

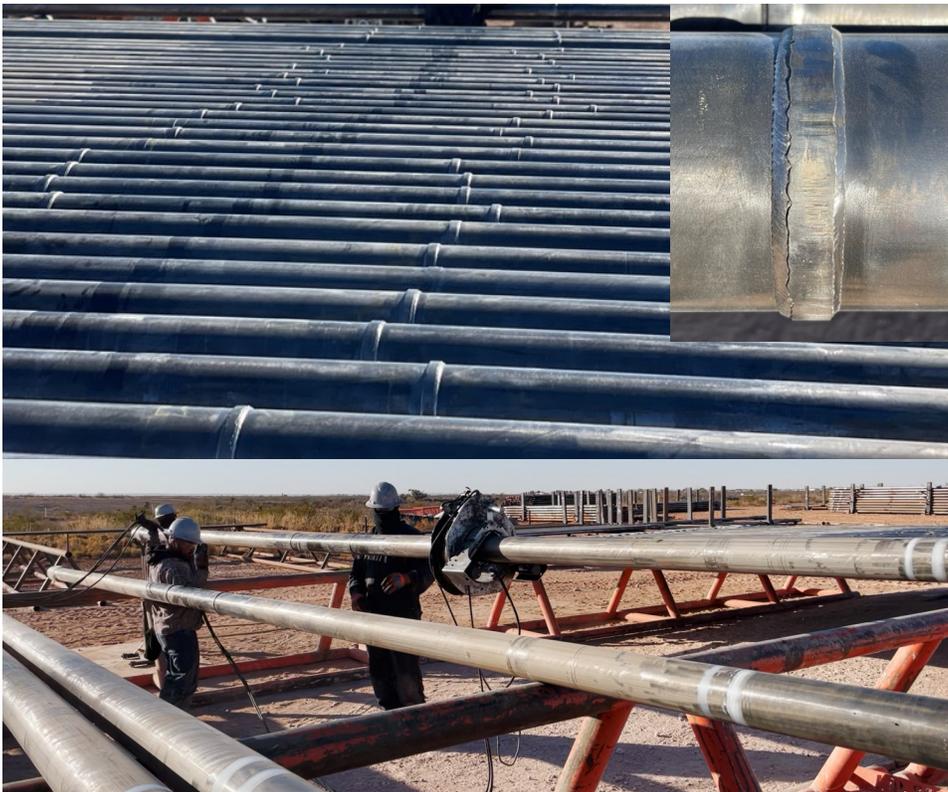
Heat-less Welding Solutions Drill Pipe Wear Pads

Bone Springs Trial – Update 3

TECHNOLOGY BASED SOLUTIONS FOR YOUR TUBULAR MAINTENANCE AND REPAIR NEEDS

Arnco welded 159 joints of CET-50 drill pipe with our drill pipe wear pads using our patent-pending Heat-less Welding Solutions (HWS). The operator was experiencing severe tube downgrades due to the use of brine-based mud (WBM) and was looking for a solution to extend the life of the pipe. Arnco worked with both the operator and the rental company to provide a solution. After drilling 3 wells, the pipe has been inspected, and the results are conclusive. Arnco's wear pads had around 50% of their life remaining, there were no cracks, and very few joints of drill pipe were rejected for low body wall. In fact, with a 92% reduction in the rejection rate of pipe due to low body walls, the customer saved around \$200,000 in downgraded pipe charges compared to their previous pad.

| | |
|----------------------|-----------------------|
| Total Depth Drilled | 60,756 ft. |
| Open Hole Horizontal | 30,341 ft. |
| Mud Type | WBM (brine) |
| On Bottom Torque | 47,000 ft./lb. |
| Wear Pad Wear Rate | 0.022 in. / 100 KRevs |



Arnco Technology, Ltd

3657 Briarpark Dr
Houston, TX 77042

Phone: 832-210-5200

Email: sales@arncotech.com

HWS
HEATLESS WELDING SOLUTIONS