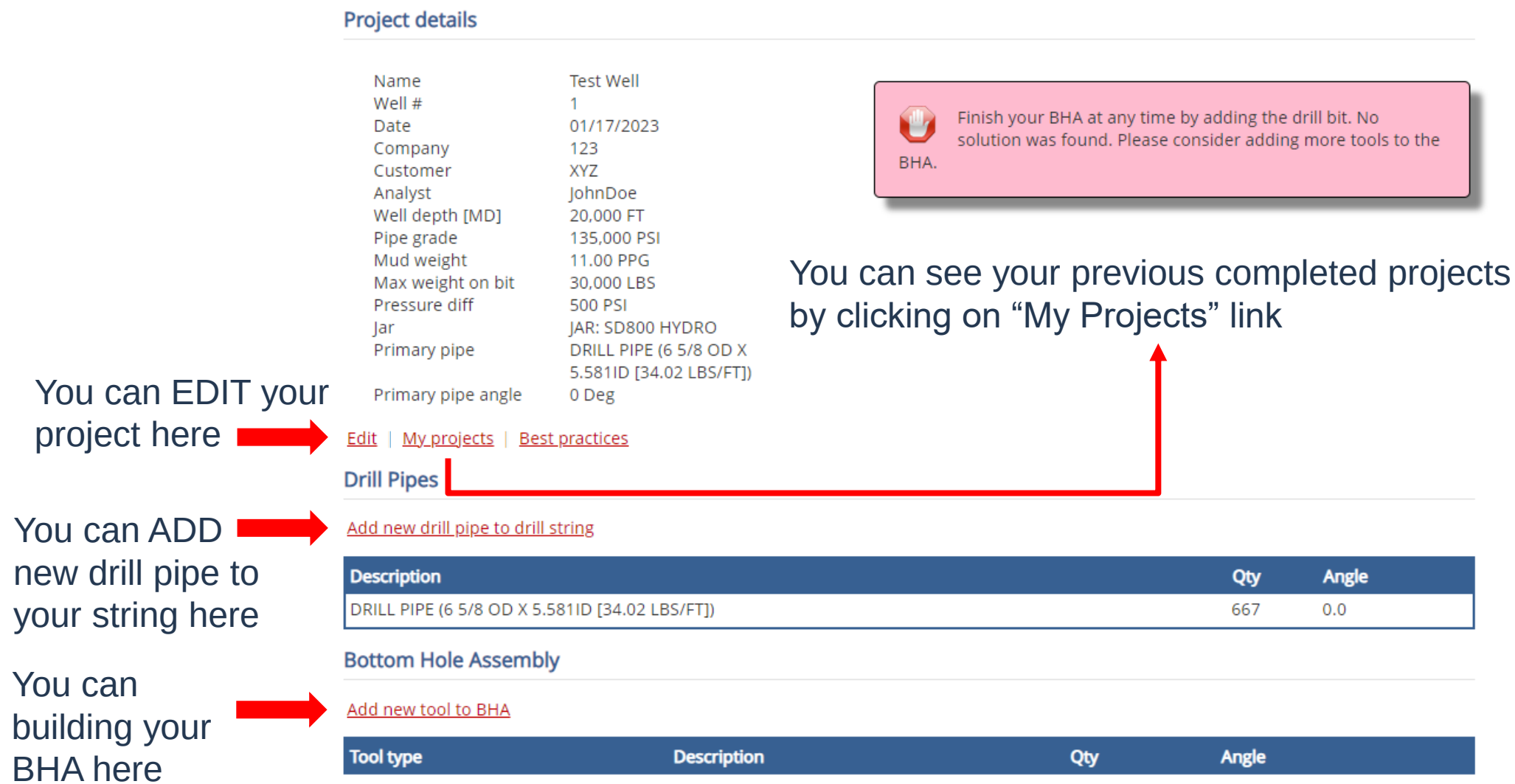


Using the Application (IntelliJar) - continued

If your pipe has any bending in it, you can enter the pipe angle here, if not, leave zero and click **NEXT**

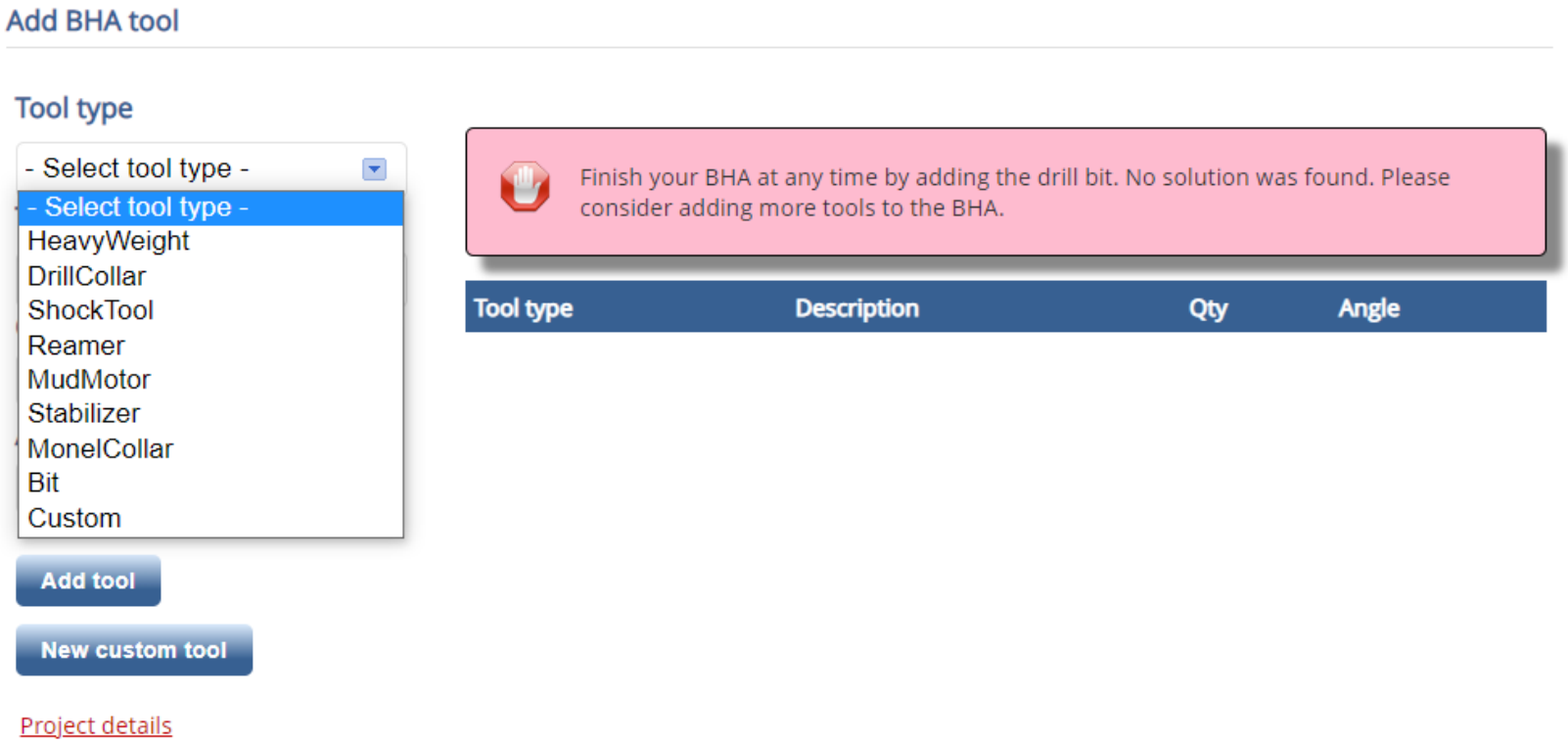


Using the Application (IntelliJar) - continued



Using the Application (IntelliJar) - continued

Use the drop-down menu to add you BHA components, starting with the “Bit” first. If you need your BHA component is NOT on the list, you can click on the “New Custom Tool” button to create your custom tool. Enter the details as required and it will be saved in the database for future reference.



Using the Application (IntelliJar) - continued

Project details

Name	Test Well
Well #	1
Date	01/17/2023
Company	123
Customer	XYZ
Analyst	JohnDoe
Well depth [MD]	20,000 FT
Pipe grade	135,000 PSI
Mud weight	11.00 PPG
Max weight on bit	30,000 LBS
Pressure diff	500 PSI
Jar	JAR: SD800 HYDRO
Primary pipe	DRILL PIPE (6 5/8 OD X 5.581ID [34.02 LBS/FT])
Primary pipe angle	0 Deg

The BHA is complete. Solution in tension was found. Solution in compression was found.

Edit | My projects | Best practices | Solution Tension | Solution Compression

Drill Pipes

Add new drill pipe to drill string

Description	Qty	Angle
DRILL PIPE (6 5/8 OD X 5.581ID [34.02 LBS/FT])	642	0.0

Bottom Hole Assembly

Add new tool to BHA | Change the order of tools in the BHA

Tool type	Description	Qty	Angle	
Heavy Weight	HWDP (6 5/8 OD X 4.5 ID [73.72LB/FT])	20	0.0	✗
Custom Tool	UBHO	1	0.0	✗
Mud Motor	MUD MOTOR, 6-3/4 O.D. [117.5 LB/FT]	1	0.0	✗
Shock Tool	SHOCK TOOL, 8 O.D.	1	0.0	✗
Drill Collar	DRILL COLLAR, 8 O.D. X 2-13/16 I.D. [150 LB/FT]	0.33	0.0	✗
Drill Collar	DRILL COLLAR, 8 O.D. X 2-13/16 I.D. [150 LB/FT]	2	0.0	✗
Shock Tool	SHOCK TOOL, 8 O.D.	1	0.0	✗
Stabilizer	STABILIZER, 7.25 O.D. [9-7/8 HOLE SIZE]	1	0.0	✗
Bit	DRILL BIT - 9 7/8	1	0.0	✗

Using the Application (IntelliJar) - continued

You can change the order of the BHA components by clicking here

Once you click on the link, click and drag the component you want to move (up or down) then click SAVE

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Customer	XYZ
Analyst	JohnDoe
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Mud weight	11.00 PPG
Max weight on bit	30,000 LBS
Pressure diff	500 PSI
Jar	JAR: SD800 HYDRO
Primary pipe	DRILL PIPE (6 5/8 OD X 5.581ID [34.02 LBS/FT])
Primary pipe angle	0 Deg

The BHA is complete. Solution in tension was found. Solution in compression was found.

Edit | My projects | Best practices | Solution Tension | Solution Compression

Drill Pipes

Add new drill pipe to drill string

Description	Qty	Angle
DRILL PIPE (6 5/8 OD X 5.581ID [34.02 LBS/FT])	642	0.0

Bottom Hole Assembly

Add new tool to BHA | Change the order of tools in the BHA

Tool type	Description	Qty	Angle
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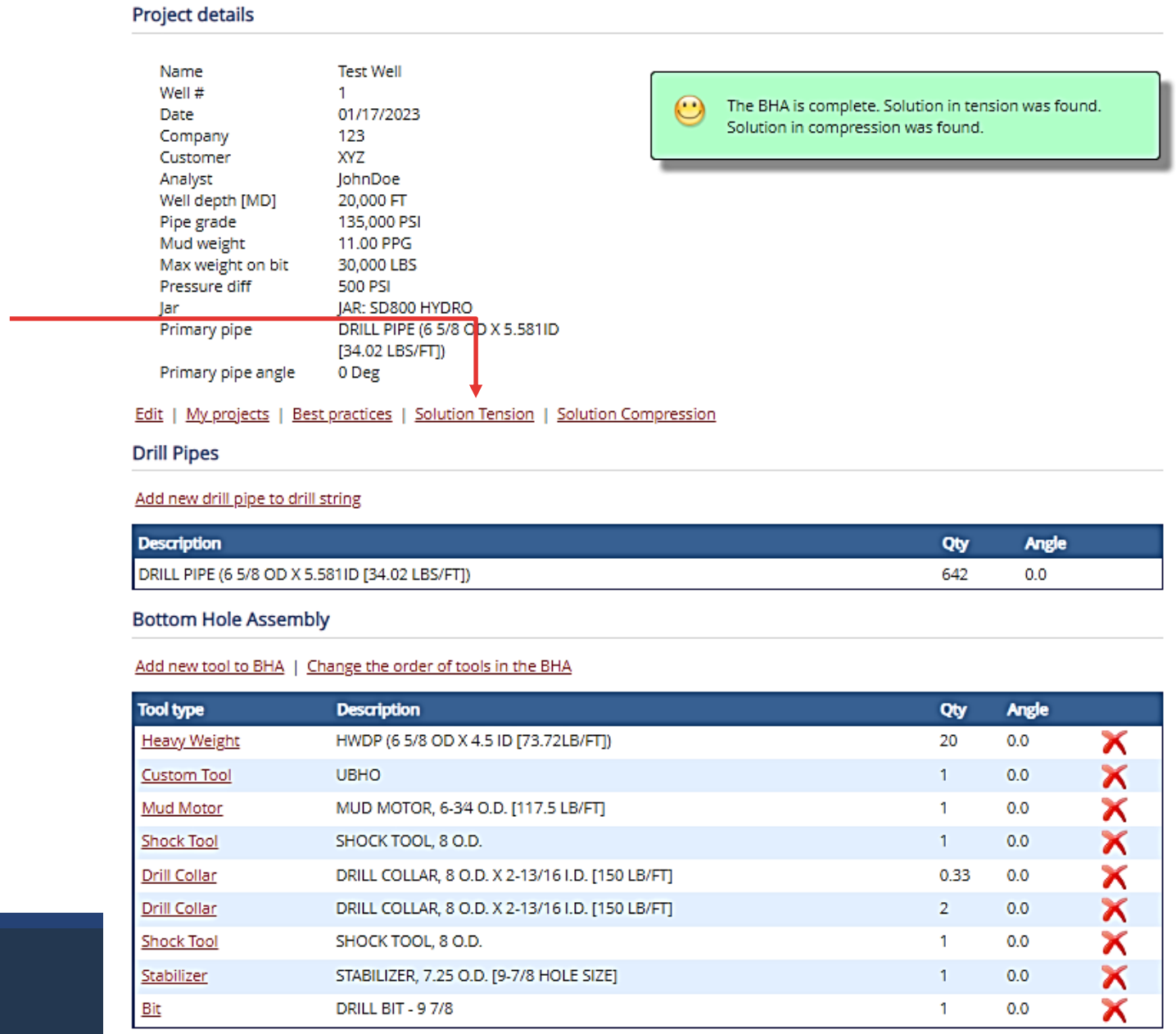
Mud Motor	MUD MOTOR, 6-3/4 O.D. [117.5 LB/FT]	1	0.0
Drill Collar	DRILL COLLAR, 8 O.D. X 2-13/16 I.D. [150 LB/FT]	0.33	0.0
Stabilizer	STABILIZER, 7.25 O.D. [9-7/8 HOLE SIZE]	1	0.0
Shock Tool	SHOCK TOOL, 8 O.D.	1	0.0
Drill Collar	DRILL COLLAR, 8 O.D. X 2-13/16 I.D. [150 LB/FT]	2	0.0
Bit	DRILL BIT - 9 7/8	1	0.0

Using the Application (IntelliJar) - continued

Once you get a solution (smiley face within the green box) you can click HERE to see the calculation results and SAVE your file as a .pdf

For editing purposes, you can always click on the highlighted BHA components and change them, their number, angle and so on.



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Jar	JAR: SD800 HYDRO
Primary pipe	DRILL PIPE (6 5/8 OD X 5.581ID [34.02 LBS/FT])
Primary pipe angle	0 Deg

The BHA is complete. Solution in tension was found. Solution in compression was found.

Edit | My projects | Best practices | Solution Tension | Solution Compression

Drill Pipes

Add new drill pipe to drill string

Description	Qty	Angle
DRILL PIPE (6 5/8 OD X 5.581ID [34.02 LBS/FT])	642	0.0

Bottom Hole Assembly

Add new tool to BHA | Change the order of tools in the BHA

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Mud Motor	MUD MOTOR, 6-3/4 O.D. [117.5 LB/FT]	1	0.0
Shock Tool	SHOCK TOOL, 8 O.D.	1	0.0
Drill Collar	DRILL COLLAR, 8 O.D. X 2-13/16 I.D. [150 LB/FT]	0.33	0.0
Drill Collar	DRILL COLLAR, 8 O.D. X 2-13/16 I.D. [150 LB/FT]	2	0.0
Shock Tool	SHOCK TOOL, 8 O.D.	1	0.0
Stabilizer	STABILIZER, 7.25 O.D. [9-7/8 HOLE SIZE]	1	0.0
Bit	DRILL BIT - 9 7/8	1	0.0

Using the Application (IntelliJar) - continued

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Analyst	JohnDoe
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Jar	JAR: SD800 HYDRO
Primary pipe	DRILL PIPE (6 5/8 OD X 5.581ID [34.02 LBS/FT])
Primary pipe angle	0 Deg

The BHA is complete. Solution in tension was found. Solution in compression was found.

Edit | My projects | Best practices | Solution Tension | Solution Compression

Drill Pipes

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Drill Collar	DRILL COLLAR, 8 O.D. X 2-13/16 I.D. [150 LB/FT]	2	0.0
Shock Tool	SHOCK TOOL, 8 O.D.	1	0.0
Stabilizer	STABILIZER, 7.25 O.D. [9-7/8 HOLE SIZE]	1	0.0
Bit	DRILL BIT - 9 7/8	1	0.0

For directional wells, where the survey is available, the user can enter the “ANGLE” for EACH tool, working from the bit upwards and considering the length of EACH individual tool. Start from the **BIT**

Measured Depth	Inclination	Azimuth
MD	INC	AZI
0	0	0
7	0	0
86	0	19
178	0	292
270	1	160
360	2	157
1500	17	161
2400	20	164
5700	20	164
6950	22	150
7000	24	141
7050	27	134
7100	30	128
7150	33	123
7200	36	119

EXAMPLE

1. **Bit** is 1’ long, from 7200’ to 7199’ @ **36** deg inc.
2. **Stabilizer** is 10’ long, from 7199’ to 7189’ @ **36** deg inc.
3. **Shock Tool** is 10’ long, from 7189’ to 7179’ @ **36** deg inc.
4. **Drill Collar** is 31’ long, from 7179’ to 7148’ @ **36** deg inc.
5. **Drill Collar** is 31’ long, from 7148’ to 7117’ @ **33** deg inc.
6. **Shock Tool** is 10’ long, from 7117’ to 7107’ @ **30** deg inc.
7. **Mud Motor** is 30’ long, from 7107’ to 7077’ @ **30** deg inc.
8. **UBHO** is 6’ long, from 7077’ to 7071’@ **27** deg inc.
9. **HWDP** is 31’ long, from 7071’ to 7040’@ **24** deg inc.
10. **HWDP** is 31’ long, from ….’ to ….’@ **….** deg inc.

Continue breaking down components till Inclination (inc.) is zero degrees. Leave the rest of the drill string a zero inclination and then CLICK on the Solution Tension as outlined in the previous slide.

You can PRINT or SAVE the final document for your reference.