



Home Office: Wichita, Kansas 67201
 P.O. Box 1599 (316) 262-5861

Company K & E Drilling, Inc. Lease & Well No. Roth "A" #2
 Elevation - Formation Fort Scott Effective Pay - Ft. Ticket No. 9842
 Date 3/24/81 Sec. 7 Twp. 18S Range 21W County Ness State Kansas
 Test Approved by D Monroe Western Representative Ray Schwager-Jeff Beauchamp

Formation Test No. 1 Interval Tested from 4185 ft. to 4224 ft. Total Depth 4350 ft.
 Packer Depth 4185 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
 Packer Depth 4224 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4187 ft. Recorder Number 13269 Cap. 4375
 Bottom Recorder Depth (Outside) 4190 ft. Recorder Number 13270 Cap. 4375
 Below Straddle Recorder Depth 4347 ft. Recorder Number - Cap. -

Drilling Contractor Abercrombie Rig #8 Drill Collar Length - I. D. - in.
 Mud Type Starch Viscosity 53 Weight Pipe Length 573 I. D. 2.7 in.
 Weight 9.6 Water Loss 22.0 cc. Drill Pipe Length 3718 I. D. 3.8 in.
 Chlorides - P.P.M. Test Tool Length 20 ft. Tool Size 4 1/2 in.
 Jars: Make WTC Serial Number 418 Anchor Length 39 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out No Surface Choke Size 5/8 in. Bottom Choke Size 5/8 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Fair blow throughout initial flow period. Final flow period weak - blow died in 40 minutes

Recovered 150 ft. of mud - spotty oil show
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: Slid tool 12 ft to bottom - plugged tool

Time Set Packer(s) 8:30 ~~A.M.~~ P.M. Time Started Off Bottom 12:30 ~~P.M.~~ A.M. Maximum Temperature 112
 Initial Hydrostatic Pressure (A) 2143 P.S.I.
 Initial Flow Period Minutes 75 (B) 98 P.S.I. to (C) 87 P.S.I.
 Initial Closed In Period Minutes 54 (D) 1370 P.S.I.
 Final Flow Period Minutes 65 (E) 106 P.S.I. to (F) 112 P.S.I.
 Final Closed In Period Minutes 66 (G) 1086 P.S.I.
 Final Hydrostatic Pressure (H) 2143 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 3/24/81

Test Ticket No. 9842

Recorder No. 13269 Capacity 4375

Location 4187 Ft.

Clock No. - Elevation - Well Temperature 112 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2143</u> P.S.I.	Open Tool	<u>8:30P</u> M	
B First Initial Flow Pressure	<u>98</u> P.S.I.	First Flow Pressure	<u>60</u> Mins.	<u>75</u> Mins.
C First Final Flow Pressure	<u>87</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>54</u> Mins.
D Initial Closed-in Pressure	<u>1370</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>65</u> Mins.
E Second Initial Flow Pressure	<u>106</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>66</u> Mins.
F Second Final Flow Pressure	<u>112</u> P.S.I.			
G Final Closed-in Pressure	<u>1086</u> P.S.I.			
H Final Hydrostatic Mud	<u>2143</u> P.S.I.			

* PRESSURES ARE ALL QUESTIONABLE DUE TO PLUGGED ANCHOR.

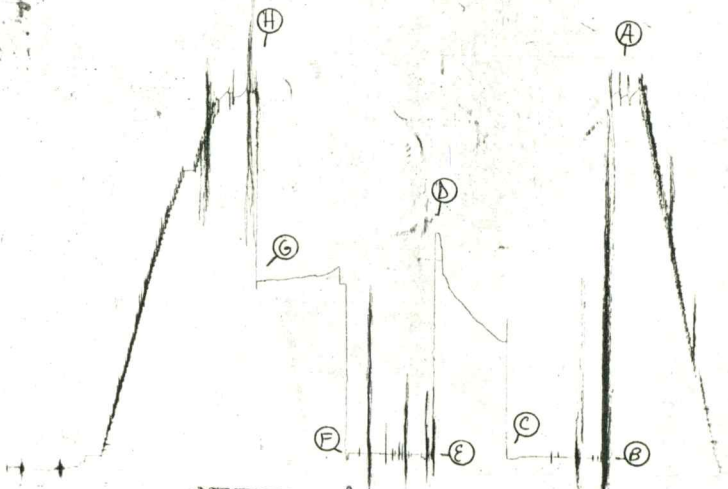
PRESSURE BREAKDOWN

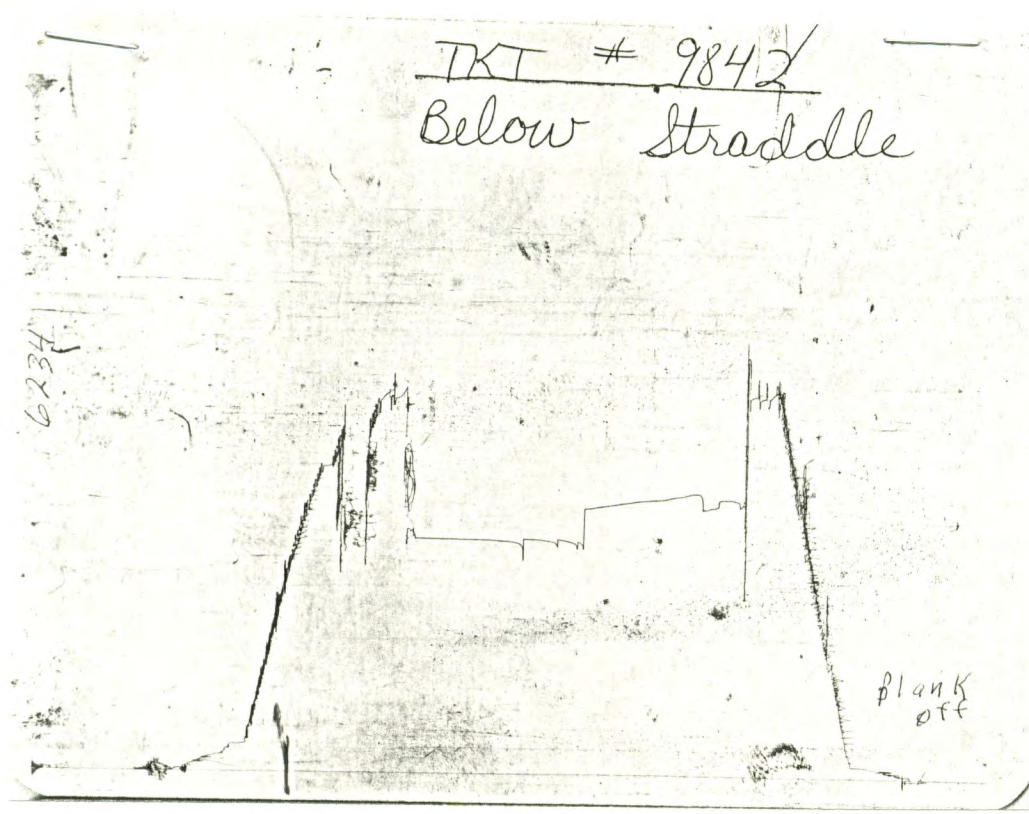
Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of <u>5</u> mins. and a final inc. of <u>0</u> Min.		of <u>3</u> mins. and a final inc. of <u>0</u> Min.		of <u>5</u> mins. and a final inc. of <u>0</u> Min.		of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1 <u>0</u>	<u>98</u>	<u>0</u>	<u>87</u>	<u>0</u>	<u>106</u>	<u>0</u>	<u>112</u>	
P 2 <u>5</u>	<u>PLUGGED</u>	<u>3</u>	<u>754</u>	<u>3</u>	<u>106</u>	<u>3</u>	<u>1077</u>	
P 3 <u>10</u>	<u>98</u>	<u>6</u>	<u>766</u>	<u>6</u>	<u>106</u>	<u>6</u>	<u>1167</u>	
P 4 <u>15</u>	<u>98</u>	<u>9</u>	<u>789</u>	<u>9</u>	<u>106</u>	<u>9</u>	<u>1149</u>	
P 5 <u>20</u>	<u>96</u>	<u>12</u>	<u>810</u>	<u>12</u>	<u>106</u>	<u>12</u>	<u>1135</u>	
P 6 <u>25</u>	<u>PLUGGED</u>	<u>15</u>	<u>828</u>	<u>15</u>	<u>106</u>	<u>15</u>	<u>1126</u>	
P 7 <u>30</u>	<u>99</u>	<u>18</u>	<u>852</u>	<u>18</u>	<u>106</u>	<u>18</u>	<u>1121</u>	
P 8 <u>35</u>	<u>99</u>	<u>21</u>	<u>866</u>	<u>21</u>	<u>106</u>	<u>21</u>	<u>1116</u>	
P 9 <u>40</u>	<u>100</u>	<u>24</u>	<u>888</u>	<u>24</u>	<u>108</u>	<u>24</u>	<u>1123</u>	
P10 <u>45</u>	<u>101</u>	<u>27</u>	<u>919</u>	<u>27</u>	<u>112</u>	<u>27</u>	<u>1119</u>	
P11 <u>50</u>	<u>101</u>	<u>30</u>	<u>949</u>	<u>30</u>	<u>Plugged</u>	<u>30</u>	<u>1113</u>	
P12 <u>55</u>	<u>101</u>	<u>33</u>	<u>979</u>	<u>33</u>	<u>112</u>	<u>33</u>	<u>1108</u>	
P13 <u>60</u>	<u>101</u>	<u>36</u>	<u>997</u>	<u>36</u>	<u>112</u>	<u>36</u>	<u>1108</u>	
P14 <u>65</u>	<u>101</u>	<u>39</u>	<u>1026</u>	<u>39</u>	<u>112</u>	<u>39</u>	<u>1105</u>	
P15 <u>70</u>	<u>88</u>	<u>42</u>	<u>1064</u>	<u>42</u>		<u>42</u>	<u>1101</u>	
P16 <u>75</u>	<u>87</u>	<u>45</u>	<u>1122</u>	<u>45</u>		<u>45</u>	<u>1096</u>	
P17		<u>48</u>	<u>1290</u>	<u>48</u>		<u>48</u>	<u>1094</u>	
P18		<u>51</u>	<u>1370</u>	<u>51</u>		<u>51</u>	<u>1094</u>	
P19		<u>54</u>	<u>1370</u>	<u>54</u>		<u>54</u>	<u>1096</u>	
P20						<u>57</u>	<u>1094</u>	
						<u>60</u>	<u>1088</u>	
						<u>63</u>	<u>1087</u>	
						<u>66</u>	<u>1086</u>	

TKT # 9842

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13269





This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2143	2143	PSI
(B) First Initial Flow Pressure	88	98	PSI
(C) First Final Flow Pressure	88	87	PSI
(D) Initial Closed-in Pressure	1357	1370	PSI
(E) Second Initial Flow Pressure	99	106	PSI
(F) Second Final Flow Pressure	99	112	PSI
(G) Final Closed-in Pressure	1094	1086	PSI
(H) Final Hydrostatic Mud	2143	2143	PSI

FLUID SAMPLE DATA				Date	3-25-81	Ticket Number	827763
Sampler Pressure _____ P.S.I.G. at Surface				Kind of D.S.T.	ON BOTTOM STRADDLE	Halliburton Location	NESS CITY
Recovery: Cu. Ft. Gas _____				Tester	MR. THOMPSON	Witness	MR. HEARTING
cc. Oil _____				Drilling Contractor	ABERCROMBIE DRILLING COMPANY #8		bj
cc. Water _____				EQUIPMENT & HOLE DATA			
cc. Mud _____				Formation Tested	Fort Scott		
Tot. Liquid cc. _____				Elevation	2239' Washdown _____ Ft.		
Gravity	40	° API @	60	Net Productive Interval	_____ Ft.		
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From	Kelly Bushing _____ Ft.		
RESISTIVITY _____ °F. _____ ppm				Total Depth	4350' _____ Ft.		
				CHLORIDE CONTENT _____ ppm			
Recovery Water _____ @ _____ °F. _____ ppm				Drill Collar Length	527' FW I.D. 2.764" FW		
Recovery Mud _____ @ _____ °F. _____ ppm				Drill Pipe Length	3625' I.D. 3.826"		
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm				Packer Depth(s)	4179'-4185'-4223' _____ Ft.		
Mud Pit Sample _____ @ _____ °F. _____ ppm				Depth Tester Valve	4162' _____ Ft.		
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm							
Mud Weight 9.7 vis 51 sec.							
Cushion		TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke. 75"	
Recovered		10	Feet of	free oil.			
Recovered		60	Feet of	heavy oil cut mud.			
Recovered		68	Feet of	oil cut mud.			
Recovered			Feet of				
Recovered			Feet of				
Remarks SEE PRODUCTION TEST DATA SHEET....GRINDOUT: TOP - 70% Oil-3% water & 27% mud. BOTTOM - 30% Oil - 2% water and 68% mud....							
TEMPERATURE		Gauge No. 528	Gauge No. 684	Gauge No.	TIME		
Est. 112 °F.		Depth: 4164' Ft.	Depth: 4347' Ft.	Depth: _____ Ft.	(00:00-24:00 hrs.)		
Actual _____ °F.		12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 1405		
		Blanked Off NO	Blanked Off YES	Blanked Off	Opened Bypass 1905		
		Pressures		Pressures		Pressures	
		Field	Office	Field	Office	Field	Office
Initial Hydrostatic		2175	2175.0	2254.4		Reported	Computed
First Period	Flow Initial	52	54.5			Minutes	Minutes
	Flow Final	73	80.4			_____	_____
	Closed in	777	783.5	Hydrostatic		60	60
Second Period	Flow Initial	87	88.2	Release: 1702.2		90	90
	Flow Final	104	102.9			_____	_____
	Closed in	773	774.9			60	60
Third Period	Flow Initial					90	91
	Flow Final					_____	_____
	Closed in					_____	_____
Final Hydrostatic		2126	2136.7	2213.6		_____	_____

Legal Location Sec. - Twp. - Rng. 7 18S 21
 Lease Name ROTH A
 Well No. 2
 Test No. 2
 Tasted Interval 4185' to 4223'
 County NESS
 State KANSAS
 Lease Owner/Company Name K & E DRILLING INCORPORATED

FORMATION TEST DATA

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Gauge No. 528		Depth 4164'		Clock No. 3121		12 hour		Ticket No. 827763	
First Flow Period		First Closed In Pressure		Second Flow Period		Second Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$
0	.0000	80.4	.0000	88.2	.0000	102.9	.0000		
1	.0668	120.2	.0403	88.2	.0668	164.3	.0467*		
2	.1337	361.6	.0806	90.8	.1337	352.0	.0867		
3	.2005	643.4	.1209	93.4	.2005	592.7	.1267		
4	.2673	715.6	.1612	96.8	.2673	689.0	.1668		
5	.3342	740.5	.2015	99.4	.3342	698.4	.2068		
6	.4010	754.2	.2418	102.9	.4010	741.4	.2468		
7		762.8	.2821			749.9	.2868		
8		768.8	.3224			756.8	.3268		
9		773.1	.3627			760.3	.3669		
10		774.9	.4030			762.8	.4069		
11		777.4	.4433			765.4	.4469		
12		780.0	.4836			768.0	.4869		
13		780.9	.5239			769.7	.5269		
14		781.7	.5642			771.4	.5670		
15		783.5	.6050			774.9	.6070		

Gauge No. 684		Depth 4347'		Clock No. 4205		12 hour	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$
0							
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
Reading Interval	10	6		10		6	

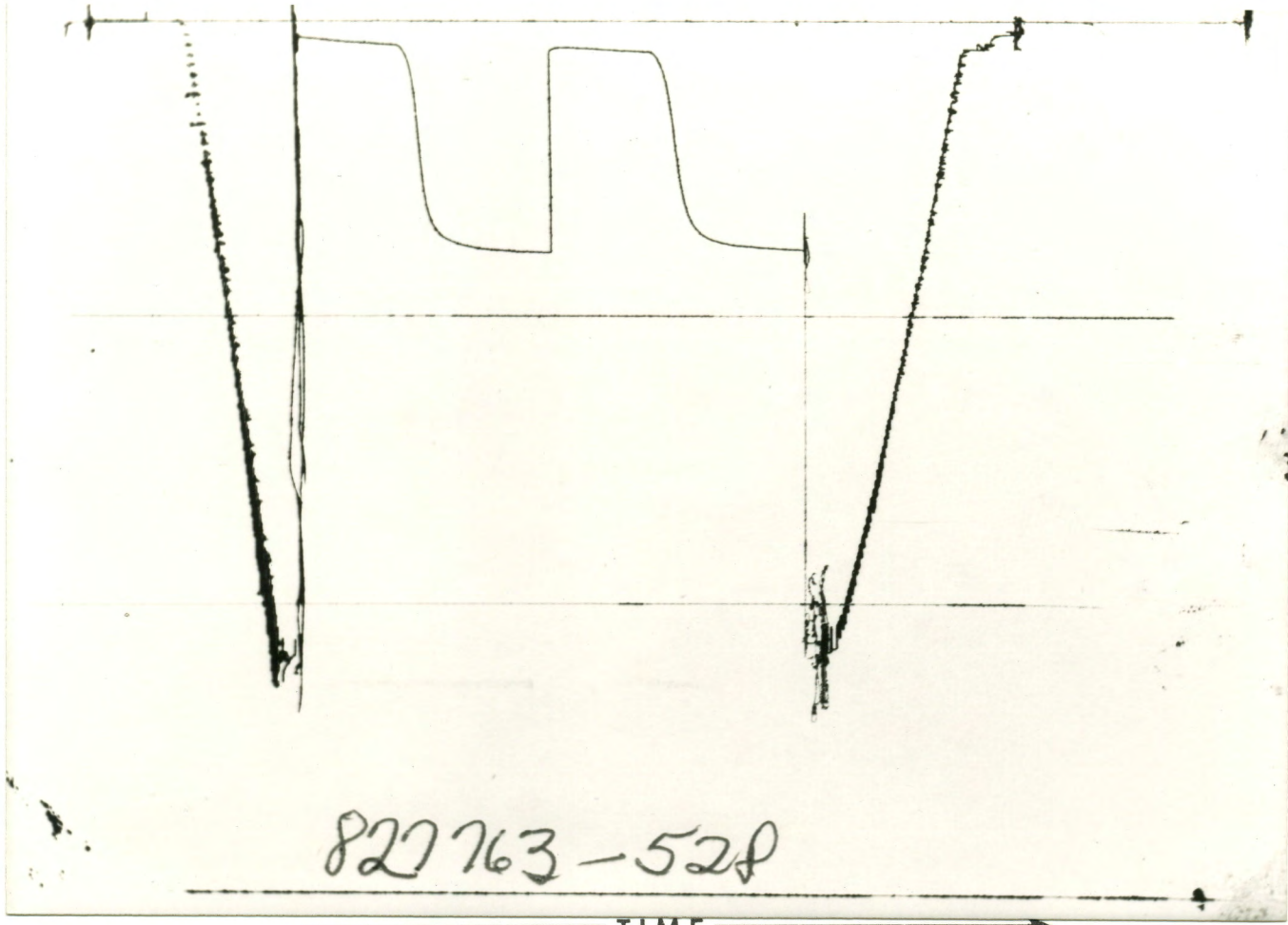
* INTERVAL = 7 MINUTES

REMARKS:

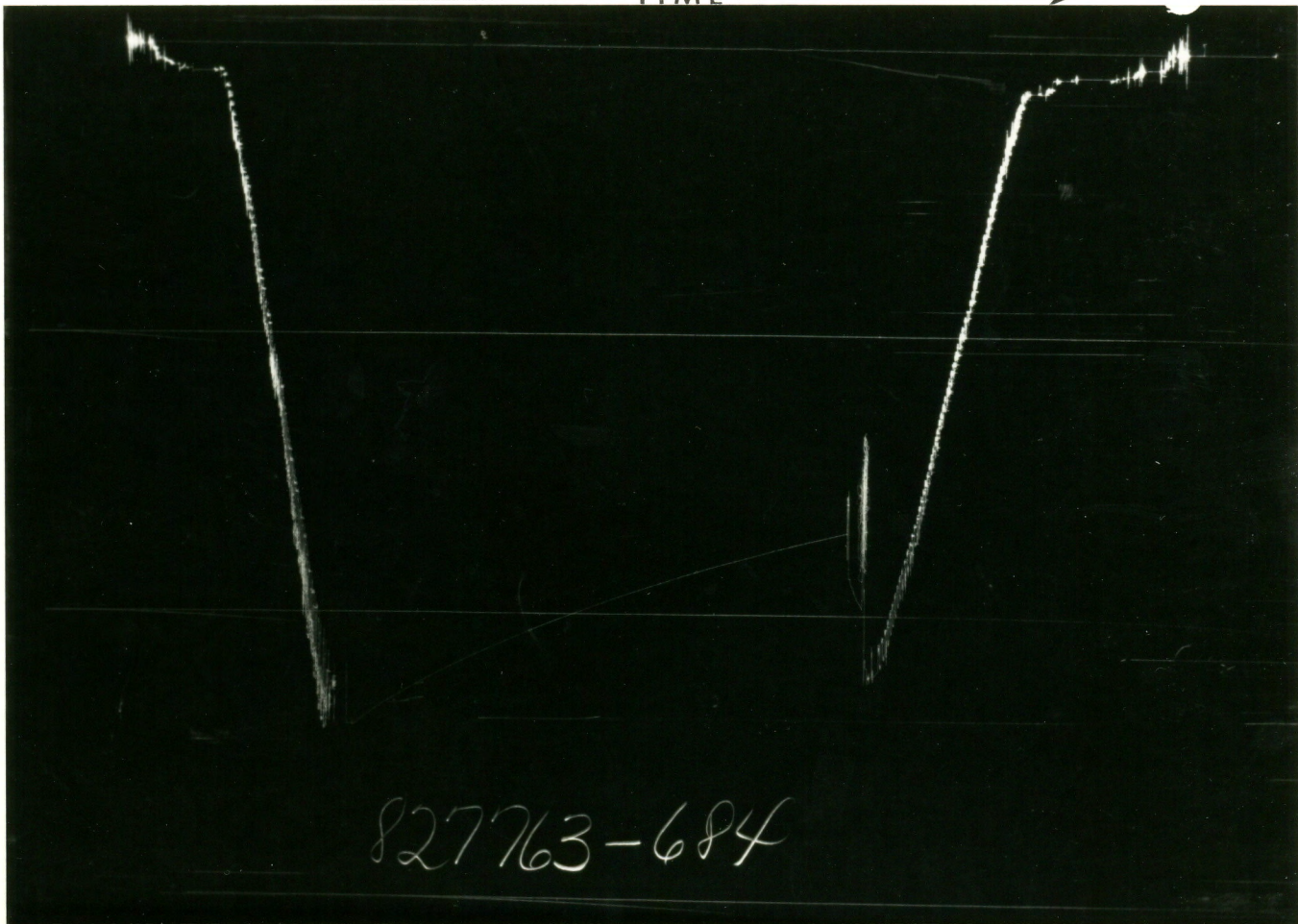
HYDROSTATIC RELEASE: 1702.2

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Drill Collars				
Reversing Sub XH	5.25"	3.00"	1.00'	4057'
Water Cushion Valve				
Drill Pipe	4.50"	3.826"	3625'	
Drill Collars FLEX WEIGHT	4.50"	2.764"	527'	
Handling Sub & Choke Assembly SUBS	5.00"	3.00"	3.00'	
Dual CIP Valve	5.00"	.87"	6.00'	4152'
Dual CIP Sampler				
Hydro-Spring Tester	5.00"	.75"	5.00'	4162'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5.00"	3.06"	4.00'	4164'
Hydraulic Jar	5.00"	1.75"	5.00'	
VR Safety Joint	5.00"	2.44"	3.00'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	6.00'	4179'
Distributor				
Packer Assembly	6.75"	1.53"	6.00'	4185'
Flush Joint Anchor	5.00"	3.84"	32'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly	6.75"	1.53"	6.00'	4223'
Anchor Pipe Safety Joint				
Side Wall Anchor SUBS	5.00"	3.00"	5.00'	
Drill Collars FLEX WEIGHT	4.50"	2.764"	95'	
Flush Joint Anchor	5.00"	3.84"	21'	
Blanked-Off B.T. Running Case	5.00"	2.44"	4.00'	4347'
Total Depth				4350'

PRESSURE ↓



827763-528



827763-684

Each Horizontal Line Equal to 1000 p.s.i.