

ARROW TESTING COMPANY

P. O. BOX 1051

GREAT BEND, KANSAS 67530

DRILL-STEM TEST DATA

Well Name	O'Hara	Test No.	1
Well Number	1	Zone Tested	Indian ~~Gore~~ ^{CAVE}
Company	Hershberger Enterprises Inc.	Date	8-26-73
Comp. Rep.	Bill Sladek	Tester	Don Fabricius
Contractor	H-30	Ticket No.	734
Location	30-24S-7W SE-SE-SW	Elevation	

Recorder No.	3088	Clock Range	12	Recorder No.	207	Clock Range	8
Depth	2063			Depth	2067		
Initial Hydro Mud Press.	1203			Initial Hydro Mud Press.	1220		
Initial Shut-in Press.	610			Initial Shut-in Press.	580		
Initial Flow Press.	35			Initial Flow Press.	0		
Final Flow Press.	46			Final Flow Press.	20		
Final Shut-in Press.	539			Final Shut-in Press.	510		
Final Hydro Mud Press.	1203			Final Hydro Mud Press.	1220		
Temperature	100			Tool Open Before I. S. I.	15	Mins.	
Mud Weight	10.5	Viscosity	38	Initial Shut-in	15	Mins.	
Fluid Loss	12.2			Flow Period	15	Mins.	
Interval Tested	2050-70			Final Shut-in	15	Mins.	
Top Packer Depth	2045			Surface Choke Size	1 1/4		
Bottom Packer Depth	2050			Bottom Choke Size	3/4		
Total Depth	2070			Main Hole Size	7 7/8		
Drill Pipe Size 4 1/2 FH	Wt. 1660			Rubber Size	6 3/4		
Drill Collar I. D.		Ft. Run					
Recovery—Total Feet	5						
Recovered	5	Feet Of	Mud				
Recovered		Feet Of					
Recovered		Feet Of					
Recovered		Feet Of					

Remarks

Very weak blow dead in 2 min. flush tool on sec. opening
 very weak blow dead in 2 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.

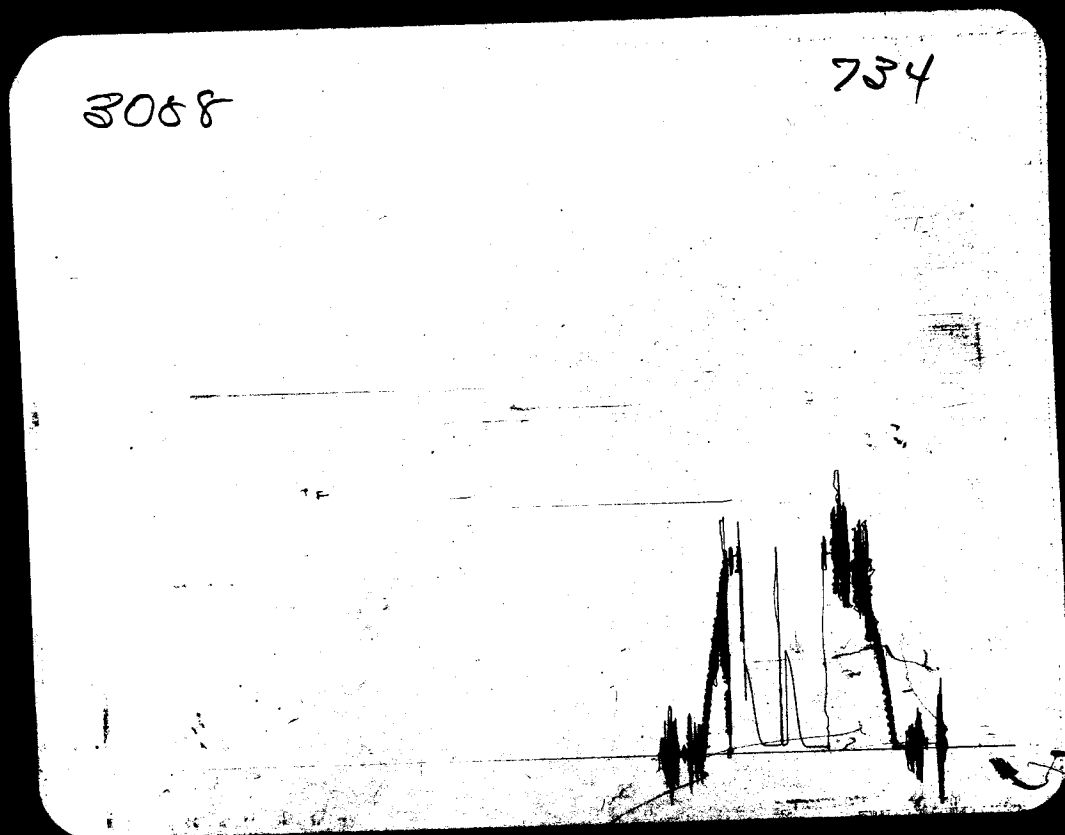
It is expressly understood and agreed that Arrow Testing Company, shall not be bound by any agreement, not herein contained, and no agent or representative connected with or employed by Arrow Testing Company has authority to alter or extend the terms of this agreement. I have read and understand the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

By

Owner, Operator or his Agent

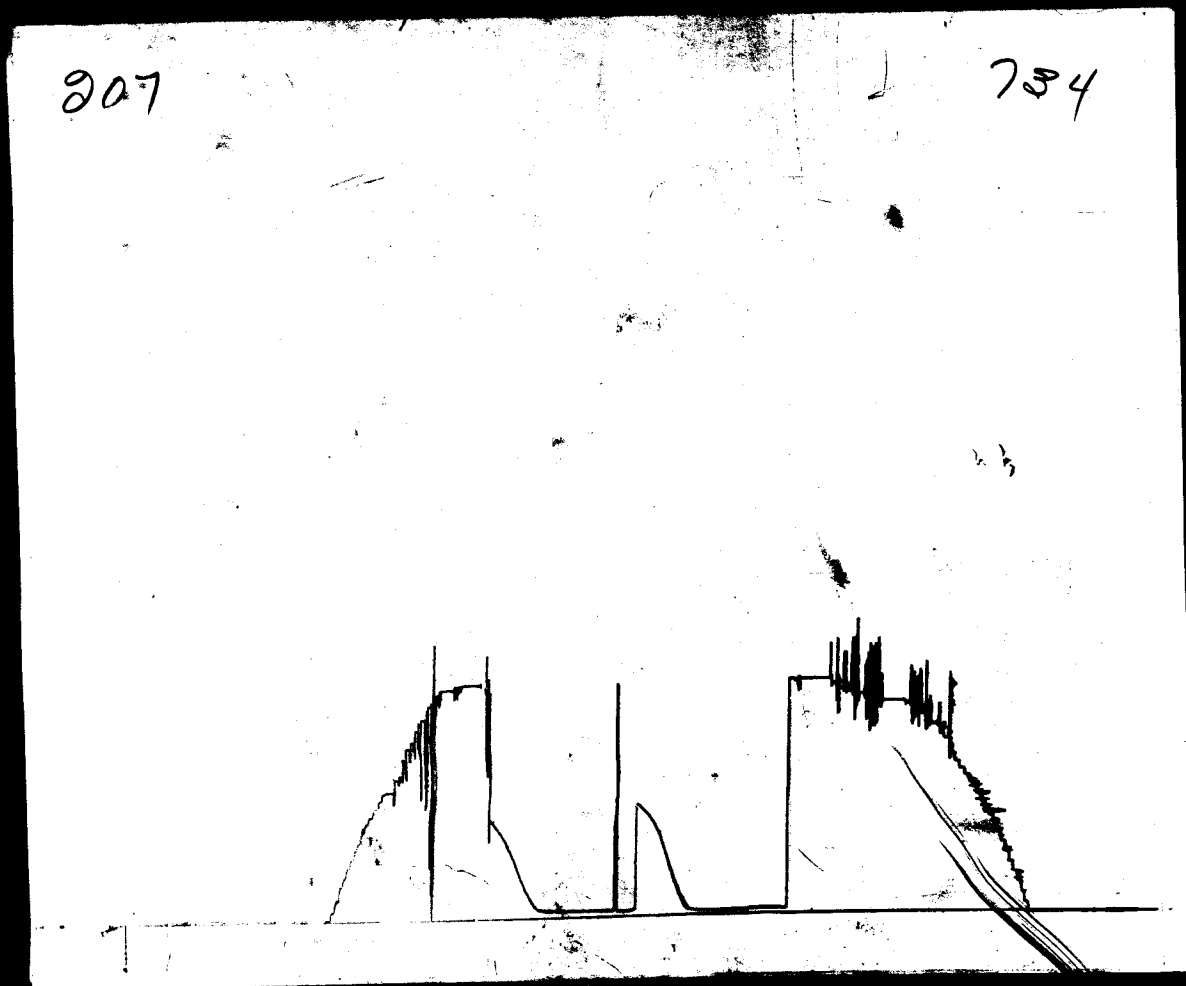
3058

734



207

734



DRILL-STEM TEST DATA

Well Name O'Hara	Test No. <u>2</u>
Well Number 1	Zone Tested Indian ~~Cave~~ ^{Cave} ~~Cave~~
Company Hershberger Enterprises Inc.	Date 8-26-73
Comp. Rep. Bill Sladek	Tester Don Fabricius
Contractor H-30	Ticket No. 735
Location	Elevation

Recorder No. 3088 Clock Range 12	Recorder No. 207 Clock Range 8
Depth 2065	Depth 2069
Initial Hydro Mud Press. 1180	Initial Hydro Mud Press. 1220
Initial Shut-in Press. 739	Initial Shut-in Press. 700
Initial Flow Press. 35	Initial Flow Press. 0
Final Flow Press. 35	Final Flow Press. 0
Final Shut-in Press. 586	Final Shut-in Press. 550
Final Hydro Mud Press. 1180	Final Hydro Mud Press. 1220
Temperature 100	Tool Open Before I. S. I. 15 Mins.
Mud Weight 10.5 Viscosity 38	Initial Shut-in 30 Mins.
Fluid Loss 12.2	Flow Period 15 Mins.
Interval Tested 2050-73	Final Shut-in 15 Mins.
Top Packer Depth 2045	Surface Choke Size 1 1/4"
Bottom Packer Depth 2050	Bottom Choke Size 3/4"
Total Depth 2073	Main Hole Size 7 7/8
Drill Pipe Size 4 1/2 FH Wt. 1660	Rubber Size 6 3/4
Drill Collar I. D. Ft. Run	
Recovery—Total Feet 10	
Recovered 10 Feet Of Mud	
Recovered Feet Of	
Recovered Feet Of	
Recovered Feet Of	

Remarks

Very weak blow dead in 15 min.

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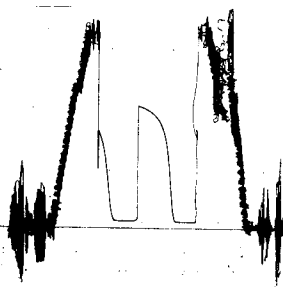
By _____

Owner, Operator or his Agent

5088

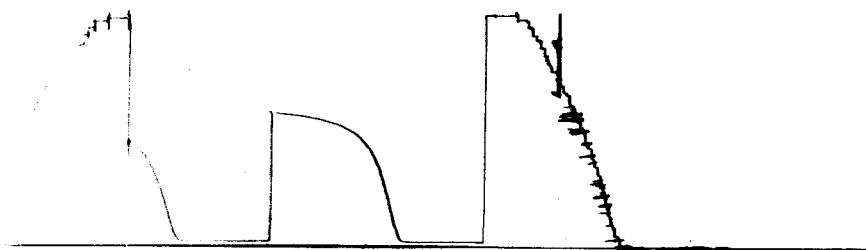
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1



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755



DRILL-STEM TEST DATA

Well Name	O'Hara	Test No.	3
Well Number	1	Zone Tested	Indian ^{Cave} ~~Gore~~
Company	Hershberger Enterprises Inc.	Date	8-26-73
Comp. Rep.	Bill Sladek	Tester	Don Fabricius
Contractor	H-30	Ticket No.	736
Location		Elevation	

Recorder No. <u>3088</u>	Clock Range <u>12</u>	Recorder No. <u>207</u>	Clock Range <u>8</u>
Depth <u>2070</u>		Depth <u>2074</u>	
Initial Hydro Mud Press. <u>1215</u>		Initial Hydro Mud Press. <u>1210</u>	
Initial Shut-in Press. <u>821</u>		Initial Shut-in Press. <u>760</u>	
Initial Flow Press. <u>58</u>		Initial Flow Press. <u>20</u>	
Final Flow Press. <u>140</u>		Final Flow Press. <u>130</u>	
Final Shut-in Press. <u>809</u>		Final Shut-in Press. <u>760</u>	
Final Hydro Mud Press. <u>1215</u>		Final Hydro Mud Press. <u>1210</u>	
Temperature <u>114</u>		Tool Open Before I. S. I. <u>30</u>	Mins.
Mud Weight <u>10.6</u>	Viscosity <u>40</u>	Initial Shut-in <u>30</u>	Mins.
Fluid Loss <u>14.2</u>		Flow Period <u>60</u>	Mins.
Interval Tested <u>2050-78</u>		Final Shut-in <u>30</u>	Mins.
Top Packer Depth <u>2045</u>		Surface Choke Size <u>1 1/4</u>	
Bottom Packer Depth <u>2050</u>		Bottom Choke Size <u>3/4"</u>	
Total Depth <u>2078</u>		Main Hole Size <u>7 7/8"</u>	
Drill Pipe Size <u>4 1/2 FH</u>	Wt. <u>1660</u>	Rubber Size <u>6 3/4</u>	
Drill Collar I. D. _____	Ft. Run _____		
Recovery—Total Feet <u>150</u>			
Recovered <u>150</u>	Feet Of <u>Muddy water</u>		
Recovered _____	Feet Of _____		
Recovered _____	Feet Of _____		
Recovered _____	Feet Of _____		

Remarks

Weak to fair blow thru test

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By _____
Owner, Operator or his Agent

3088

736



207

736

