Open Water Abandonment

Presentation contains Patented technology and the proprietary and confidential information of Wright’s Well Control Services, LLC.
NEW BSEE GUIDELINES

• Open water abandonment without barriers in place will no longer be allowed if perforating annuli.

• An EZSV would no longer be allowed as it is an open water operation with only one barrier in place during pumping operations.

• Concern is a drive off or drift off scenario when the annuli has been perforated and insufficient barriers are in place.
Meeting with BSEE

Upon learning of new ruling for open water abandonment, Wright’s contacted BSEE and requested a meeting to discuss the issue.

• This meeting took place on August 5th in New Orleans at the BSEE office. An understanding of the new ruling was gained and a concept of a new system was discussed using some of the existing system components and concepts that Wright’s had previously developed.

• A 2nd meeting was scheduled for Sept 16th in which Wright’s representatives and customers attended a regional managers meeting of BSEE and presented the concept system.
  ❖ BSEE determined that this would be a safe system and would have no issues when permitting.

• A 3rd meeting took place on Oct. 8th with BSEE technical group and others to verify and answer any question they may have concerning the new system.
  ❖ System was deemed acceptable with the normal conditions, Testing, SIT, Documentation and System Stack-up drawings.
Triple BOP w/ Emergency Pipe Stroker

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Patented Modular Connector

Proprietary 15K Modular Connector

*Patent Number US 9,228,416 B2
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New OWA System
Well Bore Example

• Assuming that lower barrier plugs are installed and tested

• Wright’s has the ability to run CBL to confirm cement location
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Well Bore Preparation

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Installation of Barrier Plugs
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Installing OWA System
Landing Modular Connector
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Removal of Running Tool
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Upper Connector Installed
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Lowering of Work String
Testing of Barriers
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Stroke Down

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Perforating Casing String (shoe test & cement squeeze)
Perforating Casing to set Annulus Barrier Plug
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Perforating Casing String (circulate & spot annulus cement plug)
Covering Perforations

- The pipe string is recovered and the casing is severed by wireline below the perforations.

- By removing the production casing and using the dual barriers for the next size string, the upper perforations in the production casing are covered as required by BSEE.
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Hot Stab Ejection during ESD
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EQD System

2” x 15K Full Bore Hot Stab (with option of 20K)
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Annular and Pipe Ram during ESD
Shear Ram Operation
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Barriers Installed
Final Well Bore Diagram
Key Specifications

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- 18 3/4” 10K BOP
- Dual Blind Shear Rams (meets new rule requirement)
- Single Variable Pipe Ram (2 3/8” – 3 1/2”)
- 18 3/4” 5K Annular Preventer
- Stroker w/ 80,000 lb. pull (upgradeable)
- EQD with multiple barriers in place
- System capable of setting liner plugs
- Ability to pull casing strings & tubing hangers without removing BOP (by removing casing strings the perforation of the next casing string is easily performed without deep penetrating charges even when casing is not centralized)
- Capable of performing permanent abandonment of exploratory wells that are T/A by milling operations without rig
• Feel free to contact Wright’s for any questions you may have if not covered in this presentation or during the conference.

THANK YOU