



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: Harbin 3 Dst 1

TIME ON: 07:42
TIME OFF: 15:53

Company BOP West LLC Lease & Well No. Harbin 3
Contractor C & G Drilling Charge to BOP West LLC
Elevation 1311 Sur Formation Burgff Sand Effective Pay _____ Ft. Ticket No. RR097
Date Oct/10/2014 Sec. 7 Twp. _____ 16 S Range _____ 1 W County _____ Saline State KANSAS
Test Approved By Frank Mize Diamond Representative RICKY RAY

Formation Test No. 1 Interval Tested from 2560 ft. to 2685 ft. Total Depth 2685 ft.
Packer Depth 2555 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 2560 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 2542 ft. Recorder Number 0062 Cap. 5000 P.S.I.
Bottom Recorder Depth (Outside) 2659 ft. Recorder Number 5954 Cap. 5000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEM Viscosity 39 Drill Collar Length 300 ft. I.D. 2 1/4 in.
Weight 9.2 Water Loss 10.6 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 1150 P.P.M. Drill Pipe Length 2227 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 8 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NA Reversed Out NA Anchor Length 125A (32P) ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 xh in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: 3/4" Blow (BOB in 22 mins) NOBB
2nd Open: 1/4" Blow (BOB in 33 mins) NOBB

Recovered 15 ft. of GIP
Recovered 15 ft. of O 100% O 36 Gravity @ 60 Deg
Recovered 332 ft. of G w/ HOM 6 % G 37% O 57% M
Recovered 347 ft. of Total Fluid

| | |
|---|---------------|
| Recovered _____ ft. of _____ | Price Job |
| Recovered _____ ft. of _____ | Other Charges |
| Remarks: Tool Sample: <u>10 % G 30% O 60% M</u> | Insurance |
| | Total |

Time Set Packer(s) 9:36 AM A.M. P.M. Time Started Off Bottom 12:36 PM A.M. P.M. Maximum Temperature 101

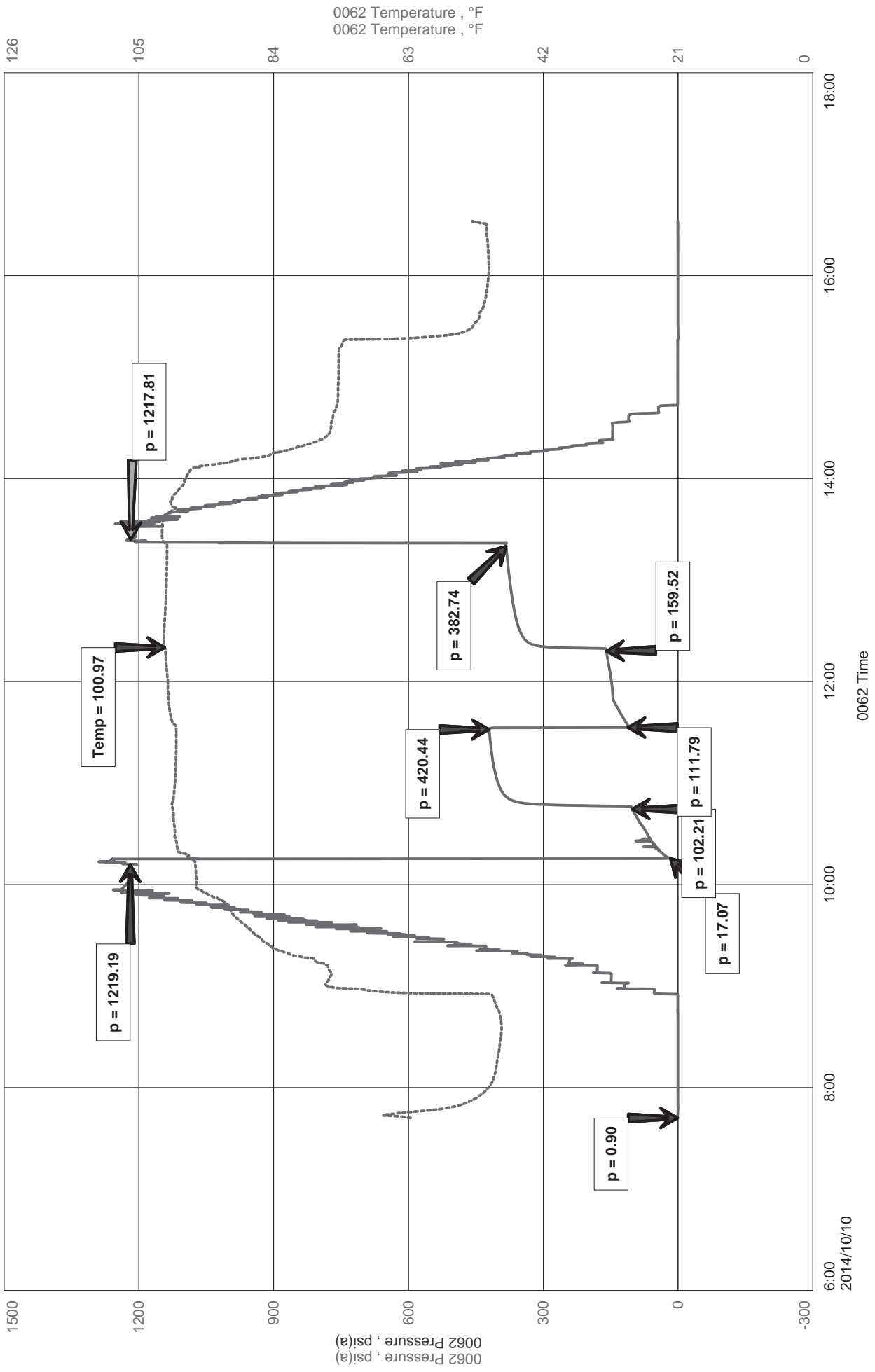
Initial Hydrostatic Pressure..... (A) 1219 P.S.I.
Initial Flow Period..... Minutes 30 (B) 17 P.S.I. to (C) 102 P.S.I.
Initial Closed In Period..... Minutes 45 (D) 420 P.S.I.
Final Flow Period..... Minutes 45 (E) 112 P.S.I. to (F) 160 P.S.I.
Final Closed In Period..... Minutes 60 (G) 383 P.S.I.
Final Hydrostatic Pressure..... (H) 1218 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

BOP West LLC
Dst 1 Burgff Sand (2560-2685)
Start Test Date: 2014/10/10
Final Test Date: 2014/10/10

Harbin 3
Formation: Dst 1 Burgff Sand (2560-2685)
Pool: Infield
Job Number: RR097

Harbin 3





Diamond Testing LLC

P.O. Box 157

Hoisington KS 67544

Ricky Ray - Tester

(620) 617-7261

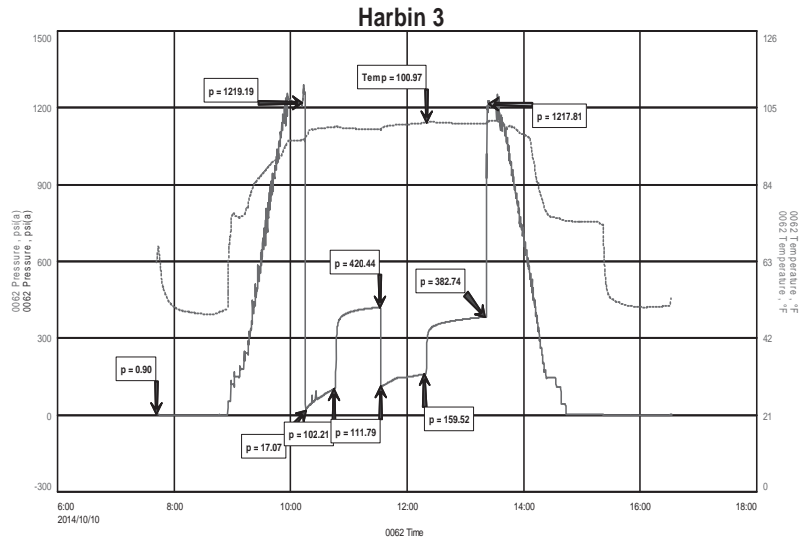
Wellsite Report

General Information

| | |
|---------------------|-------------------------------|
| Company Name | BOP West LLC |
| Contact | Steven W Sigler |
| Well Operator | BOP West LLC |
| Well Name | Harbin 3 |
| Surface Location | Sec: 7-16s-1w (Saline County) |
| Field | Hunter North |
| Well Type | Vertical |
| Pool | Infield |
| Test Purpose (AEUB) | Initial Test |
| Qualified By | Frank Mize |
| Gauge Name | 0062 |

Test Information

| | |
|-----------------|-------------------------------|
| Job Number | RR097 |
| Test Type | Drill Stem Test |
| Well Fluid Type | 01 Oil |
| Formation | Dst 1 Burgff Sand (2560-2685) |
| Start Test Date | 2014/10/10 YYYY/MM/DD |
| Start Test Time | 07:42:00 HH:mm:ss |
| Final Test Date | 2014/10/10 YYYY/MM/DD |
| Final Test Time | 15:53:00 HH:mm:ss |



Test Results

Recovery:

| | | | | |
|------|-------------|--------|---------------------|--------|
| 15' | GIP | | | |
| 15' | O | 100% O | 36 Gravity @ 60 Deg | |
| 332 | G w/ HOM | 6 % G | 37% O | 57 % M |
| 347' | Total Fluid | | | |

Tool Sample: 10% G 30% O 60% M