

DrillPlan automation features enhance well planning at PRI Operating

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PRI Operating



What's Next?

SIS Global Forum 2017

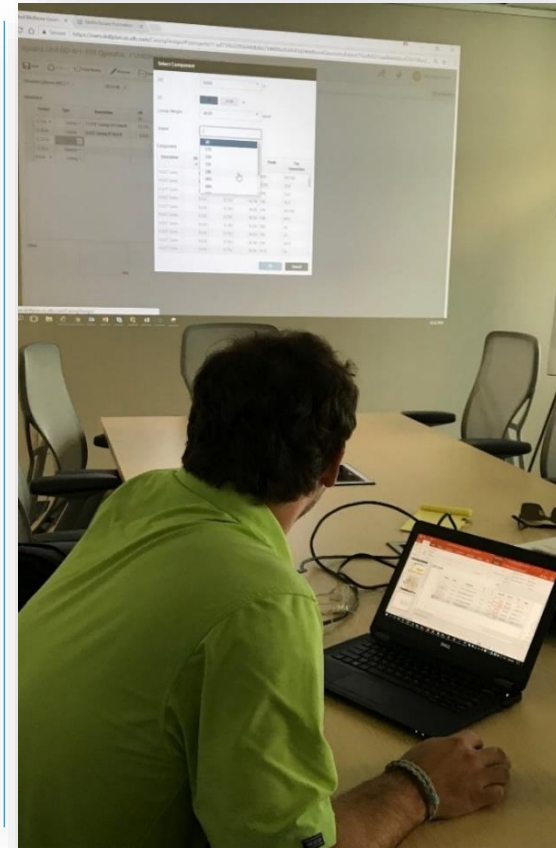
September 13-15

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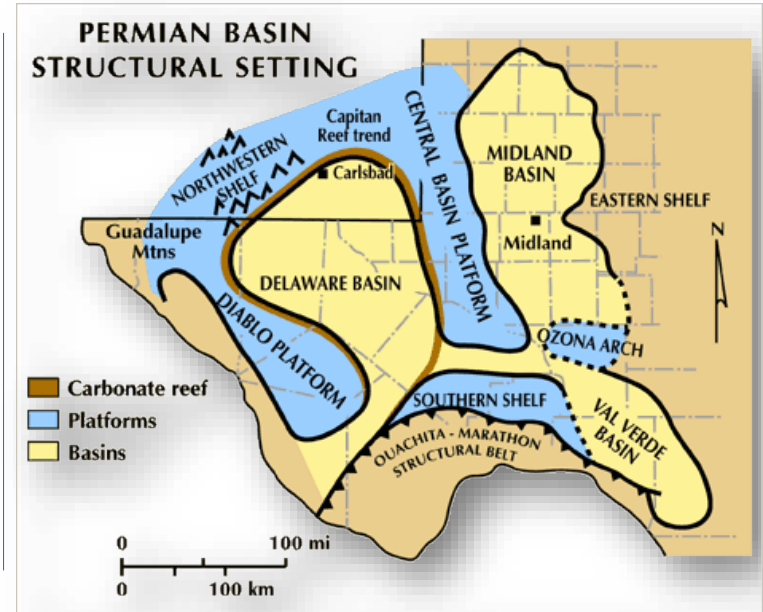
Agenda

- PRI Operating profile
- Current well planning flow & challenges
- Our DrillPlan experience
- Conclusions



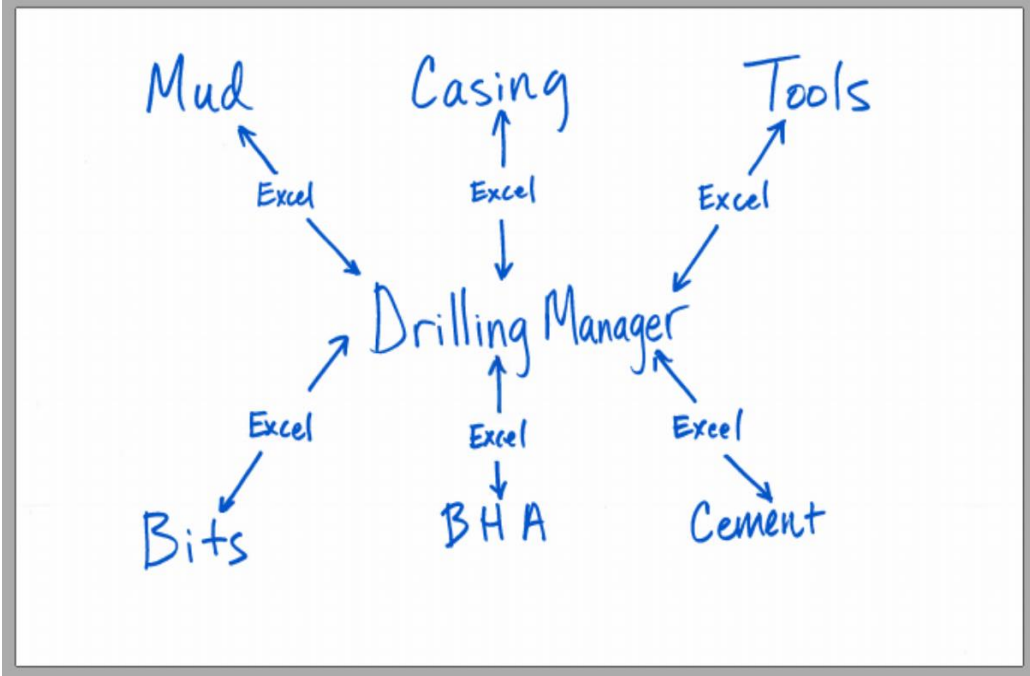
Company Profile

- Privately held E&P company based in Midland, Texas
- Operating approximately 35,000 acres
- Currently running a two-rig program
- One dedicated frac crew
- Current production 12,500 BOE/day
- Drilling horizontal wells in the Bone Spring and Wolfcamp formations in the Delaware Basin



Current Well Planning: Flow & Challenges

Well planning workflow



Our challenges

- data integration
- collaboration
- data sources
- cookie cutter



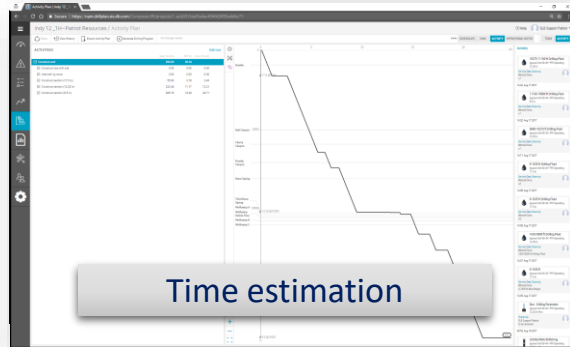
- Over costs
- Well quality

Cloud-Based Ease-of-Access

- Ready to be used - No installation or set up time is required
- No additional hardware investment is necessary to start planning in DrillPlan
- Rapid personalized templates created for our specific well planning needs:
 - Well planning workflow
 - Drilling program
 - Well schematics, BHAs, etc.



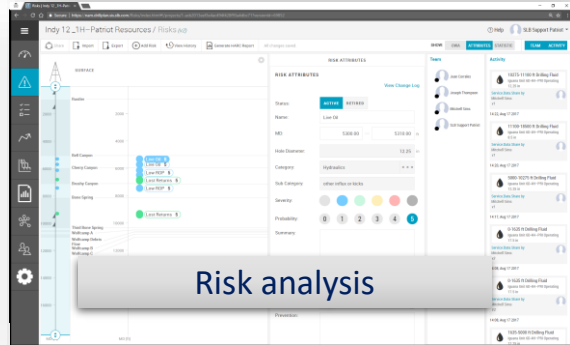
Very Easy to Utilize



A screenshot of the Wellbore Geometry software interface showing a schematic diagram of a wellbore and a table of wellbore geometry data. The schematic shows a vertical wellbore with various sections. The table below provides detailed information for each section.

Section	Type	Description	OD	ID	Start MD	End MD	TOC	Grade
17.5 m	Casing	13.375" Casing 54.5 Bar/ft	13.375	12.515	0.00	1444.00	0.00	J55
12.25 m	Casing	9.625" Casing 47 Bar/ft	9.625	8.681	0.00	571.20	3150.00	P110
12.25 m	Tapcon	9.625" Casing 43.5 Bar/ft	9.625	8.750	0.71.20	9630.53	3150.00	P110
12.25 m	Tapcon	9.625" Casing 47 Bar/ft	9.625	8.681	9630.53	10253.00	3150.00	P110
8.5 m	Casing	5.5" Casing 20 Bar/ft	5.500	4.718	0.00	18201.00	3000.00	P110

A grey callout box at the bottom of the screenshot contains the text "Wellbore geometry".

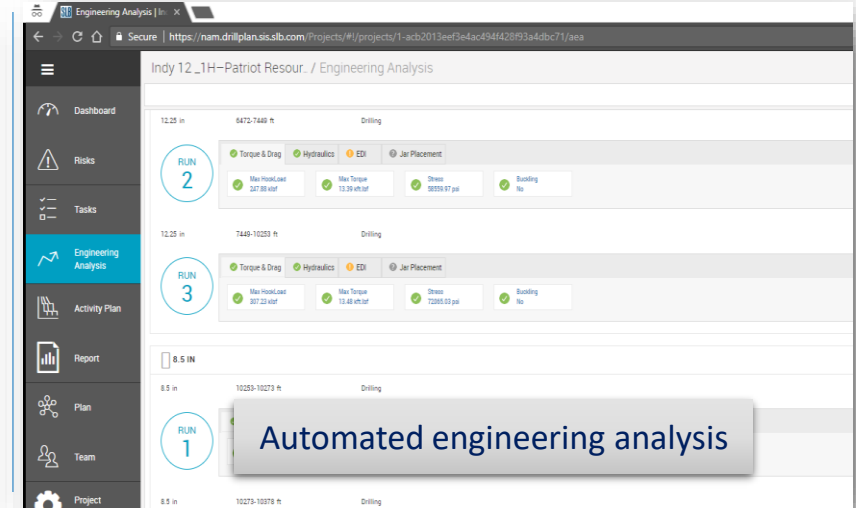
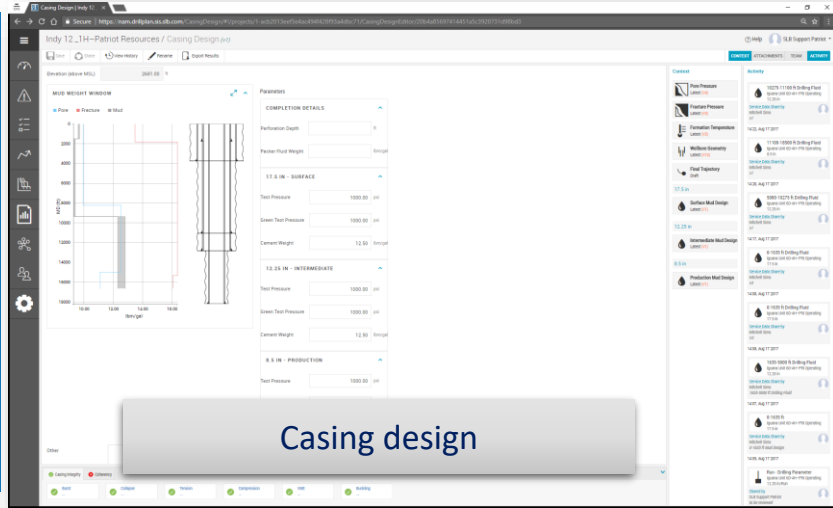


A screenshot of the Wellbore Geometry software interface showing a BHA design table. The table lists various parameters for different sections of the wellbore, including depth, diameter, and material properties. A grey callout box at the bottom of the screenshot contains the text "BHA design".

Section	Type	Description	OD	ID	Start MD	End MD	TOC	Grade
17.5 m	Casing	13.375" Casing 54.5 Bar/ft	13.375	12.515	0.00	1444.00	0.00	J55
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- One-day training was sufficient to learn how to run DrillPlan
 - First well was planned in 4 days, subsequent wells (6) were planned in 1 day each
- Well planning workflows powered by intuitive processes with well defined dependencies and easy data ingestion (risks, BHA, etc.)
- With DrillPlan a complex process, like time estimation, is easily expedited by integrating offset well data

Systematic Approach to Well Planning Increases Overall Efficiency



Automated features in DrillPlan...

- Enhance our “cookie cutting” well planning, while highlighting potential execution issues
- Empower our team to evaluate an ample variety of well scenarios in a fraction of the time spent today
- Help us increase well integrity and focus efforts where they are really needed (operations efficiency)

Robust Teamwork Infrastructure



DrillPlan is a step change in well planning by coupling engineering with advanced project management functionalities



NOVEL APPROACH



Task oriented well planning enables responsibility distribution and promotes team interaction



INCREASE OF PRODUCTIVITY



Clarity of duties and deadlines, housed on a central shared workspace



TEAM ACCOUNTABILITY

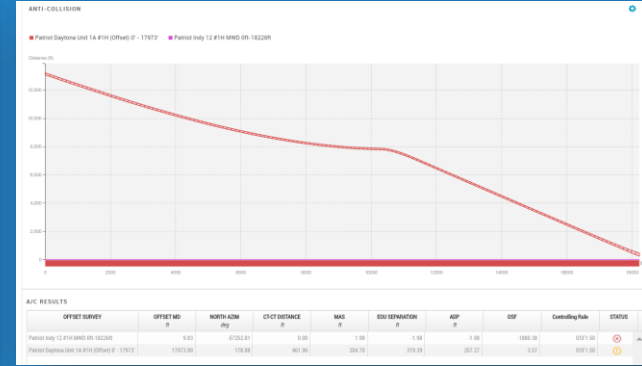
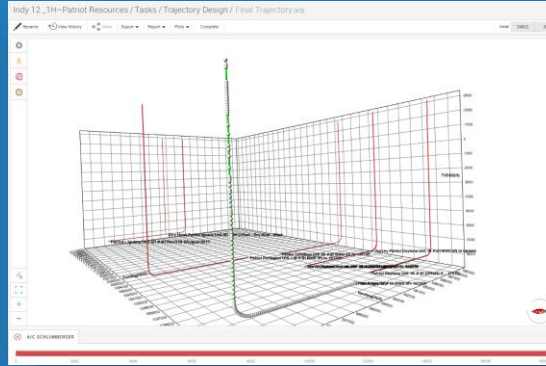
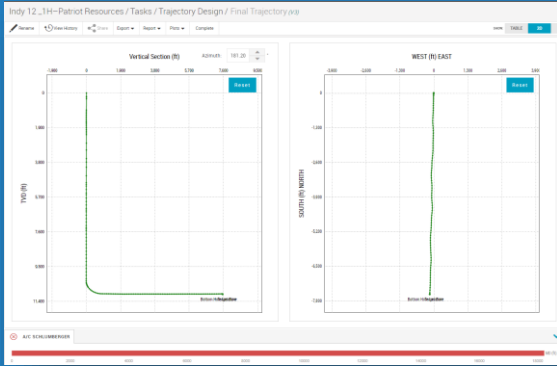


Overall DrillPlan allows for transparency and workflow progress updates



COMPANY WIDE AWARENESS

Direct Interaction with Service Companies

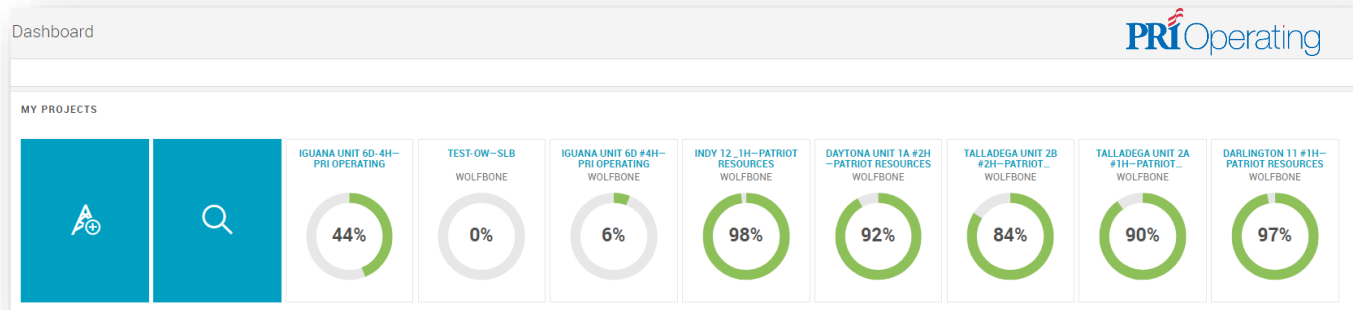


Trajectory design and anti-collision analysis for well Indy 12_1H

- Directional company interacted directly in DrillPlan – this minimized back and forth iterations and unnecessary revisions
- BHAs and hydraulic design options were also integrated within DrillPlan by service company

Conclusions from the PRI Operating DrillPlan Experience

- No deployment hurdles
- Adaptable to specific needs
- Automated features expedite our planning efforts while enhancing well integrity
- Time savings through advanced project management tools and direct interaction with service companies
- Re-gain ownership of the well planning process



Q & A



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