



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

Company Bowers Drilling Company Lease & Well No. Robbins #1
Elevation 2047' K.B. Ticket Number 4027
Date 5-15-64 Sec. 27 Twp. 29S Range 17W County Kiowa State Kansas
Test Approved by Robert E. McCann Western Representative George Tew

Formation Test No. 1 O.K. ☒ Misrun ☐ Interval Tested From 4731' to 4770' Total Depth 4770'
Size Main Hole 7 7/8" Rat Hole None Conv. ☒ B.T. ☐ Damaged ☒ Yes ☐ No Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No
Packer Depth 4731 Ft. Size 6 3/4" Packer Depth 4726 Ft. Size 6 3/4"
Straddle ☐ Yes ☒ No ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No
Packer Depth 4731 Ft. Size 6 3/4"
Tool Size 5 1/2" OD Tool Jt. Size 4 1/2" IF & FH Anchor Length 39 Ft. Size 5 1/2" OD

RECORDERS Depth 4763 Ft. Clock No. 6861 Depth 4766 Ft. Clock No. 120
Top Make Amerada Cap. 4200# No. 1558 Inside ☐ Outside ☐ Bottom Make Western Cap. 4000# No. 60 Inside ☐ Outside ☐
Below Straddle: Depth 4763 Ft. Clock No. 6861 Inside ☐ Outside ☐ Depth 4766 Ft. Clock No. 120 Inside ☐ Outside ☐
Top Make Amerada Cap. 4200# No. 1558 Inside ☐ Outside ☐ Bottom Make Western Cap. 4000# No. 60 Inside ☐ Outside ☐

Time Set Packer 5:35 P M
Tool Open I.F.P. From 5:40P M to 5:45P M - Hr. 5 Min. From (B) 37 P.S.I. To (C) 37 P.S.I.
Tool Closed I.C.I.P. From 5:45P M. to 6:15P M. - Hr. 30 Min. (D) 824 P.S.I.
Tool Open F.F.P. From 6:15P M. to 7:15P M. 1 Hr. - Min. From (E) 46 P.S.I. To (F) 50 P.S.I.
Tool Closed F.C.I.P. From 7:15P M. to 7:45P M. - Hr. 30 Min. (G) 1050 P.S.I.
Initial Hydrostatic Pressure (A) 2576 P.S.I. Final Hydrostatic Pressure (H) 2569 P.S.I.

SURFACE Size Choke 1/2 In. Max. Press. P.S.I. Time Description of Flow
INFORMATION Good blow throughout test Bottom Choke Size 3/4 in.

BLOW Good blow throughout test Bottom Choke Size 3/4 in.
Did Well Flow ☒ Yes ☐ No Recovery Total Ft. 120' S.G.C. Mud - 2580' Gas in pipe

Reversed Out ☒ Yes ☐ No Mud Type Starch Viscosity 54 Weight 10.1 Maximum Temp. 126 °F
EXTRA EQUIPMENT: Dual Packers ☒ Safety Joint ☒ Jars: Size 4 1/2" OD Make Bowen Ser. No. 2638
Type Circ. Sub Plug Did Tool Plug? ☒ No Where? Yes Did Packer Hold? ☒ Yes
Length Drill Pipe 4584 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 66 ft. I.D. Weight Pipe 120 in. Length Drill Collars 2.25 in. Length D. S. T. Tool 66 ft.

Remarks

WESTERN TESTING CO., INC.

Pressure Data

Date 5-15-64 Recorder No. 1558 Capacity 4200# Test Ticket No. 4027 Location 4763 Ft.
 Clock No. 6861 Elevation 2047' K.B. Well Temperature 126 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2576</u>	P.S.I.	<u>5:35 P</u>	<u>5:35 PM</u>
B First Initial Flow Pressure	<u>37</u>	P.S.I.	<u>5</u> Mins.	<u>5</u> Mins.
C First Final Flow Pressure	<u>37</u>	P.S.I.	<u>30</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>824</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>46</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>50</u>	P.S.I.		
G Final Closed-in Pressure	<u>1050</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2569</u>	P.S.I.		

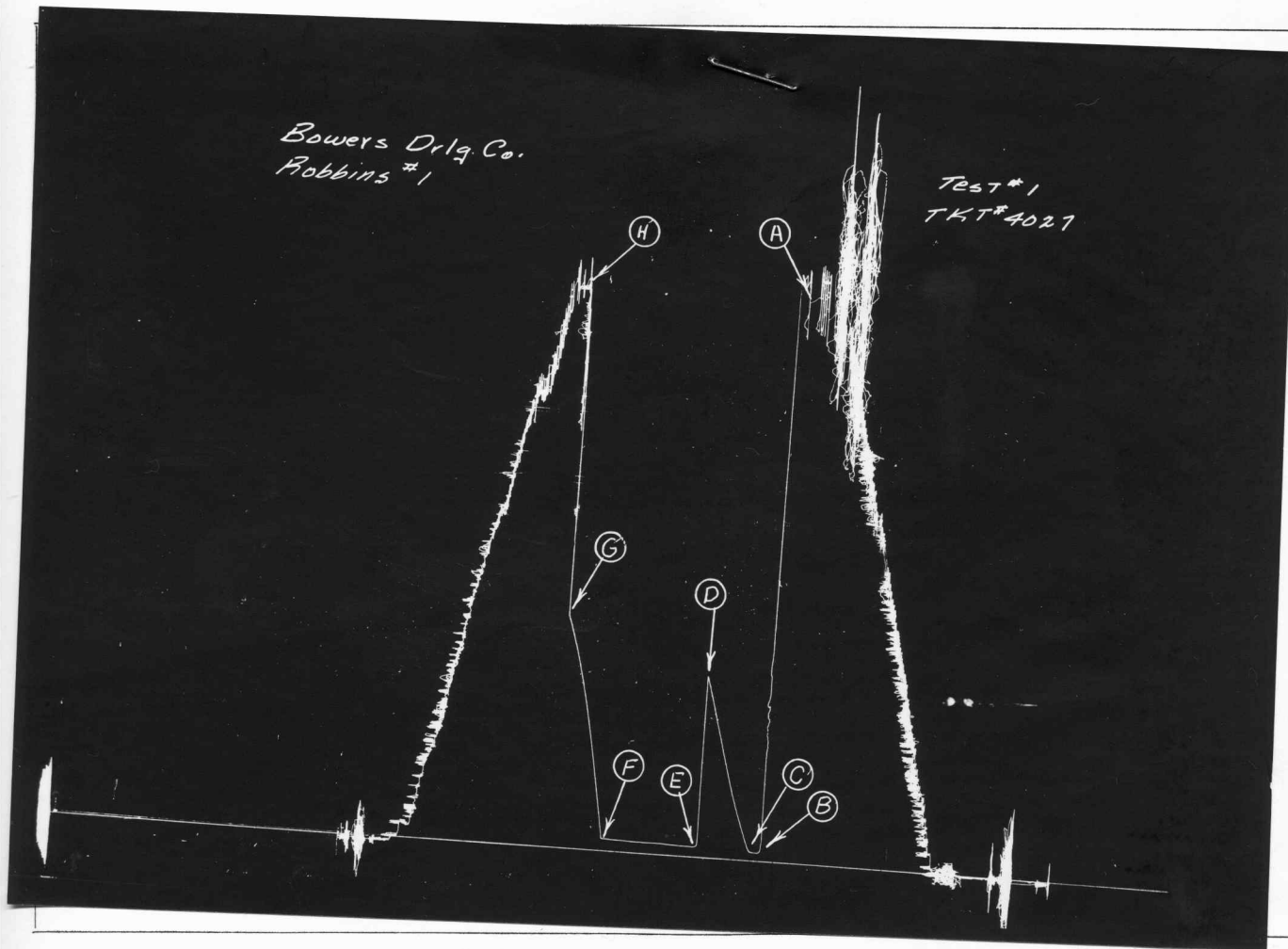
PRESSURE BREAKDOWN

First Flow Press.	Initial Shut-In	Second Flow Pressure	Final Shut-In
Breakdown: <u>1</u> Inc.	Breakdown: <u>11</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>-</u> Min.	final inc. of <u>-</u> Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>37</u>	<u>0</u>	<u>37</u>	<u>0</u>	<u>46</u>	<u>0</u>	<u>50</u>
P 2 <u>5</u>	<u>37</u>	<u>3</u>	<u>73</u>	<u>5</u>	<u>46</u>	<u>3</u>	<u>196</u>
P 3		<u>6</u>	<u>132</u>	<u>10</u>	<u>46</u>	<u>6</u>	<u>316</u>
P 4		<u>9</u>	<u>200</u>	<u>15</u>	<u>47</u>	<u>9</u>	<u>436</u>
P 5		<u>12</u>	<u>267</u>	<u>20</u>	<u>47</u>	<u>12</u>	<u>543</u>
P 6		<u>15</u>	<u>335</u>	<u>25</u>	<u>47</u>	<u>15</u>	<u>643</u>
P 7		<u>18</u>	<u>409</u>	<u>30</u>	<u>48</u>	<u>18</u>	<u>739</u>
P 8		<u>21</u>	<u>481</u>	<u>35</u>	<u>48</u>	<u>21</u>	<u>839</u>
P 9		<u>24</u>	<u>560</u>	<u>40</u>	<u>49</u>	<u>24</u>	<u>908</u>
P 10		<u>27</u>	<u>631</u>	<u>45</u>	<u>49</u>	<u>27</u>	<u>974</u>
P 11		<u>30</u>	<u>708</u>	<u>50</u>	<u>49</u>	<u>30</u>	<u>1050</u>
P 12		<u>33</u>	<u>824</u>	<u>55</u>	<u>50</u>		
P 13				<u>60</u>	<u>50</u>		
P 14							
P 15							
P 16							
P 17							
P 18							
P 19							
P 20							

Bowers Drilling Co.
Robbins #1

Test #1
TKT#4021

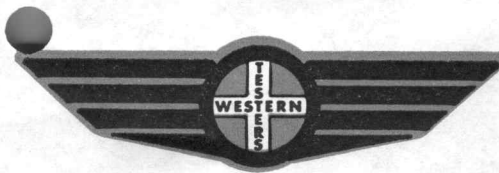


This is an actual photograph of recorder chart.

POINT

PRESSURE

(A) Initial Hydrostatic Mud	2576	PSI
(B) First Initial Flow Pressure	37	PSI
(C) First Final Flow Pressure	37	PSI
(D) Initial Closed-in Pressure	824	PSI
(E) Second Initial Flow Pressure	46	PSI
(F) Second Final Flow Pressure	50	PSI
(G) Final Closed-in Pressure	1050	PSI
(H) Final Hydrostatic Mud	2569	PSI



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Company Bowers Drilling Company Lease & Well No. Robbins #1
Elevation 2047' K.B. Ticket Number 4028
Date 5-17-64 Sec. 27 Twp. 29S Range 17W County Kiowa State Kansas
Test Approved by Robert E. McCann Western Representative George Tew

Formation Test No. 2 O.K. ☒ Misrun ☐ Interval Tested From 4742' to 4804' Total Depth 4804'
Size Main Hole 7 7/8" Rat Hole None Conv. ☒ B.T. ☐ Damaged Yes ☒ No ☐ Conv. ☒ B.T. ☐ Damaged Yes ☒ No ☐
Packer Depth 4742 Ft. Size 6 3/4" Packer Depth 4737 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" IF & FH Anchor Length 62 Ft. Size 30' 4 1/2" D P
32' 5 1/2" OD

RECORDERS Depth 4767 Ft. Clock No. 6861 Depth 4770 Ft. Clock No. 120
Top Make Amer. ds Cap. 4200# No. 1558 Inside Outside Bottom Make Western Cap. 4000# No. 60 Inside Outside
Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside
Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 12:45A M
Tool Open I.F.P. From 12:48A M to 12:53A M - Hr. 5 Min. From (B) 56 P.S.I. To (C) 56 P.S.I.
Tool Closed I.C.I.P. From 12:53A M. to 1:23A M. - Hr. 30 Min. (D) 1351 P.S.I.
Tool Open F.F.P. From 1:23A M. to 2:53A M. - Hr. 30 Min. From (E) 73 P.S.I. To (F) 89 P.S.I.
Tool Closed F.C.I.P. From 2:53A M. to 3:38A M. - Hr. 45 Min. (G) 1135 P.S.I.
Initial Hydrostatic Pressure (A) 2593 P.S.I. Final Hydrostatic Pressure (H) 2572 P.S.I.

SURFACE Size Choke 1/2 In. Max. Press. P.S.I. Time Description of Flow
INFORMATION M.
 M.
 M.

BLOW Fair blow throughout test Bottom Choke Size 3/4 in.
Did Well Flow Yes ☒ No ☐ Recovery Total Ft. 150' Mud with speck of oil

Reversed Out Yes ☒ No ☐ Mud Type Starch Viscosity 57 Weight 9.8 Maximum Temp. 128 °F
EXTRA EQUIPMENT: Dual Packers Yes Safety Joint Yes Jars: Size 4 1/2" OD Make Bowen Ser. No. 2638
Type Circ. Sub. Plug Did Tool Plug? No Where? Did Packer Hold? Yes
Length Drill Pipe 4595 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe ft. I.D. Weight Pipe in. Length Drill Collars 120 ft.
I. D. Drill Collars 2.25 in. Length D. S. T. Tool 89 ft.

Remarks

WESTERN TESTING CO., INC.

Pressure Data

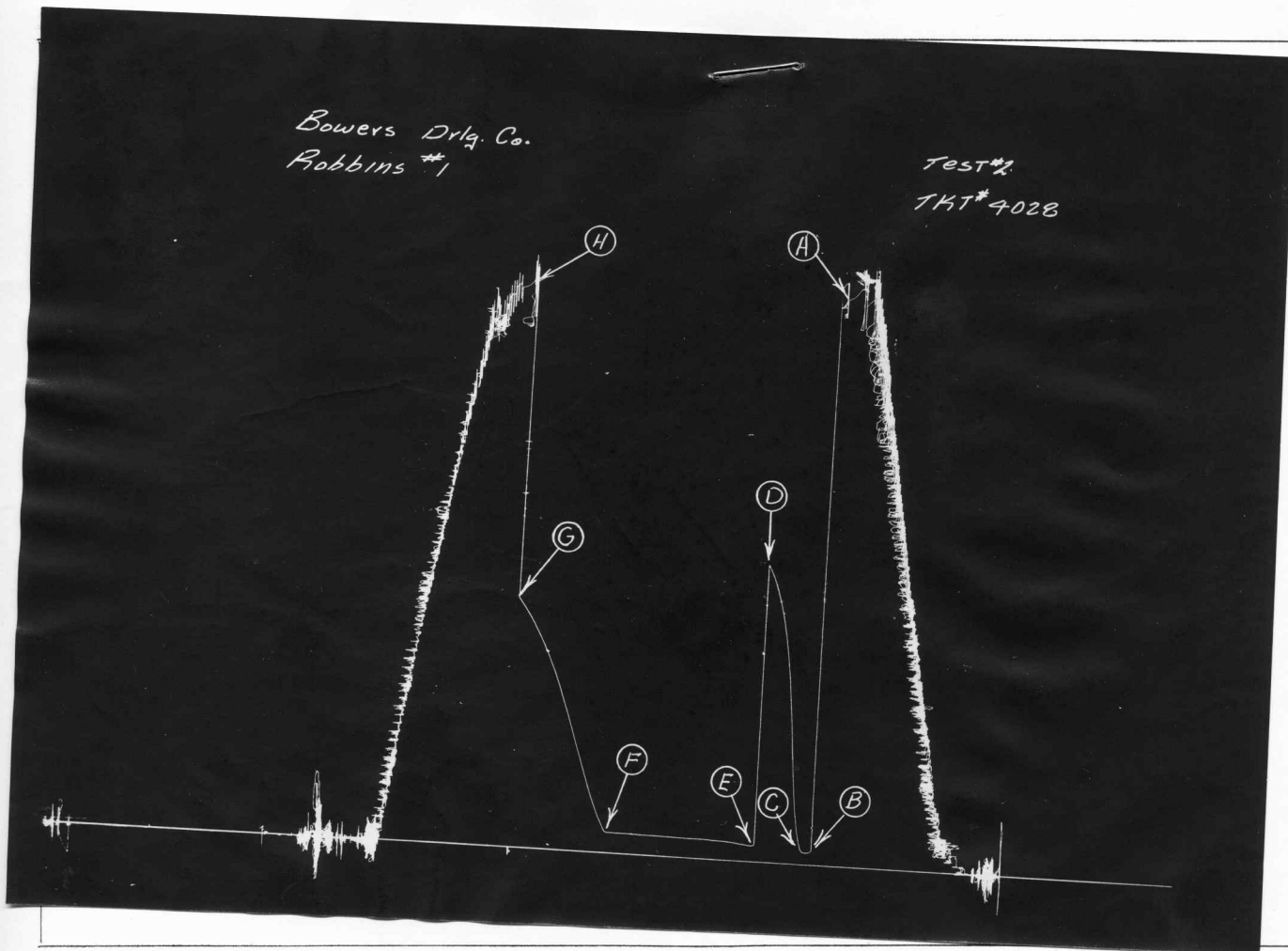
Date 5-17-64 Test Ticket No. 4028
 Recorder No. 1558 Capacity 4200# Location 4767 Ft.
 Clock No. 6861 Elevation 2047' K.B. Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2593</u>	P.S.I.	<u>12:45A</u>	<u>12:45 AM</u>
B First Initial Flow Pressure	<u>56</u>	P.S.I.	<u>5</u> Mins.	<u>5</u> Mins.
C First Final Flow Pressure	<u>56</u>	P.S.I.	<u>50</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>1351</u>	P.S.I.	<u>90</u> Mins.	<u>90</u> Mins.
E Second Initial Flow Pressure	<u>73</u>	P.S.I.	<u>45</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>89</u>	P.S.I.		
G Final Closed-in Pressure	<u>1135</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2572</u> <u>2572</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>11</u> Inc.	Breakdown: <u>18</u> Inc.	Breakdown: <u>20</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>-</u> Min.	final inc. of <u>-</u> Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>56</u>	<u>0</u>	<u>56</u>	<u>0</u>	<u>73</u>	<u>0</u>	<u>89</u>
P 2 <u>5</u>	<u>56</u>	<u>3</u>	<u>132</u>	<u>5</u>	<u>75</u>	<u>3</u>	<u>126</u>
P 3		<u>6</u>	<u>272</u>	<u>10</u>	<u>80</u>	<u>6</u>	<u>172</u>
P 4		<u>9</u>	<u>424</u>	<u>15</u>	<u>83</u>	<u>9</u>	<u>232</u>
P 5		<u>12</u>	<u>626</u>	<u>20</u>	<u>86</u>	<u>12</u>	<u>278</u>
P 6		<u>15</u>	<u>793</u>	<u>25</u>	<u>88</u>	<u>15</u>	<u>341</u>
P 7		<u>18</u>	<u>933</u>	<u>30</u>	<u>89</u>	<u>18</u>	<u>400</u>
P 8		<u>21</u>	<u>1050</u>	<u>35</u>	<u>89</u>	<u>21</u>	<u>464</u>
P 9		<u>24</u>	<u>1142</u>	<u>40</u>	<u>89</u>	<u>24</u>	<u>527</u>
P10		<u>27</u>	<u>1223</u>	<u>45</u>	<u>89</u>	<u>27</u>	<u>589</u>
P11		<u>30</u>	<u>1286</u>	<u>50</u>	<u>89</u>	<u>30</u>	<u>647</u>
P12		<u>33</u>	<u>1351</u>	<u>55</u>	<u>89</u>	<u>33</u>	<u>708</u>
P13				<u>60</u>	<u>89</u>	<u>36</u>	<u>770</u>
P14				<u>65</u>	<u>89</u>	<u>39</u>	<u>826</u>
P15				<u>70</u>	<u>89</u>	<u>42</u>	<u>866</u>
P16				<u>75</u>	<u>89</u>	<u>45</u>	<u>914</u>
P17				<u>80</u>	<u>89</u>	<u>48</u>	<u>974</u>
P18				<u>85</u>	<u>89</u>	<u>51</u>	<u>995</u>
P19				<u>90</u>	<u>89</u>	<u>54</u>	<u>1035</u>
P20						<u>57</u>	<u>1077</u>
						<u>60</u>	<u>1135</u>



This is an actual photograph of recorder chart.

POINT	PRESSURE	
(A) Initial Hydrostatic Mud	2593	PSI
(B) First Initial Flow Pressure	56	PSI
(C) First Final Flow Pressure	56	PSI
(D) Initial Closed-in Pressure	1351	PSI
(E) Second Initial Flow Pressure	73	PSI
(F) Second Final Flow Pressure	89	PSI
(G) Final Closed-in Pressure	1135	PSI
(H) Final Hydrostatic Mud	2572	PSI