

# Another record run with a PV power section!!

When: Oct. 31 – Nov. 6, 2015

Where: Dewitt County, Eagleford Shale

- Model: 4 3/4" 5:6 lobe 8.3 Stage Grp 4
- Stator Minor: 2.514
- Fit In: – 0.008" loose
- Rubber: HS88
- BHT: 280° F
- Mud Type: OBM
- Total Hrs in Hole: 101 hrs.
- D&C Hours: 74.25 hrs.
- Total Drilled: 7,287'
- Avg. ROP: 113.42 ft/hr
- GPM: 250 – 300
- Reason POOH: TD
- Customer Feedback:

BHA performed exceptionally well through the entire well. Highest bottom temperature was 327° F.

| BHA #3  |             | Mud Motor Report  |                              |                            |                 |
|---|-------------|-------------------|------------------------------|----------------------------|-----------------|
| JOB NO.:  |             | FIELD:            |                              |                            |                 |
| Company:  |             | Township:         |                              |                            |                 |
| LOCATION:   |             | Range:            |                              |                            |                 |
| RIG NAME:   |             | Lead OD:          |                              |                            |                 |
| STATE:  | Texas       | Co. Man:          |                              |                            |                 |
| COUNTY:   | Dewitt      |                   |                              |                            |                 |
| WELL NAME:  |             | Motor Failed?:    | NO                           |                            |                 |
| Time and Depths (This BHA)  | MOTOR DATA  |                   |                              | Drilling Parameters        |                 |
| Date In:  | 31-Oct-15   | Desc:             | 2.0 5/8 8.3 Stg FBH (HR) BFF | SOPL:                      | 220-235/258-320 |
| Date Out:   | 06-Nov-15   | MFG:              | DOS                          | Rot Wt:                    | 242-265         |
| Hrs in Hole:  | 101         | BHA Circ/All BHA  | 74.25 / 73.92                | WOB:                       | 20-Oct          |
| Start Depth:  | 11,880      | Motor SN:         |                              | TORG:                      | 5500-10000      |
| End Depth:  | 19,167      | Pad OD:           | 5.1/8                        | SPP:                       | 3700 - 4100     |
| Total Drilled:  | 7,287       | NB Stab:          | 0                            | Motor RPM:                 | 327 - 654       |
| Avg. Total ROP:   | 113.42      | Bit to Bend:      | 4.4                          | Rotary RPM:                | 40 - 80         |
| Circ Hrs:Tot/Only:  | 74.25/10.00 | Bent Hsg/Sub:     | 2.0 5/8 8.3 Stg FBH (HR) BFF | Flow Rate:                 | 300             |
| Percent Slide:  | 22.04%      | Lobe/Stage:       | 5/6 / 8.3                    | Avg Off:                   |                 |
| Percent Hours:  | 53.44%      | Rev/GAL:          | 1.09                         | Stall Pres.:               |                 |
| Slide Hours:  | 34.33       | Rotor Jet:        | 0                            | OH Bot Pres.:              |                 |
| Total Sliding:  | 1506        | Prop BUR:         |                              | <a href="#">Bit Record</a> |                 |
| Avg. Slide ROP:   | 46.78       | Act BUR:          |                              | Run#:                      | 3               |
| Percent Rotary:   | 77.96%      | Stator Clearance: |                              | Type Bit:                  | PDC             |
| Percent Hrs:  | 46.56%      | Lower Stab OD:    |                              | IADC#:                     | TFA: 0.777      |
| Rot/Total Hrs:  | 29.92/64.25 | Upper Stab OD:    |                              | JETS:                      | 13-Jun          |
| Rotary Drilled:   | 5681        | Extended Motor?:  | YES                          | Bit Drop:                  |                 |
| Avg. Rotary ROP:  | 180.89      | Number of Stalls: |                              | Cond.:                     | Green           |
| Reason POOH:  | TD          | Stall Duration:   |                              |                            |                 |
| Mud Data  |             |                   |                              |                            |                 |
| Type  | OBM         | WT:               | 12.5                         | Vis:                       | 73              |
| SAND  | 0.25        | Chlor:            | 3500                         | WL:                        | 10.4            |
|   |             | GAS               | 0                            | PV:                        | 32              |
|   |             | SOI:              | 8.4                          | #Flow T:                   | 160             |
|   |             | GRN:              | 58                           | PH:                        | 0               |
|   |             | YP:               | 13                           | Bottom Hole T:             | 280             |
| Formation:  |             |                   |                              |                            |                 |
| <b>EXPANDED REASON PULLED:</b>  |             |                   |                              |                            |                 |
| TD Well @ 19,167  |             |                   |                              |                            |                 |
| BHA PERFORMANCE   |             |                   |                              |                            |                 |
| Overall Avg. ROP = 97 ft/hr; Avg. Motor Yield = 12"/100ft; Highest Bottom Hole Temp = 327°F |             |                   |                              |                            |                 |
| ADDITIONAL COMMENTS: (Expands to next page if necessary)                                    |             |                   |                              |                            |                 |
| BHA performed exceptionally well through entire well.                                       |             |                   |                              |                            |                 |
| WinSURV II Mud Motor Report   |             |                   |                              |                            |                 |