

DRILL-STEM TEST DATA

Well Name	Hipp	Test No.	2
Well Number	2	Zone Tested	Tronto
Company	Richlan Drilling	Date	2/16/97
Comp. Rep.	R. Schreiber	Tester	Don Fabricius
Contractor	Duke Drly	Ticket No.	3259
Location	36-17-12	Elevation	

RECEIVED
MAY 22 2001
KCC WICHITA

Recorder No. 3088 Clock Range 12 Recorder No. 4377 Clock Range 12
Depth 3935 Depth 2939
Initial Hydro Mud Press. 1427 Initial Hydro Mud Press. 1421
Initial Shut-in Press. 424 Initial Shut-in Press. 422
Initial Flow Press. 58-58 Initial Flow Press. 58-58
Final Flow Press. 58-58 Final Flow Press. 58-58
Final Shut-in Press. 341 Final Shut-in Press. 340
Final Hydro Mud Press. 1427 Final Hydro Mud Press. 1421
Temperature _____ Tool Open Before I. S. I. 30 Mins.
Mud Weight 9.0 Viscosity 41 Initial Shut-in 30 Mins.
Fluid Loss 8.8 Flow Period 60 Mins.
Interval Tested 2902-43 Final Shut-in 30 Mins.
Top Packer Depth 2897 Surface Choke Size 1
Bottom Packer Depth 2902 Bottom Choke Size 3/4
Total Depth 2943 Main Hole Size 7 7/8
Drill Pipe Size 4 1/2 X H Wt. 16.60 Rubber Size 6 3/4
Drill Collar I. D. _____ Ft. Run _____
Recovery—Total Feet _____
Recovered 65 Feet Of Slightly oil cut muddy water
Recovered _____ Feet Of _____
Recovered _____ Feet Of _____
Recovered _____ Feet Of _____

Remarks

Slid tool 12' to bottom - weak blow on initial flow-
weak building to strong blow on final flow

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It is expressly understood and agreed that Arrow Testing Company, shall not be bound by any agreement, not herein contained, and no agent or representative connected with or employed by Arrow Testing Company has authority to alter or extend the terms of this agreement. I have read and understand the terms of this agreement and represent that I am authorized to sign the same as agent of customer.

By _____
Owner, Operator or his Agent

DRILL-STEM TEST DATA

Well Name Hipp	Test No. 3
Well Number 2	Zone Tested KC
Company Richlan Drilling	Date 2/17/97
Comp. Rep. R. Schreiber	Tester Don Fabricius
Contractor Duke Drly	Ticket No. 3260
Location 36-17-12	Elevation

Recorder No. 3088 Clock Range 12 Recorder No. 4377 Clock Range 12

Depth 3088 Depth 3102

Initial Hydro Mud Press. 1519 Initial Hydro Mud Press. 1524

Initial Shut-in Press. 176 Initial Shut-in Press. 176

Initial Flow Press. 11-11 Initial Flow Press. 11-11

Final Flow Press. 11-11 Final Flow Press. 11-11

Final Shut-in Press. 94 Final Shut-in Press. 93

Final Hydro Mud Press. 1519 Final Hydro Mud Press. 152

Temperature _____ Tool Open Before I. S. I. 30 Mins.

Mud Weight 92.0 Viscosity 47 Initial Shut-in 30 Mins.

Fluid Loss 10 Flow Period 7 Mins.

Interval Tested 3101-06 Final Shut-in 15 Mins.

Top Packer Depth 3096 Surface Choke Size 1

Bottom Packer Depth 3101 Bottom Choke Size 3/4

Total Depth 3106 Main Hole Size 7 7/8

Drill Pipe Size 4 1/2 X H Wt. 16.60 Rubber Size 6 3/4

Drill Collar I. D. _____ Ft. Run _____

Recovery—Total Feet _____

Recovered 5 Feet Of _____ Mud

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Remarks Slid tool 3' to bottom weak blow dead in
15 min flushed tool no blow

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By _____
Owner, Operator or his Agent

DRILL-STEM TEST DATA

Well Name Hipp	Test No. 4
Well Number 2	Zone Tested KC
Company Richlan Drilling	Date 2/17/97
Comp. Rep. R. Schreiber	Tester Don Fabricius
Contractor Duke Drly	Ticket No. 3261
Location 36-17-12	Elevation

Recorder No. 3088 Clock Range 12 Recorder No. 4377 Clock Range 12
 Depth 3103 Depth 3107
 Initial Hydro Mud Press. 1519 Initial Hydro Mud Press. 1524
 Initial Shut-in Press. 943 Initial Shut-in Press. 950
 Initial Flow Press. 47-47 Initial Flow Press. 46-46
 Final Flow Press. 58-58 Final Flow Press. 58-58
 Final Shut-in Press. 943 Final Shut-in Press. 950
 Final Hydro Mud Press. 1519 Final Hydro Mud Press. 1524
 Temperature _____ Tool Open Before I. S. I. 30 Mins.
 Mud Weight 9.0 Viscosity 50 Initial Shut-in 30 Mins.
 Fluid Loss 9 Flow Period 60 Mins.
 Interval Tested 3087-3111 Final Shut-in 30 Mins.
 Top Packer Depth 3082 Surface Choke Size 1
 Bottom Packer Depth 3087 Bottom Choke Size 3/4
 Total Depth 3111 Main Hole Size 7 7/8
 Drill Pipe Size 4 1/2 X H Wt. 16.60 Rubber Size 6 3/4
 Drill Collar I. D. _____ Ft. Run _____
 Recovery—Total Feet _____
 Recovered 105 Feet Of Watery mud
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Remarks Weak building to fair blow thru-test

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By _____
Owner, Operator or bis Agent

DRILL-STEM TEST DATA

Well Name Hipp	Test No. 5
Well Number 2	Zone Tested KC
Company Richlan Drilling	Date 2/18/97
Comp. Rep. R. Schreiber	Tester Don Fabricius
Contractor Duke Drly	Ticket No. 3262
Location 36-17-12	Elevation

RECEIVED
MAY 22 2004
KCC WICHITA

Recorder No. <u>3088</u>	Clock Range <u>12</u>	Recorder No. <u>4377</u>	Clock Range <u>12</u>
Depth <u>3270</u>		Depth <u>3274</u>	
Initial Hydro Mud Press. <u>1692</u>		Initial Hydro Mud Press. <u>1695</u>	
Initial Shut-in Press. <u>813</u>		Initial Shut-in Press. <u>809</u>	
Initial Flow Press. <u>47-47</u>		Initial Flow Press. <u>46-46</u>	
Final Flow Press. <u>47-47</u>		Final Flow Press. <u>46-46</u>	
Final Shut-in Press. <u>754</u>		Final Shut-in Press. <u>751</u>	
Final Hydro Mud Press. <u>1692</u>		Final Hydro Mud Press. <u>1695</u>	
Temperature _____		Tool Open Before I. S. I. <u>30</u>	Mins.
Mud Weight <u>9.3</u>	Viscosity <u>47</u>	Initial Shut-in <u>30</u>	Mins.
Fluid Loss <u>9</u>		Flow Period <u>30</u>	Mins.
Interval Tested <u>3222-78</u>		Final Shut-in <u>30</u>	Mins.
Top Packer Depth <u>3217</u>		Surface Choke Size <u>1</u>	
Bottom Packer Depth <u>3222</u>		Bottom Choke Size <u>3/4</u>	
Total Depth <u>3278</u>		Main Hole Size <u>7 7/8</u>	
Drill Pipe Size <u>4 1/2 X H</u>	Wt. <u>16.60</u>	Rubber Size <u>6 3/4</u>	
Drill Collar I. D. _____	Ft. Run _____		
Recovery—Total Feet _____			
Recovered <u>30</u>	Feet Of <u>Oil Spotted mud</u>		
Recovered _____	Feet Of _____		
Recovered _____	Feet Of _____		
Recovered _____	Feet Of _____		

Remarks Very weak blow thru-test

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By _____
Owner, Operator or his Agent

ARROW TESTING COMPANY

P. O. BOX 1051

GREAT BEND, KANSAS 67530

DRILL-STEM TEST DATA

Well Name	Hipp	RECEIVED MAY 22 2002 KCC WICHITA	Test No.	6
Well Number	2		Zone Tested	KC & Cong
Company	Richlan Drilling		Date	2/19/97
Comp. Rep.	R. Schreiber		Tester	Don Fabricius
Contractor	Duke Drly		Ticket No.	3263
Location	36-17-12		Elevation	

Recorder No. 3088 Clock Range 12 Recorder No. 4377 Clock Range 12

Depth 3314 Depth 3318

Initial Hydro Mud Press. 1635 Initial Hydro Mud Press. 1638

Initial Shut-in Press. 125 Initial Shut-in Press. 129

Initial Flow Press. 47-47 Initial Flow Press. 46-46

Final Flow Press. 47-47 Final Flow Press. 46-46

Final Shut-in Press. 117 Final Shut-in Press. 117

Final Hydro Mud Press. 1635 Final Hydro Mud Press. 1638

Temperature _____ Tool Open Before I. S. I. 30 Mins.

Mud Weight 9.3 Viscosity 47 Initial Shut-in 30 Mins.

Fluid Loss 9 Flow Period 30 Mins.

Interval Tested 3258-3322 Final Shut-in 30 Mins.

Top Packer Depth 3253 Surface Choke Size 1

Bottom Packer Depth 3258 Bottom Choke Size 3/4

Total Depth 3322 Main Hole Size 7 7/8

Drill Pipe Size 4 1/2 X H Wt. 16.60 Rubber Size 6 3/4

Drill Collar I. D. _____ Ft. Run _____

Recovery—Total Feet _____

Recovered 20 Feet Of Thin watery mud slightly oil cut

Recovered 1 Feet Of free oil on top

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Remarks Very weak blow thru-test

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