

ARROW TESTING COMPANY

P. O. BOX 1051

GREAT BEND, KANSAS 67530

DRILL-STEM TEST DATA

Well Name	Unruh	Test No.	1
Well Number	1	Zone Tested	Arb
Company	Woodman-Iannitti-Pate Dombaugh	Date	1-12-92
Comp. Rep.	R. Dombaugh	Tester	Don Fabricius
Contractor	Woodman-Iannitti Drlg.	Ticket No.	3011
Location	30-21-15	Elevation	

Recorder No. 3088	Clock Range 12	Recorder No. 4377	Clock Range 12
Depth 3867		Depth 3871	
Initial Hydro Mud Press. 1981		Initial Hydro Mud Press. 1981	
Initial Shut-in Press. 1266		Initial Shut-in Press. 1260	
Initial Flow Press. 754-683		Initial Flow Press. 751-680	
Final Flow Press. 754-671		Final Flow Press. 751-669	
Final Shut-in Press. 1266		Final Shut-in Press. 1260	
Final Hydro Mud Press. 1981		Final Hydro Mud Press. 1981	
Temperature		Tool Open Before I. S. I. 30	Mins.
Mud Weight 9.3	Viscosity 55	Initial Shut-in 45	Mins.
Fluid Loss 11.6		Flow Period 30	Mins.
Interval Tested 3857-75		Final Shut-in 45	Mins.
Top Packer Depth 3852		Surface Choke Size 1½	
Bottom Packer Depth 3857		Bottom Choke Size 3/4"	
Total Depth 3875		Main Hole Size 7 7/8	
Drill Pipe Size 4½ X H	Wt. 16.60	Rubber Size 6 3/4	
Drill Collar I. D.	Ft. Run		
Recovery—Total Feet			
Recovered 75	Feet Of sulfur water		
Recovered	Feet Of		
Recovered	Feet Of		
Recovered	Feet Of		

Remarks

Gas to surface 1 min. - gauge 3,036,000 in 10 min. - 3,394,000

in 20 - 3,513,000 in 30 min. second open - 3,871,000

15 min. 3,623,000 in 30 min.

THIS ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED. CONDITIONS: It is expressly understood and agreed that the above described work shall be done under the exclusive control, direction and supervision of the owner or contractor. As a part of the consideration for this agreement, it is expressly understood and agreed that Arrow Testing Company shall not be responsible for damages or losses of any kind whatsoever occasioned by or incident to the use of the above described Tools, whether run or operated by customer, or by anyone employed directly or indirectly by Arrow Testing Company, nor whether resulting from the acts or omissions of Arrow Testing Company, or any of its agents, servants or employees in any way connected with or related to the use of such Tools.

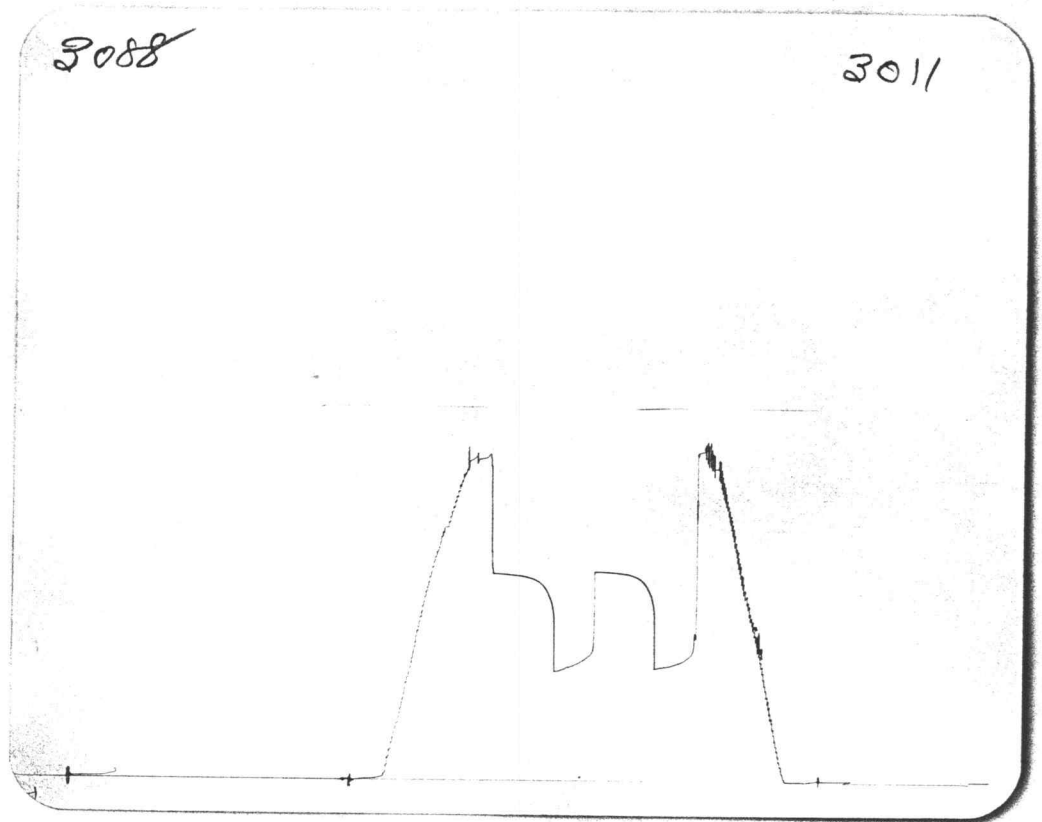
It is expressly understood and agreed that Arrow Testing Company, shall not be bound by any agreement, not herein contained, and no agent or representative connected with or employed by Arrow Testing Company has authority to alter or extend the terms of this agreement. I have read and understand the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

By _____

Owner, Operator or his Agent

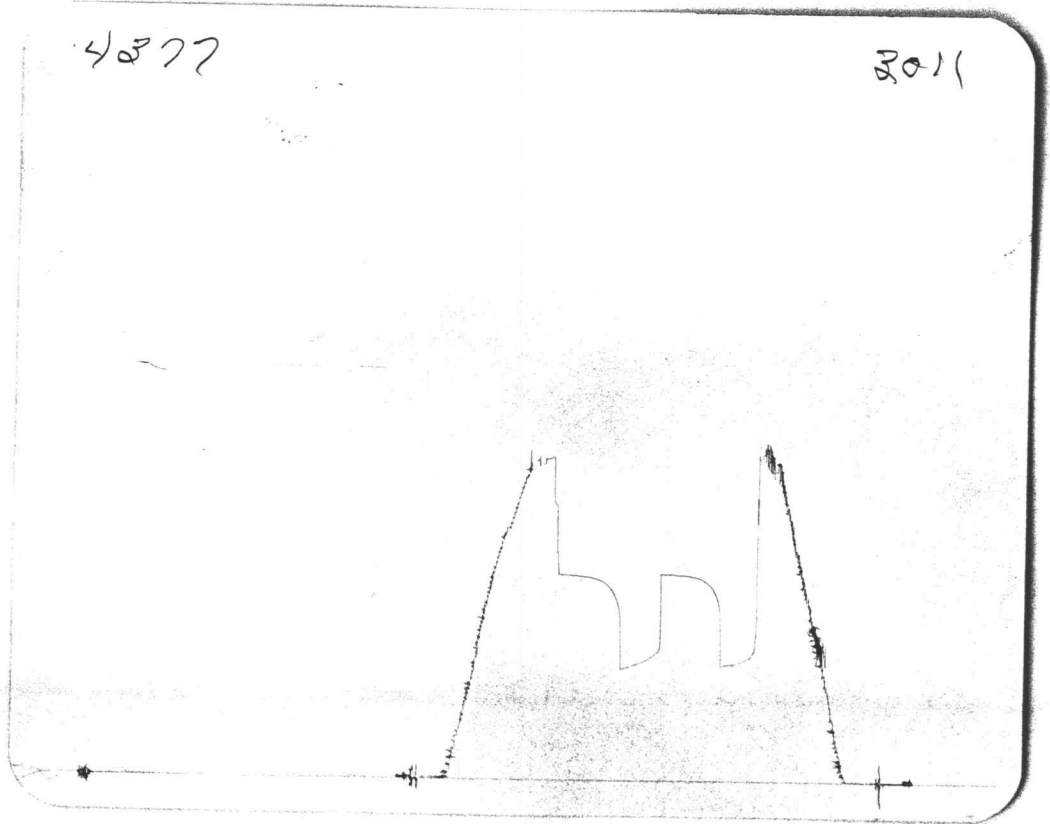
3088

3011



4277

3011



DRILL-STEM TEST DATA

Well Name	Unruh	Test No.	2
Well Number	1	Zone Tested	Arb
Company	Woodman-Iannitti-Pate Dombaugh	Date	1-13-92
Comp. Rep.	R. Dombaugh	Tester	Don Fabricius
Contractor	Woodman-Iannitti Drlg.	Ticket No.	3012
Location	30-21-15	Elevation	

Recorder No. 3088	Clock Range 12	Recorder No. 4377	Clock Range 12
Depth 3892		Depth 3896	
Initial Hydro Mud Press. 2220		Initial Hydro Mud Press. 2219	
Initial Shut-in Press. 1301		Initial Shut-in Press. 1295	
Initial Flow Press. 707-1174		Initial Flow Press. 704-1169	
Final Flow Press. 1243-1335		Final Flow Press. 1237-1329	
Final Shut-in Press. 1335		Final Shut-in Press. 1329	
Final Hydro Mud Press. 2220		Final Hydro Mud Press. 2219	
Temperature		Tool Open Before I. S. I. 30	Mins.
Mud Weight 9.6	Viscosity 61	Initial Shut-in 45	Mins.
Fluid Loss 9.6		Flow Period 60	Mins.
Interval Tested 3878-3900		Final Shut-in 60	Mins.
Top Packer Depth 3873		Surface Choke Size 1½	
Bottom Packer Depth 3878		Bottom Choke Size ¾"	
Total Depth 3900		Main Hole Size 7 7/8	
Drill Pipe Size 4½ X H Wt. 16.60		Rubber Size 6 ¾	
Drill Collar I. D.	Ft. Run		
Recovery—Total Feet			
Recovered 195	Feet Of oil cut water 40% oil		
Recovered 2700	Feet Of water		
Recovered	Feet Of		
Recovered	Feet Of		

Remarks

Strong blow gas to surface in 15 min. on initial. Shut in sprayed
mud & water - gas too small to measure on second open

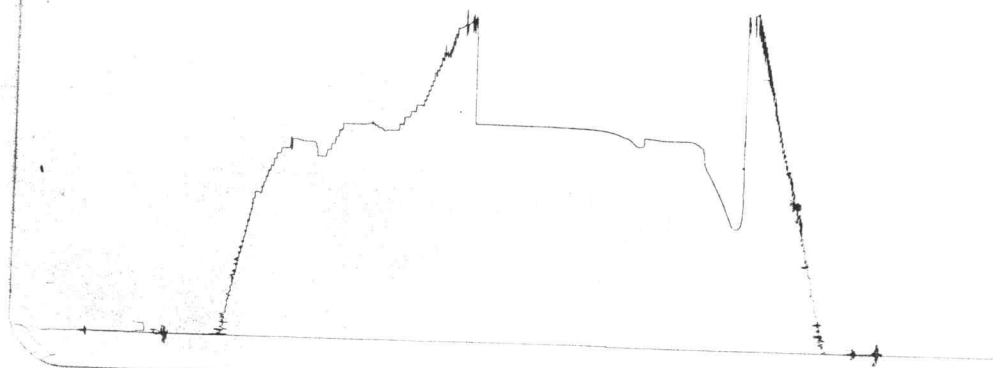
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By _____
Owner, Operator or his Agent

4377

3012



3088

3012

