



Home Office: Great Bend, Kansas
P. O. Box 793 Swift 3-7903

TIGHT HOLE

Company Bowers Drilling Company Lease & Well No. Barker #1-A
Elevation 1657 Kelly Bushings Formation Kansas City Ticket Number 7805
Date Jan. 11, 1967 Sec. 35 Twp. 27 Range 12 County Pratt State Kansas
Test Approved by Robert E. McCann Western Representative Leon Elmore

Formation Test No. 1 O.K. Misrun _____ Interval Tested From 3635' to 3652' Total Depth 3652'
Size Main Hole 7 7/8 Rat Hole _____ Conv. B.T. _____ Damaged Yes No _____ Conv. _____ B.T. Damaged Yes No _____
Packer Depth 3630 Ft. Size 6 3/4 Packer Depth 3635 Ft. Size 6 3/4
Straddle Yes No _____ Conv. _____ B.T. _____ Damaged Yes _____ No _____

Tool Size 5 1/2 OD Tool Jt. Size 4 1/2 FH Anchor Length 17 Ft. Size 5 1/2 OD
Packer Depth _____ Ft. Size _____
RECORDERS Depth 3644 Ft. Clock No. 5665 Depth 3647 Ft. Clock No. 8377
Top Make Kuster Cap. 4400 No. 2603 ~~Inside~~ Outside Bottom Make Kuster Cap. 4200 No. 1559 ~~Inside~~ Outside
Below Straddle: Depth _____ Clock No. _____ Outside Depth _____ Ft. Clock No. _____ Outside
Top Make _____ Cap. _____ No. _____ Inside Bottom Make _____ Cap. _____ No. _____ Outside
Time Set Packer 9:26 A M

Tool Open I.F.P. From 9:28 M to 9:37 M Hr. 9 Min. From (B) 62 P.S.I. To (C) 55 P.S.I.
Tool Closed I.C.I.P. From 9:37 M. to 10:07 M. Hr. 30 Min. (D) 1295 P.S.I.
Tool Open F.F.P. From 10:07 M. to 11:37 M. 1 Hr. 30 Min. From (E) 43 P.S.I. To (F) 53 P.S.I.
Tool Closed F.C.I.P. From 11:37 M. to 12:07 M. Hr. 30 Min. (G) 1283 P.S.I.
Initial Hydrostatic Pressure (A) 2073 P.S.I. Final Hydrostatic Pressure (H) 2028 P.S.I.

SURFACE Size Choke 3/4 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
(SEE ATTACHED SHEET) _____ M. _____
_____ M. _____

BLOW Strong Bottom Choke Size 3/4 In.
Did Well Flow Yes No _____ Recovery Total Ft. 60' mud

Reversed Out Yes No _____ Mud Type starch Viscosity 39 Weight 10 Maximum Temp. 120 °F
EXTRA EQUIPMENT: Dual Packers yes Safety Joint yes Jars: Size 4 1/2 OD Make Bowen Ser. No. 2955
Type Circ. Sub. plug Did Tool Plug? no Where? _____ Did Packer Hold? yes
Length Drill Pipe 2501 ft. I.D. Drill Pipe 3.8 in Length Weight Pipe 746 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 130 ft.
I. D. Drill Collars 2 1/4 in. Length D.S.T. Tool 46 ft.

Remarks Gas to surface 6 minutes. - 151,400



P. O. BOX 793
GREAT BEND, KANSAS

COMPANY Bowers Drilling Company LEASE & WELL NO. Barker #1-A

TEST NO. 1 INTERVAL TESTED FROM 3635' TO 3652'

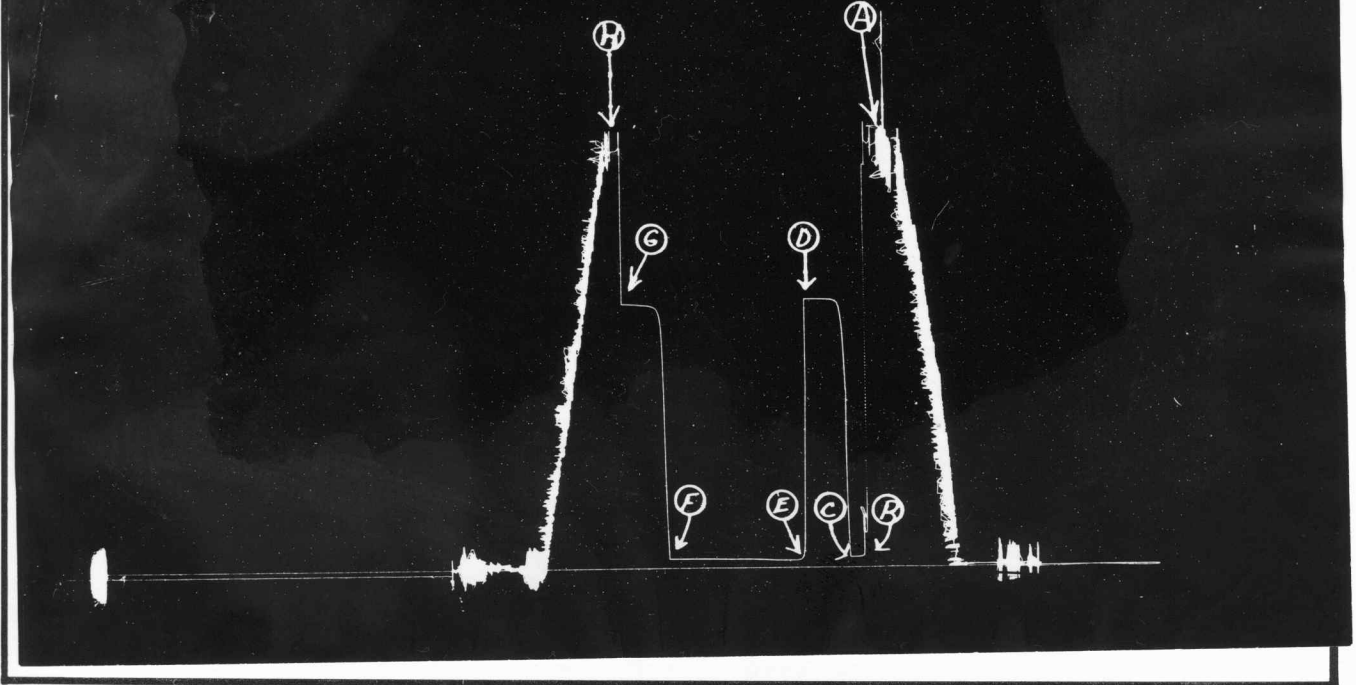
TIME PRE-FLOW	Ins. of water MAX PRESS. P.S.F.	DESCRIPTION OF FLOW
10 minutes	5	77,570
20 "	7	91,110
30	10	109,700
40	11.5	115,372
50	12	121,400
60	14	129,200
SECOND FLOW		
70	15	134,200
80	17.5	145,500
90	19	151,400

SIZE CHOKE 3/4 SURFACE IN. 3/4 BOTTOM IN.

REMARKS Gas to surface in six minutes.

Bowers Drlg Co.
Barker A-1

TKT-7805
Test #1



This is an actual photograph of recorder chart.

POINT	PRESSURE	
(A) Initial Hydrostatic Mud	2073	PSI
(B) First Initial Flow Pressure	62	PSI
(C) First Final Flow Pressure	55	PSI
(D) Initial Closed-in Pressure	1295	PSI
(E) Second Initial Flow Pressure	43	PSI
(F) Second Final Flow Pressure	53	PSI
(G) Final Closed-in Pressure	1283	PSI
(H) Final Hydrostatic Mud	2028	PSI



TIGHT HOLE

Home Office: Great Bend, Kansas
P. O. Box 793 Swift 3-7903

Company **Bowers Drilling Company** Lease & Well No. **Barker #A-1**
Elevation **1657 Kelly Bushings** Formation **Kansas City** Ticket Number **7806**
Date **Jan. 13, 1967** Sec. **35** Twp. **27** Range **12** County **Pratt** State **Kansas**
Test Approved by **Robert E. McCann** Western Representative **Leon Elmore**

Formation Test No. **2** O.K. Misrun Interval Tested From **3803'** to **3822'** Total Depth **3822'**
Size Main Hole **7 7/8** Rat Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Packer Depth **3798** Ft. Size **6 3/4** Packer Depth **3803** Ft. Size **6 3/4**
Straddle Yes No Conv. B.T. Damaged Yes No

Tool Size **5 1/2 OD** Tool Jt. Size **4 1/2 FH** Anchor Length **19** Ft. Size **5 1/2 OD**
RECORDERS Depth **3812** Ft. Clock No. **5665** Depth **3815** Ft. Clock No. **8377**
Top Make **Kuster** Cap. **4400** No. **2603** Inside ~~Outside~~ Bottom Make **Kuster** Cap. **4200** No. **1559** ~~Inside~~ Outside
Below Straddle: Depth Clock No. Outside Depth Ft. Clock No. Outside
Top Make Cap. No. Inside Bottom Make Cap. No. Inside
Time Set Packer **5:38 A** M

Tool Open I.F.P. From **5:40** M to **5:45** M Hr. **5** Min. From (B) **171** P.S.I. To (C) **171** P.S.I.
Tool Closed I.C.I.P. From **5:45** M. to **6:15** M. Hr. **30** Min. (D) **1337** P.S.I.
Tool Open F.F.P. From **6:15** M. to **7:45** M. **1** Hr. **30** Min. From (E) **263** P.S.I. To (F) **687** P.S.I.
Tool Closed F.C.I.P. From **7:45** M. to **8:30** M. Hr. **45** Min. (G) **1226** P.S.I.
Initial Hydrostatic Pressure (A) **2177** P.S.I. Final Hydrostatic Pressure (H) **2170** P.S.I.

SURFACE Size Choke **3/4** In. Max. Press. P.S.I. Time Description of Flow
INFORMATION _____ M. _____
_____ M. _____
_____ M. _____

BLOW **Strong - Surging** Bottom Choke Size **3/4** In.
Did Well Flow Yes No Recovery Total Ft. **1546' free oil ; 300' muddy oil; 200' water**

Reversed Out Yes No Mud Type **starch** Viscosity **46** Weight **10** Maximum Temp. **123** °F
EXTRA EQUIPMENT: Dual Packers **yes** Safety Joint Jars: Size Make Ser. No.
Type Circ. Sub. **plug** Did Tool Plug? **no** Where? Did Packer Hold? **yes**
Length Drill Pipe **2671** I.D. Drill Pipe **3.8** in Length Weight Pipe **746** I.D. Weight Pipe **2.7** in. Length Drill Collars **130** ft.
I. D. Drill Collars **2 1/4** in. Length D.S.T. Tool **39** ft.

Remarks **Gas to surface in 2 minutes.**

WESTERN TESTING CO., INC.
Pressure Data

Date January 13, 1967

Test Ticket No. 7806

Recorder No. 2603

Capacity 4400

Location 3812 Ft.

Clock No. 5665

Elevation 1657 Kelly Bushings

Well Temperature 123 °F

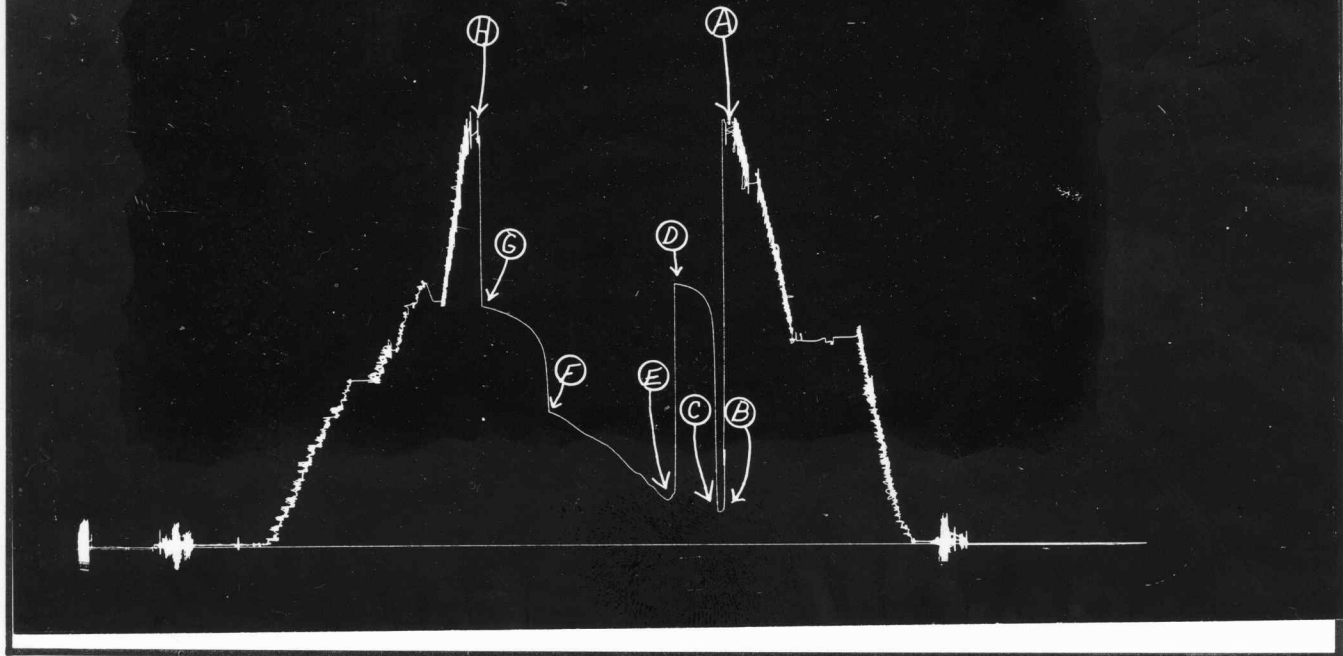
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2177</u> P.S.I.	Opened Tool	<u>5:38 A</u> M	
B First Initial Flow Pressure	<u>171</u> P.S.I.	First Flow Pressure	<u>5</u> Mins.	<u>5</u> Mins.
C First Final Flow Pressure	<u>171</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1337</u> P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>89</u> Mins.
E Second Initial Flow Pressure	<u>263</u> P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
F Second Final Flow Pressure	<u>687</u> P.S.I.			
G Final Closed-in Pressure	<u>1226</u> P.S.I.			
H Final Hydrostatic Mud	<u>2170</u> P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Press.	Initial Shut-In	Second Flow Pressure	Final Shut-In			
	Breakdown: <u>1</u> Inc. of <u>5</u> mins. and a final inc. of <u>=</u> Min.	Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>=</u> Min.	Breakdown: <u>17</u> Inc. of <u>5</u> mins. and a final inc. of <u>4</u> Min.	Breakdown: <u>15</u> Inc. of <u>3</u> mins. and a final inc. of <u>=</u> Min.			
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>171</u>	<u>0</u>	<u>171</u>	<u>0</u>	<u>263</u>	<u>0</u>	<u>687</u>
P 2	<u>171</u>	<u>3</u>	<u>1015</u>	<u>5</u>	<u>234</u>	<u>3</u>	<u>957</u>
P 3		<u>6</u>	<u>1204</u>	<u>10</u>	<u>254</u>	<u>6</u>	<u>1033</u>
P 4		<u>9</u>	<u>1255</u>	<u>15</u>	<u>301</u>	<u>9</u>	<u>1074</u>
P 5		<u>12</u>	<u>1284</u>	<u>20</u>	<u>341</u>	<u>12</u>	<u>1106</u>
P 6		<u>15</u>	<u>1301</u>	<u>25</u>	<u>370</u>	<u>15</u>	<u>1128</u>
P 7		<u>18</u>	<u>1313</u>	<u>30</u>	<u>401</u>	<u>18</u>	<u>1144</u>
P 8		<u>21</u>	<u>1321</u>	<u>35</u>	<u>446</u>	<u>21</u>	<u>1159</u>
P 9		<u>24</u>	<u>1328</u>	<u>40</u>	<u>484</u>	<u>24</u>	<u>1170</u>
P10		<u>27</u>	<u>1333</u>	<u>45</u>	<u>517</u>	<u>27</u>	<u>1182</u>
P11		<u>30</u>	<u>1337</u>	<u>50</u>	<u>538</u>	<u>30</u>	<u>1190</u>
P12				<u>55</u>	<u>559</u>	<u>33</u>	<u>1199</u>
P13				<u>60</u>	<u>581</u>	<u>36</u>	<u>1209</u>
P14				<u>65</u>	<u>610</u>	<u>39</u>	<u>1216</u>
P15				<u>70</u>	<u>639</u>	<u>42</u>	<u>1222</u>
P16				<u>75</u>	<u>665</u>	<u>45</u>	<u>1226</u>
P17				<u>80</u>	<u>676</u>		
P18				<u>85</u>	<u>683</u>		
P19				<u>89</u>	<u>687</u>		
P20							

*Bowers Dring Co.
Barke A-1*

*TKT-7806
Test #2*



This is an actual photograph of recorder chart.

POINT	PRESSURE	
(A) Initial Hydrostatic Mud	2177	PSI
(B) First Initial Flow Pressure	171	PSI
(C) First Final Flow Pressure	171	PSI
(D) Initial Closed-in Pressure	1337	PSI
(E) Second Initial Flow Pressure	263	PSI
(F) Second Final Flow Pressure	687	PSI
(G) Final Closed-in Pressure	1226	PSI
(H) Final Hydrostatic Mud	2170	PSI

TIGHT HOLE



Home Office: Great Bend, Kansas
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Company Bowers Drilling Company Lease & Well No. Barker #A-1
Elevation 1657 Kelly Bushings Formation Kansas City Ticket Number 7807
Date Jan. 14, 1967 Sec. 35 Twp. 27 Range 12 County Pratt State Kansas
Test Approved by Robert E. McCann Western Representative Leon Elmore

Formation Test No. 3 O.K. Misrun _____ Interval Tested From 3858' to 3870' Total Depth 3870'
Size Main Hole 7 7/8 Rat Hole _____ Conv. B.T. _____ Damaged _____ Yes No Conv. _____ B.T. Damaged _____ Yes No
Packer Depth 3853 Ft. Size 6 3/4 Packer Depth 3858 Ft. Size 6 3/4
Straddle _____ Yes No _____ Conv. _____ B.T. _____ Damaged _____ Yes _____ No
Packer Depth _____ Ft. Size _____
Tool Size 5 1/2 OD Tool Jt. Size 4 1/2 FH Anchor Length 12 Ft. Size 5 1/2 OD

RECORDERS Depth 3862 Ft. Clock No. 5665 Depth 3865 Ft. Clock No. 8377
Top Make Kuster Cap. 4400 No. 2603 ~~3155~~ Inside Bottom Make Kuster Cap. 4200 No. 1559 ~~1559~~ Outside
Below Straddle: Depth _____ Clock No. _____ Inside Depth _____ Ft. Clock No. _____ Inside
Top Make _____ Cap. _____ No. _____ Outside Bottom Make _____ Cap. _____ No. _____ Inside
Time Set Packer 2:48 A M

Tool Open I.F.P. From 2:50 M to 3:00 M Hr. 10 Min. From (B) 95 P.S.I. To (C) 98 P.S.I.
Tool Closed I.C.I.P. From 3:00 M. to 3:30 M. Hr. 30 Min. (D) 1462 P.S.I.
Tool Open F.F.P. From 3:30 M. to 4:30 M. 1 Hr. Min. From (E) 120 P.S.I. To (F) 260 P.S.I.
Tool Closed F.C.I.P. From 4:30 M. to 5:00 M. Hr. 30 Min. (G) 1337 P.S.I.
Initial Hydrostatic Pressure (A) 2169 P.S.I. Final Hydrostatic Pressure (H) 2143 P.S.I.

SURFACE Size Choke 3/4 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
SEE ATTACHED SHEET _____ M. _____
_____ M. _____

BLOW Strong - Surging Bottom Choke Size 3/4 In.
Did Well Flow _____ Yes No _____ Recovery Total Ft. 700' free oil; 200' muddy oil; 15' water

Reversed Out _____ Yes No _____ Mud Type starch Viscosity 48 Weight 10.1 Maximum Temp. 122 °F
EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size _____ Make _____ Ser. No. _____
Type Circ. Sub. plug Did Tool Plug? no Where? _____ Did Packer Hold? yes
Length Drill Pipe 2719 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 746 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 130 ft.
I. D. Drill Collars 2 1/4 in. Length D.S.T. Tool 32 ft.

Remarks Gas to surface in 3 1/2 minutes.



P. O. BOX 793
GREAT BEND, KANSAS

COMPANY Bowers Drilling Company LEASE & WELL NO. Barker A-1

TEST NO. 3 INTERVAL TESTED FROM 3858' TO 3870'

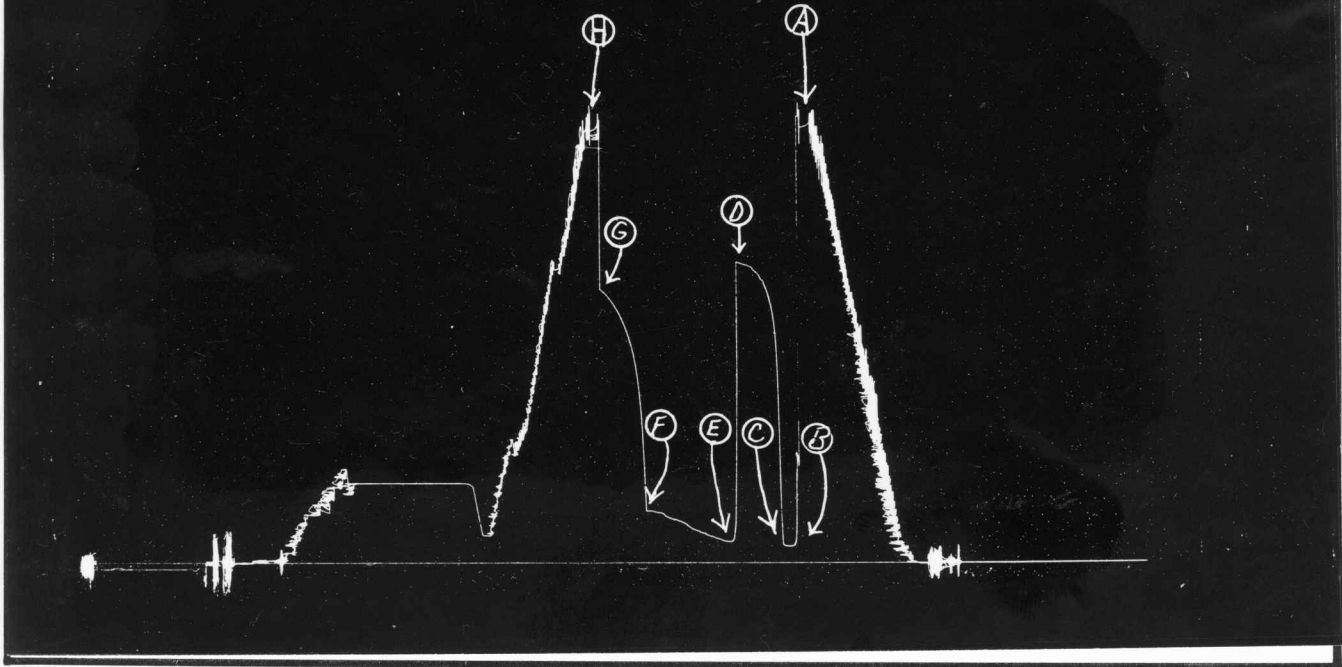
TIME PRE-FLOW	Ins. of water MAX PRESS. P.S.F.	DESCRIPTION OF FLOW
10 min. P. F.	7	90,480
10 min. F. F.	11	114,500
20	7	90,480
30	2	49,000
40		Too small to measure
50		Too small to measure
60		Too small to measure
SECOND FLOW		

SIZE CHOKE SURFACE 3/4 IN. BOTTOM 3/4 IN.

REMARKS Gas to surface in 3 1/2 minutes. Surging blow.

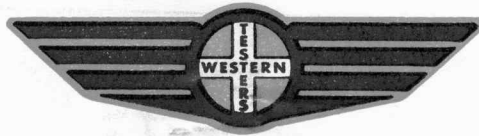
Bowers Drlg Co.
Barker #A-1

TKT-7807
Test #3



This is an actual photograph of recorder chart.

POINT	PRESSURE	
(A) Initial Hydrostatic Mud	2169	PSI
(B) First Initial Flow Pressure	95	PSI
(C) First Final Flow Pressure	98	PSI
(D) Initial Closed-in Pressure	1462	PSI
(E) Second Initial Flow Pressure	120	PSI
(F) Second Final Flow Pressure	260	PSI
(G) Final Closed-in Pressure	1337	PSI
(H) Final Hydrostatic Mud	2143	PSI



Home Office: Great Bend, Kansas
P. O. Box 793 Swift 3-7903

Company Bowers Drilling Company Lease & Well No. Barker #A-1
Elevation 1657 Kelly Bushings Formation Kansas City Ticket Number 7808
Date Jan. 14, 1967 Sec. 35 Twp. 27 Range 12 County Pratt State Kansas
Test Approved by Robert E. McCann Western Representative Leon Elmore

Formation Test No. 4 O.K. Misrun _____ Interval Tested From 3888' to 3914' Total Depth 3914'
Size Main Hole 7 7/8 Rat Hole _____ Conv. B.T. _____ Damaged Yes No Conv. _____ B.T. Damaged Yes No
Packer Depth 3883 Ft. Size 6 3/4 Packer Depth 3888 Ft. Size 6 3/4
Straddle Yes No _____ Conv. _____ B.T. _____ Damaged Yes _____ No

Tool Size 5 1/2 OD Tool Jt. Size 4 1/2 FH Anchor Length 26 Ft. Size 5 1/2 OD
RECORDERS Depth 3907 Ft. Clock No. 5665 Depth 3910 Ft. Clock No. 8377
Top Make Kuster Cap. 4400 No. 2603 ~~Inside~~ Outside Bottom Make Kuster Cap. 4200 No. 1559 ~~Inside~~ Outside
Below Straddle: Depth _____ Clock No. _____ Inside Depth _____ Ft. Clock No. _____ Outside
Top Make _____ Cap. _____ No. _____ Inside Bottom Make _____ Cap. _____ No. _____ Outside
Time Set Packer 9:54 P M

Tool Open I.F.P. From 9:56 M to 10:06 M Hr. 10 Min. From (B) 196 P.S.I. To (C) 158 P.S.I.
Tool Closed I.C.I.P. From 10:06 M. to 10:36 M. Hr. 30 Min. (D) 1459 P.S.I.
Tool Open F.F.P. From 10:36 M. to 11:41 M. 1 Hr. 5 Min. From (E) 170 P.S.I. To (F) 347 P.S.I.
Tool Closed F.C.I.P. From 11:41 M. to 12:11 M. Hr. 30 Min. (G) 1321 P.S.I.
Initial Hydrostatic Pressure (A) 2141 P.S.I. Final Hydrostatic Pressure (H) 2120 P.S.I.

SURFACE Size Choke 3/4 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
SEE ATTACHED SHEET _____ M. _____
_____ M. _____

BLOW STRONG SURGING Bottom Choke Size 3/4 In.
Did Well Flow Yes No _____ Recovery Total Ft. 496' free oil; 930' muddy oil

Reversed Out Yes No _____ Mud Type starch Viscosity 49 Weight 10.1 Maximum Temp. 122 °F
EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size _____ Make _____ Ser. No. _____
Type Circ. Sub. plug Did Tool Plug? no Where? _____ Did Packer Hold? yes
Length Drill Pipe _____ ft. I.D. Drill Pipe 3.8 in Length Weight Pipe 746 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 130 ft.
I. D. Drill Collars 2 1/4 in. Length D.S.T. Tool 46 ft.

Remarks Gas to surface in 5 minutes. 36 gravity corrected.
Wait 6 1/2 hours for daylight.

WESTERN TESTING CO., INC.
Pressure Data

Date January 14, 1967 Test Ticket No. 7808
 Recorder No. 2603 Capacity 4400 Location 3907 Ft.
 Clock No. 5665 Elevation 1657 Kelly Bushings Well Temperature 122 °F

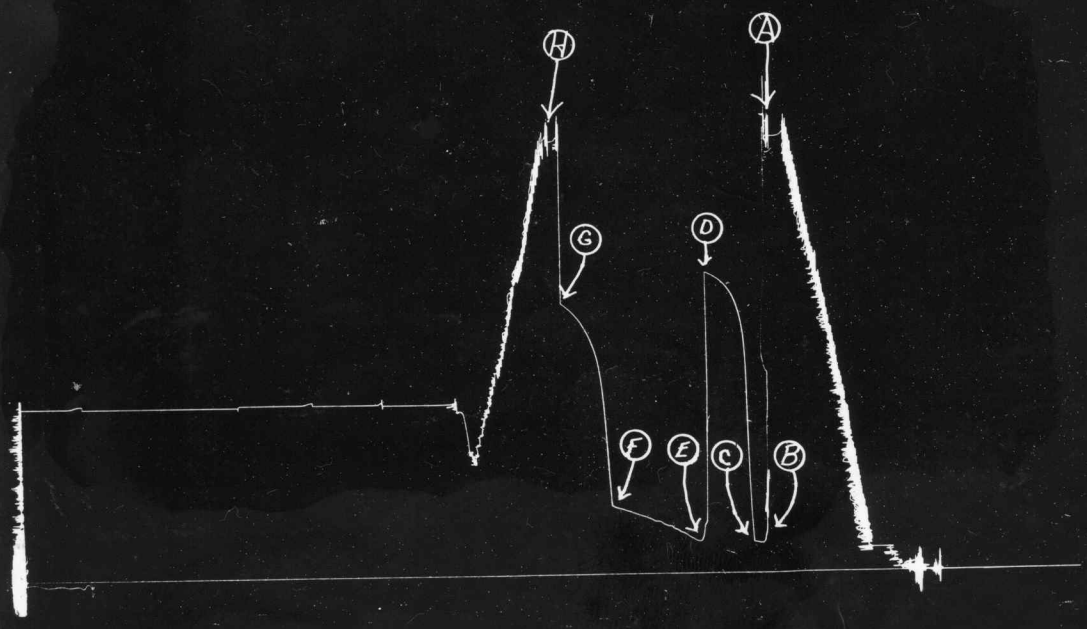
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2141 P.S.I.	Opened Tool	9:54 P	
B First Initial Flow Pressure	196 P.S.I.	First Flow Pressure	10 Mins.	10 Mins.
C First Final Flow Pressure	158 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	1459 P.S.I.	Second Flow Pressure	65 Mins.	63 Mins.
E Second Initial Flow Pressure	170 P.S.I.	Final Closed-in Pressure	30 Mins.	31 Mins.
F Second Final Flow Pressure	347 P.S.I.			
G Final Closed-in Pressure	1321 P.S.I.			
H Final Hydrostatic Mud	2120 P.S.I.			

PRESSURE BREAKDOWN

First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>2</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>10</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>=</u> Min.		final inc. of <u>=</u> Min.		final inc. of <u>3</u> Min.		final inc. of <u>1</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>0</u> 196	<u>0</u> 158	<u>0</u> 170	<u>0</u> 170	<u>0</u> 347	<u>0</u> 347	<u>0</u> 347
P 2	<u>5</u> 156	<u>3</u> 623	<u>5</u> 173	<u>5</u> 173	<u>3</u> 630	<u>3</u> 630	<u>3</u> 630
P 3	<u>10</u> 158	<u>6</u> 1079	<u>10</u> 189	<u>10</u> 189	<u>6</u> 873	<u>6</u> 873	<u>6</u> 873
P 4		<u>9</u> 1226	<u>15</u> 211	<u>15</u> 211	<u>9</u> 1022	<u>9</u> 1022	<u>9</u> 1022
P 5		<u>12</u> 1299	<u>20</u> 235	<u>20</u> 235	<u>12</u> 1108	<u>12</u> 1108	<u>12</u> 1108
P 6		<u>15</u> 1355	<u>25</u> 249	<u>25</u> 249	<u>15</u> 1162	<u>15</u> 1162	<u>15</u> 1162
P 7		<u>18</u> 1388	<u>30</u> 265	<u>30</u> 265	<u>18</u> 1204	<u>18</u> 1204	<u>18</u> 1204
P 8		<u>21</u> 1414	<u>35</u> 280	<u>35</u> 280	<u>21</u> 1239	<u>21</u> 1239	<u>21</u> 1239
P 9		<u>24</u> 1433	<u>40</u> 294	<u>40</u> 294	<u>24</u> 1268	<u>24</u> 1268	<u>24</u> 1268
P10		<u>27</u> 1447	<u>45</u> 308	<u>45</u> 308	<u>27</u> 1293	<u>27</u> 1293	<u>27</u> 1293
P11		<u>30</u> 1459	<u>50</u> 323	<u>50</u> 323	<u>30</u> 1315	<u>30</u> 1315	<u>30</u> 1315
P12			<u>55</u> 336	<u>55</u> 336	<u>31</u> 1321	<u>31</u> 1321	<u>31</u> 1321
P13			<u>60</u> 342	<u>60</u> 342			
P14			<u>63</u> 347	<u>63</u> 347			
P15							
P16							
P17							
P18							
P19							
P20							

Bowers Drilg Co.
Barker #A-1

TKT 7808
Test #4



This is an actual photograph of recorder chart.

POINT	PRESSURE	
(A) Initial Hydrostatic Mud	2141	PSI
(B) First Initial Flow Pressure	196	PSI
(C) First Final Flow Pressure	158	PSI
(D) Initial Closed-in Pressure	1459	PSI
(E) Second Initial Flow Pressure	170	PSI
(F) Second Final Flow Pressure	347	PSI
(G) Final Closed-in Pressure	1321	PSI
(H) Final Hydrostatic Mud	2120	PSI



TIGHT HOLE

Home Office: Great Bend, Kansas
P. O. Box 793 SWift 3-7903

Company Bowers Drilling Company Lease & Well No. Barker #A-1
Elevation 1657 Kelly Bushings Formation Kansas City Ticket Number 7809
Date Jan. 15, 1967 Sec. 35 Twp. 27 Range 12 County Pratt State Kansas
Test Approved by Robert E. McCann Western Representative Leon Elmore

Formation Test No. 5 O.K. Misrun _____ Interval Tested From 3938' to 3950' Total Depth 3950'
Size Main Hole 7 7/8 Rat Hole _____ Conv. B.T. _____ Damaged Yes No _____ Conv. _____ B.T. Damaged Yes No _____
Packer Depth 3933 Ft. Size 6 3/4 Packer Depth 3938 Ft. Size 6 3/4
Straddle Yes No _____ Conv. _____ B.T. _____ Damaged Yes _____ No _____

Tool Size 5 1/2 OD Tool Jt. Size 4 1/2 FH Anchor Length 12 Ft. Size 5 1/2 OD
RECORDERS Depth 3942 Ft. Clock No. 8377 Depth 3945 Ft. Clock No. 5665
Top Make Kuster Cap. 4400 No. 2603 Inside Outside Bottom Make Kuster Cap. 4200 No. 1559 ~~Inside~~ Outside
Below Straddle: Depth _____ Clock No. _____ Depth _____ Ft. Clock No. _____
Top Make _____ Cap. _____ No. _____ Inside _____ Bottom Make _____ Cap. _____ No. _____ Outside _____
Time Set Packer 10:51 P M

Tool Open I.F.P. From 10:53 M to 10:58 M Hr. 5 Min. From (B) 553 P.S.I. To (C) 513 P.S.I.
Tool Closed I.C.I.P. From 10:58 M. to 11:28 M. Hr. 30 Min. (D) 1539 P.S.I.
Tool Open F.F.P. From 11:28 M. to 11:53 M. Hr. 25 Min. From (E) 519 P.S.I. To (F) 513 P.S.I.
Tool Closed F.C.I.P. From 11:53 M. to 12:23 M. Hr. 30 Min. (G) 1500 P.S.I.
Initial Hydrostatic Pressure (A) 2151 P.S.I. Final Hydrostatic Pressure (H) 2120 P.S.I.

SURFACE Size Choke 3/4 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
SEE ATTACHED SHEET _____ M. _____
_____ M. _____

BLOW STRONG Bottom Choke Size 3/4 In.
Did Well Flow Yes _____ No _____ Recovery Total Ft. 372' free oil

Reversed Out Yes No _____ Mud Type starch Viscosity 49 Weight 10.1 Maximum Temp. 119 °F
EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size _____ Make _____ Ser. No. _____
Type Circ. Sub. plug Did Tool Plug? no Where? _____ Did Packer Hold? yes
Length Drill Pipe _____ ft. I.D. Drill Pipe 3.8 Length Weight Pipe 746 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 130 ft.
I. D. Drill Collars 2 1/4 in. Length D.S.T. Tool 32 ft.

Remarks Gas to surface in one minute. Gauged 2,250,000 heavy oil spray in 12 minutes.
Wait 6 hours on daylight. 35° Gravity oil - corrected.



P. O. BOX 793
GREAT BEND, KANSAS

COMPANY Bowers Drilling Company LEASE & WELL NO. Barker A-1

TEST NO. 5 INTERVAL TESTED FROM 3938' TO 3950'

TIME PRE-FLOW	MAX PRESS. P.S.I.	DESCRIPTION OF FLOW
<u>5 min. P. F.</u>	<u>8 lbs</u>	<u>2,060,000</u>
<u>10 min.</u>	<u>9.5</u>	<u>2,250,000</u>

Heavy oil spray in 12 minutes.

SECOND FLOW

SIZE CHOKE _____ SURFACE 3/4 IN. _____ BOTTOM 3/4 IN. _____

REMARKS Gas to surface in one minute.

WESTERN TESTING CO., INC.

Pressure Data

Date January 15, 1967 Test Ticket No. 7809
 Recorder No. 2603 Capacity 4400 Location 3942 Ft.
 Clock No. 5665 Elevation 1657 Kelly Bushings Well Temperature 119 °F

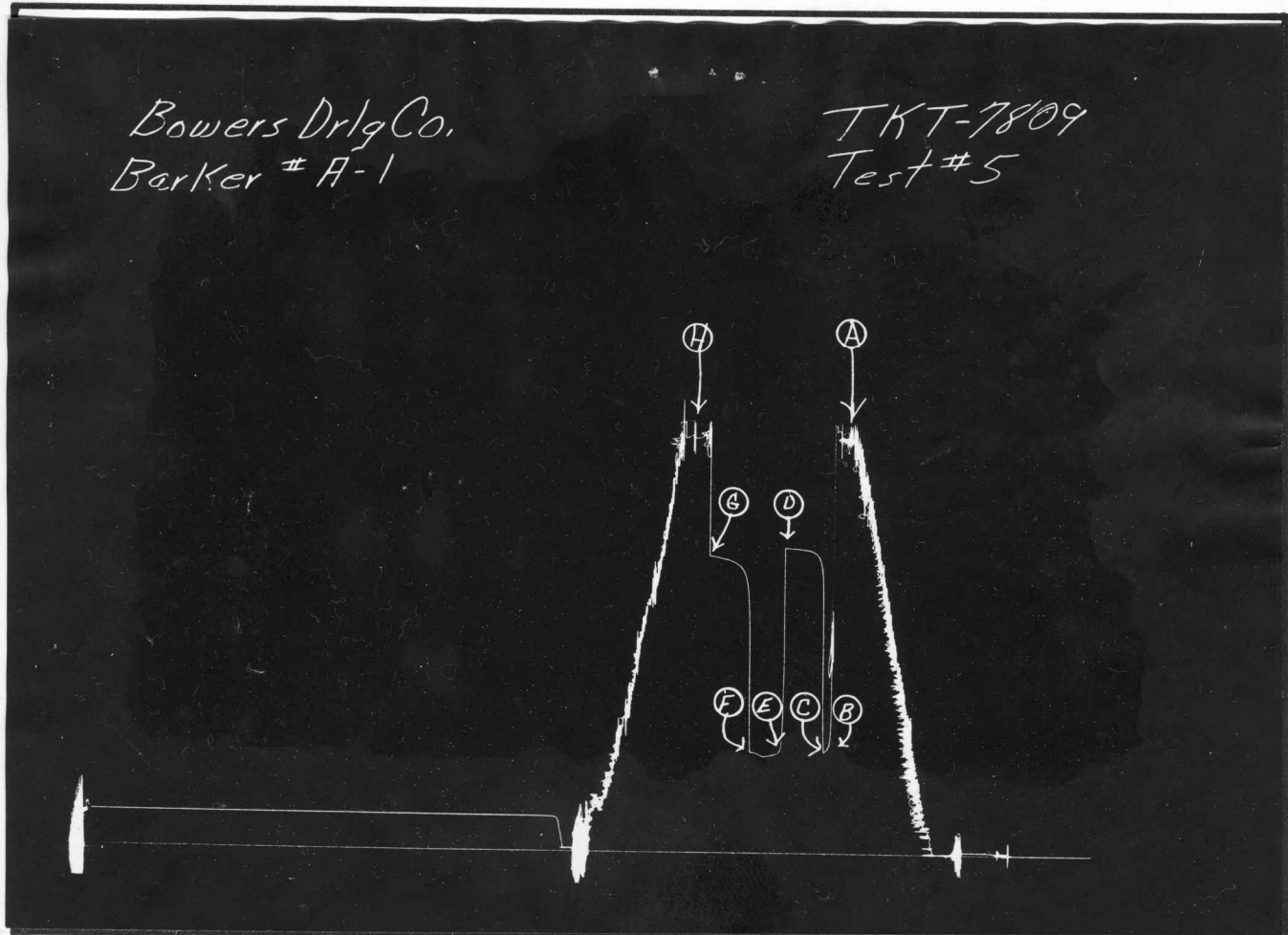
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2151</u> P.S.I.	Opened Tool	<u>10:51 P</u> M	
B First Initial Flow Pressure	<u>553</u> P.S.I.	First Flow Pressure	<u>5</u> Mins.	<u>5</u> Mins.
C First Final Flow Pressure	<u>513</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1539</u> P.S.I.	Second Flow Pressure	<u>25</u> Mins.	<u>25</u> Mins.
E Second Initial Flow Pressure	<u>519</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>32</u> Mins.
F Second Final Flow Pressure	<u>513</u> P.S.I.			
G Final Closed-in Pressure	<u>1500</u> P.S.I.			
H Final Hydrostatic Mud	<u>2120</u> P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Press.	Initial Shut-In	Second Flow Pressure	Final Shut-In			
	Breakdown: <u>1</u> Inc. of <u>5</u> mins. and a final inc. of <u>=</u> Min.	Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>=</u> Min.	Breakdown: <u>5</u> Inc. of <u>5</u> mins. and a final inc. of <u>=</u> Min.	Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>2</u> Min.			
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>553</u>	<u>0</u>	<u>513</u>	<u>0</u>	<u>519</u>	<u>0</u>	<u>513</u>
P 2	<u>513</u>	<u>3</u>	<u>1233</u>	<u>5</u>	<u>504</u>	<u>3</u>	<u>1155</u>
P 3		<u>6</u>	<u>1459</u>	<u>10</u>	<u>497</u>	<u>6</u>	<u>1364</u>
P 4		<u>9</u>	<u>1502</u>	<u>15</u>	<u>497</u>	<u>9</u>	<u>1424</u>
P 5		<u>12</u>	<u>1517</u>	<u>20</u>	<u>513</u>	<u>12</u>	<u>1450</u>
P 6		<u>15</u>	<u>1526</u>	<u>25</u>	<u>513</u>	<u>15</u>	<u>1466</u>
P 7		<u>18</u>	<u>1528</u>	<u>=</u>		<u>18</u>	<u>1475</u>
P 8		<u>21</u>	<u>1531</u>			<u>21</u>	<u>1484</u>
P 9		<u>24</u>	<u>1534</u>			<u>24</u>	<u>1488</u>
P10		<u>27</u>	<u>1536</u>			<u>27</u>	<u>1491</u>
P11		<u>30</u>	<u>1539</u>			<u>30</u>	<u>1495</u>
P12						<u>32</u>	<u>1500</u>
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Bowers Drlg Co.
Barker # A-1

TKT-7809
Test # 5



This is an actual photograph of recorder chart.

POINT	PRESSURE	
(A) Initial Hydrostatic Mud	2151	PSI
(B) First Initial Flow Pressure	553	PSI
(C) First Final Flow Pressure	513	PSI
(D) Initial Closed-in Pressure	1539	PSI
(E) Second Initial Flow Pressure	519	PSI
(F) Second Final Flow Pressure	513	PSI
(G) Final Closed-in Pressure	1500	PSI
(H) Final Hydrostatic Mud	2120	PSI



TIGHT HOLE

Home Office: Great Bend, Kansas
P. O. Box 793 Swift 3-7903

Company **Bowers Drilling Company** Lease & Well No. **Barker #A-1**
Elevation **1657 Kelly Bushings** Formation **Mississippi** Ticket Number **7810**
Date **Jan. 17, 1967** Sec. **35** Twp. **27** Range **12** County **Pratt** State **Kansas**
Test Approved by **Robert E. McCann** Western Representative **Leon Elmore**

Formation Test No. **6** O.K. Misrun Interval Tested From **4049'** to **4075'** Total Depth **4075'**
Size Main Hole **7 7/8** Rat Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Packer Depth **4044** Ft. Size **6 3/4** Packer Depth **4049** Ft. Size **6 3/4**
Straddle Yes No Conv. B.T. Damaged Yes No

Tool Size **5 1/2 OD** Tool Jt. Size **4 1/2 FH** Anchor Length **2 6** Ft. Size **5 1/2 OD**
RECORDERS Depth **4068** Ft. Clock No. **8377** Depth **4071** Ft. Clock No. **5665**
Top Make **Kuster** Cap. **4400** No. **2603** Inside Outside Bottom Make **Kuster** Cap. **4300** No. **1566** Inside Outside
Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside
Top Make Cap. No. Outside Bottom Make Cap. No. Outside
Time Set Packer **7:24 A** M

Tool Open I.F.P. From **7:26A** M to **7:32** M Hr. **6** Min. From (B) **89** P.S.I. To (C) **74** P.S.I.
Tool Closed I.C.I.P. From **7:32** M to **8:02** M Hr. **30** Min. (D) **1475** P.S.I.
Tool Open F.F.P. From **8:02** M to **9:32** M **1** Hr. **30** Min. From (E) **64** P.S.I. To (F) **69** P.S.I.
Tool Closed F.C.I.P. From **9:32** M to **10:17** M Hr. **45** Min. (G) **1157** P.S.I.
Initial Hydrostatic Pressure (A) **2211** P.S.I. Final Hydrostatic Pressure (H) **2163** P.S.I.

SURFACE Size Choke **3/4** In. Max. Press. P.S.I. Time Description of Flow
INFORMATION _____ M. _____
_____ M. _____
SEE ATTACHED SHEET _____ M. _____

BLOW **STRONG** Bottom Choke Size _____ In.
Did Well Flow Yes No Recovery Total Ft. **65' gas cut mud**

Reversed Out Yes No Mud Type **starch** Viscosity **44** Weight **10** Maximum Temp. **126** °F
EXTRA EQUIPMENT: Dual Packers **yes** Safety Joint **no** Jars: Size _____ Make _____ Ser. No. _____
Type Circ. Sub. **plug** Did Tool Plug? **no** Where? _____ Did Packer Hold? **yes**
Length Drill Pipe **2924** ft. I.D. Drill Pipe **3.8** in Length Weight Pipe **746** ft. I.D. Weight Pipe **2.7** in Length Drill Collars **130** ft.
I. D. Drill Collars **2 1/4** in. Length D.S.T. Tool **46** ft.

Remarks **Gas to surface in four minutes. Gauged 134,200**



P. O. BOX 793
GREAT BEND, KANSAS

COMPANY Bowers Drilling Company LEASE & WELL NO. Barker #A-1
TEST NO. 6 INTERVAL TESTED FROM 4049' TO 4075'

TIME PRE-FLOW	MIN. PRESS. P.S.I. <u>Ins. of water.</u>	DESCRIPTION OF FLOW
10 min.	27	180,900
20	26	175,000
30	22	162,000
40	19	151,400
50	15	134,200
60	10	109,700
seconds flow		
70	15	134,200
80	15	134,200
90	15	134,200

SIZE CHOKES SURFACE 3/4 IN. BOTTOM 3/4 IN.

REMARKS Gas to surface in four minutes.

WESTERN TESTING CO., INC.

Pressure Data

Date January 17, 1967 Test Ticket No. 7810
 Recorder No. 2603 Capacity 4400 Location 468 Ft.
 Clock No. 8377 Elevation 1657 Kelly Bushings Well Temperature 126 °F

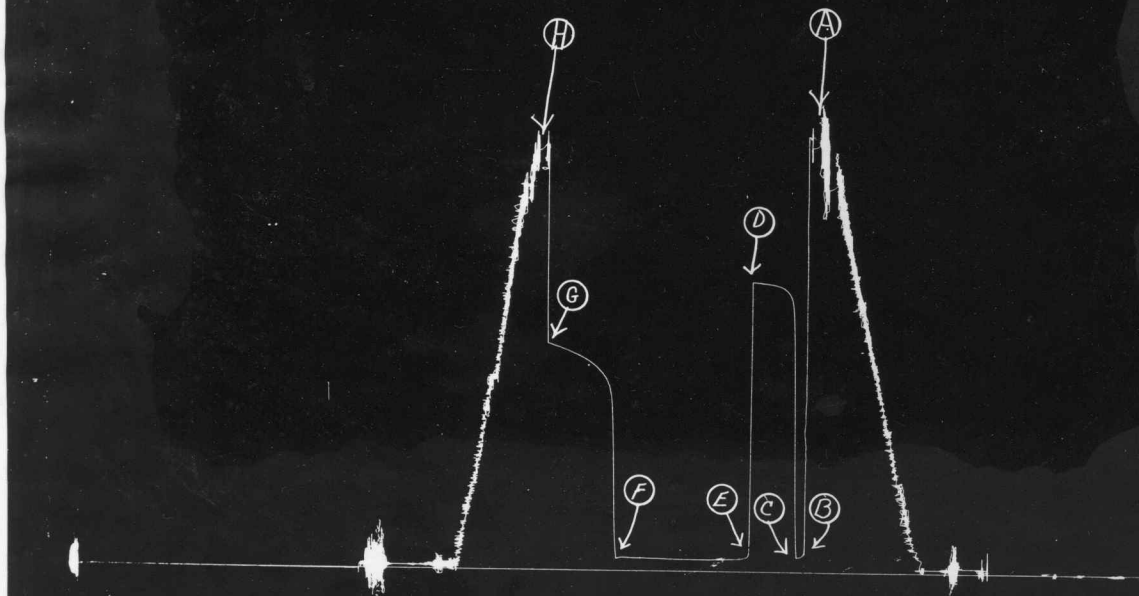
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2211</u> P.S.I.	Opened Tool	<u>7:24 A</u> M	
B First Initial Flow Pressure	<u>89</u> P.S.I.	First Flow Pressure	<u>6</u> Mins.	<u>6</u> Mins.
C First Final Flow Pressure	<u>74</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>31</u> Mins.
D Initial Closed-in Pressure	<u>1475</u> P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>89</u> Mins.
E Second Initial Flow Pressure	<u>64</u> P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>47</u> Mins.
F Second Final Flow Pressure	<u>69</u> P.S.I.			
G Final Closed-in Pressure	<u>1157</u> P.S.I.			
H Final Hydrostatic Mud	<u>2163</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>1</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>17</u> Inc.		Breakdown: <u>15</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>1</u> Min.		final inc. of <u>1</u> Min.		final inc. of <u>4</u> Min.		final inc. of <u>2</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>89</u>	<u>0</u>	<u>74</u>	<u>0</u>	<u>64</u>	<u>0</u>	<u>69</u>
P 2 <u>5</u>	<u>77</u>	<u>3</u>	<u>468</u>	<u>5</u>	<u>64</u>	<u>3</u>	<u>408</u>
P 3 <u>6</u>	<u>74</u>	<u>6</u>	<u>1066</u>	<u>10</u>	<u>63</u>	<u>6</u>	<u>760</u>
P 4		<u>9</u>	<u>1384</u>	<u>15</u>	<u>62</u>	<u>9</u>	<u>942</u>
P 5		<u>12</u>	<u>1428</u>	<u>20</u>	<u>62</u>	<u>12</u>	<u>988</u>
P 6		<u>15</u>	<u>1447</u>	<u>25</u>	<u>62</u>	<u>15</u>	<u>1017</u>
P 7		<u>18</u>	<u>1456</u>	<u>30</u>	<u>62</u>	<u>18</u>	<u>1042</u>
P 8		<u>21</u>	<u>1462</u>	<u>35</u>	<u>62</u>	<u>21</u>	<u>1059</u>
P 9		<u>24</u>	<u>1466</u>	<u>40</u>	<u>62</u>	<u>24</u>	<u>1077</u>
P10		<u>27</u>	<u>1468</u>	<u>45</u>	<u>62</u>	<u>27</u>	<u>1088</u>
P11		<u>30</u>	<u>1473</u>	<u>50</u>	<u>62</u>	<u>30</u>	<u>1101</u>
P12		<u>31</u>	<u>1475</u>	<u>55</u>	<u>63</u>	<u>33</u>	<u>1111</u>
P13				<u>60</u>	<u>64</u>	<u>36</u>	<u>1122</u>
P14				<u>65</u>	<u>65</u>	<u>39</u>	<u>1130</u>
P15				<u>70</u>	<u>66</u>	<u>42</u>	<u>1139</u>
P16				<u>75</u>	<u>67</u>	<u>45</u>	<u>1150</u>
P17				<u>80</u>	<u>69</u>	<u>47</u>	<u>1157</u>
P18				<u>85</u>	<u>69</u>		
P19				<u>89</u>	<u>69</u>		
P20							

Bowers Drilling Co.
Barker #A-1

TKT-7810
Test #6



This is an actual photograph of recorder chart.

POINT	PRESSURE	
(A) Initial Hydrostatic Mud	2211	PSI
(B) First Initial Flow Pressure	89	PSI
(C) First Final Flow Pressure	74	PSI
(D) Initial Closed-in Pressure	1475	PSI
(E) Second Initial Flow Pressure	64	PSI
(F) Second Final Flow Pressure	69	PSI
(G) Final Closed-in Pressure	1157	PSI
(H) Final Hydrostatic Mud	2163	PSI



TIGHT HOLE

Home Office: Great Bend, Kansas
P. O. Box 793 Swift 3-7903

Company Bowers Drilling Company Lease & Well No. Barker #A-1
Elevation 1657 Kelly Bushings Simpson Ticket Number 7811
Date Jan. 20, 1967 Sec. 35 Twp. 27 Range 12 County Pratt State Kansas
Test Approved by Robert E. McCann Western Representative Leon Elmore

Formation Test No. 7 O.K. Misrun Interval Tested From 4345' to 4356' Total Depth 4356'
Size Main Hole 7 7/8 Rat Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Packer Depth 4340 Ft. Size 6 3/4 Packer Depth 4345 Ft. Size 6 3/4
Straddle Yes No Conv. B.T. Damaged Yes No

Packer Depth 4340 Ft. Size 6 3/4
Tool Size 5 1/2 OD Tool Jt. Size 4 1/2 FH Anchor Length 11 Ft. Size 5 1/2 OD

RECORDERS Depth 4349 Ft. Clock No. 8377 Depth 4352 Ft. Clock No. 5665
Top Make Kuster Cap. 4400 No. 2603 Inside Outside Bottom Make Kuster Cap. 4300 No. 1566 Outside
Below Straddle: Depth 4349 Ft. Clock No. 8377 Depth 4352 Ft. Clock No. 5665
Top Make Kuster Cap. 4400 No. 2603 Inside Outside Bottom Make Kuster Cap. 4300 No. 1566 Outside

Time Set Packer 3:46 A M
Tool Open I.F.P. From 3:48 M to 3:58 M Hr. 10 Min. From (B) 62 P.S.I. To (C) 62 P.S.I.
Tool Closed I.C.I.P. From 3:58 M to 4:28 M Hr. 30 Min. (D) 824 P.S.I.
Tool Open F.F.P. From 4:28 M to 5:28 M 1 Hr. Min. From (E) 69 P.S.I. To (F) 86 P.S.I.
Tool Closed F.C.I.P. From 5:28 M to 5:58 M Hr. 30 Min. (G) 940 P.S.I.
Initial Hydrostatic Pressure (A) 2352 P.S.I. Final Hydrostatic Pressure (H) 2330 P.S.I.

SURFACE Size Choke 3/4 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
_____ M. _____
_____ M. _____

BLOW Strong - Surging Bottom Choke Size 3/4 In.
Did Well Flow Yes No Recovery Total Ft. 100' watery mud; 30' muddy water.

Reversed Out Yes No Mud Type starch Viscosity 40 Weight 9.9 Maximum Temp. 136 °F
EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size _____ Make _____ Ser. No. _____
Type Circ. Sub. plug Did Tool Plug? no Where? _____ Did Packer Hold? yes
Length Drill Pipe _____ ft. I.D. Drill Pipe 3.8 Length Weight Pipe 746 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 130 ft.
I. D. Drill Collars 2 1/4 in. Length D.S.T. Tool 31 ft.

Remarks Gas to surface in 35 minutes. Too small to measure.

WESTERN TESTING CO., INC.

Pressure Data

Date January 20, 1967 Test Ticket No. 7811
 Recorder No. 2 603 Capacity 4400 Location 4349° Ft.
 Clock No. 8377 Elevation _____ 1657 Kelly Bushings Well Temperature 136 °F

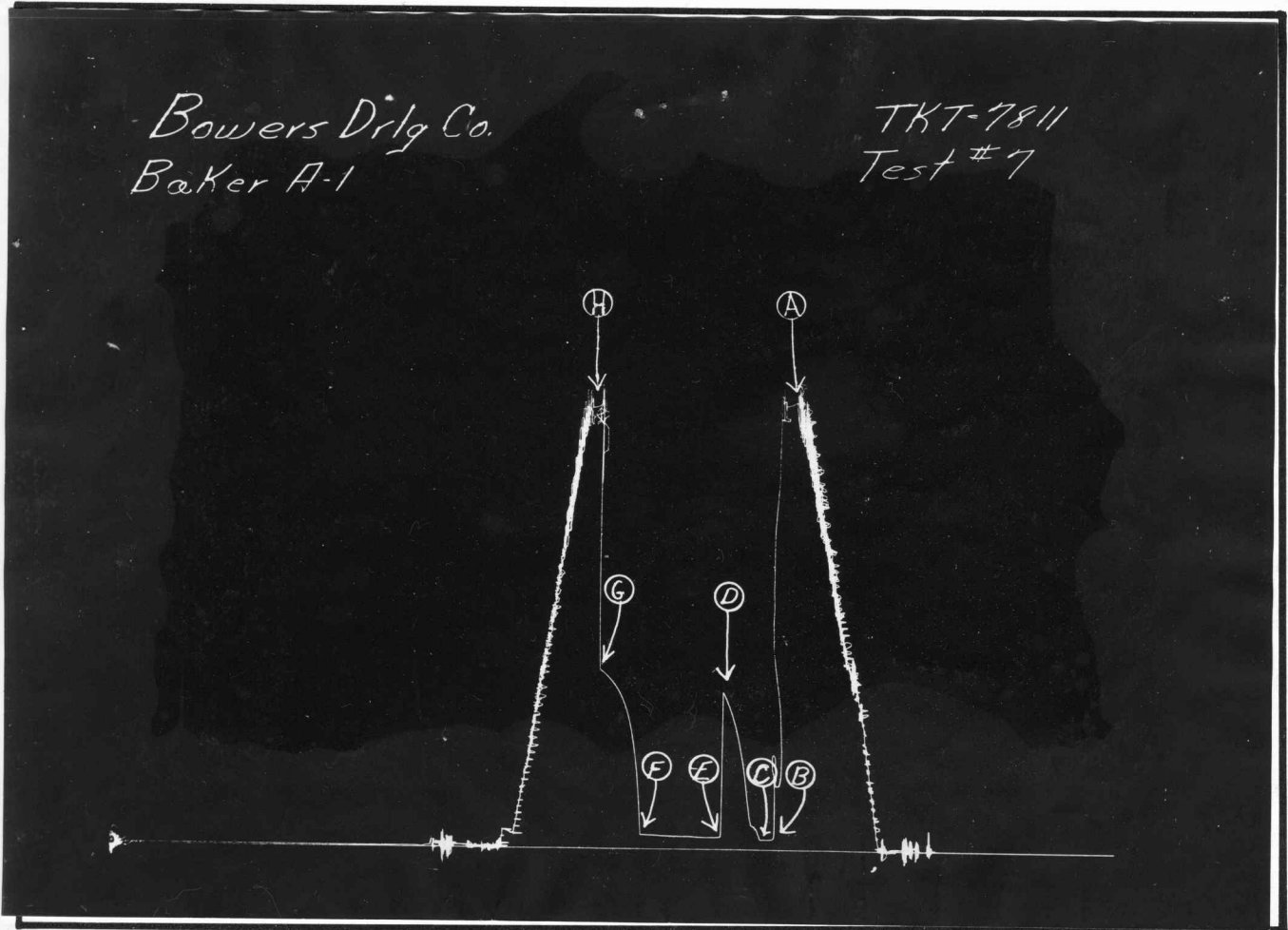
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2352</u> P.S.I.	Opened Tool	<u>3:46A</u> M	
B First Initial Flow Pressure	<u>62</u> P.S.I.	First Flow Pressure	<u>10</u> Mins.	<u>10</u> Mins.
C First Final Flow Pressure	<u>62</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>824</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>59</u> Mins.
E Second Initial Flow Pressure	<u>69</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>86</u> P.S.I.			
G Final Closed-in Pressure	<u>940</u> P.S.I.			
H Final Hydrostatic Mud	<u>2330</u> P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Press.	Initial Shut-In	Second Flow Pressure	Final Shut-In			
	Breakdown: <u>2</u> Inc. of <u>5</u> mins. and a final inc. of <u>=</u> Min.	Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>=</u> Min.	Breakdown: <u>11</u> Inc. of <u>5</u> mins. and a final inc. of <u>4</u> Min.	Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>=</u> Min.			
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>62</u>	<u>0</u>	<u>62</u>	<u>0</u>	<u>69</u>	<u>0</u>	<u>86</u>
P 2	<u>62</u>	<u>3</u>	<u>118</u>	<u>5</u>	<u>70</u>	<u>3</u>	<u>381</u>
P 3	<u>62</u>	<u>6</u>	<u>132</u>	<u>10</u>	<u>71</u>	<u>6</u>	<u>588</u>
P 4		<u>9</u>	<u>236</u>	<u>15</u>	<u>75</u>	<u>9</u>	<u>696</u>
P 5		<u>12</u>	<u>414</u>	<u>20</u>	<u>78</u>	<u>12</u>	<u>760</u>
P 6		<u>15</u>	<u>535</u>	<u>25</u>	<u>78</u>	<u>15</u>	<u>811</u>
P 7		<u>18</u>	<u>634</u>	<u>30</u>	<u>78</u>	<u>18</u>	<u>851</u>
P 8		<u>21</u>	<u>709</u>	<u>35</u>	<u>80</u>	<u>24</u>	<u>882</u>
P 9		<u>24</u>	<u>767</u>	<u>40</u>	<u>81</u>	<u>24</u>	<u>906</u>
P10		<u>27</u>	<u>799</u>	<u>45</u>	<u>83</u>	<u>27</u>	<u>925</u>
P11		<u>30</u>	<u>824</u>	<u>50</u>	<u>84</u>	<u>30</u>	<u>940</u>
P12				<u>55</u>	<u>85</u>		
P13				<u>59</u>	<u>86</u>		
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Bowers Drilg Co.
Baker A-1

TKT-7811
Test # 7



This is an actual photograph of recorder chart.

POINT	PRESSURE	
(A) Initial Hydrostatic Mud	2352	PSI
(B) First Initial Flow Pressure	62	PSI
(C) First Final Flow Pressure	62	PSI
(D) Initial Closed-in Pressure	824	PSI
(E) Second Initial Flow Pressure	69	PSI
(F) Second Final Flow Pressure	86	PSI
(G) Final Closed-in Pressure	940	PSI
(H) Final Hydrostatic Mud	2330	PSI