



Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Abercrombie Drilling Inc. Lease & Well No. Powell #1
Elevation 2564 Kelly Bushings Formation Toronto Lansing Effective Pay _____ Ft. Ticket No. 16516
Date 9-4-72 Sec. 32 Twp. 1S Range 26W County Decatur State Kansas
Test Approved by Jack K. Whorton Western Representative James W. Holloway
Formation Test No. 1 O.K. X Misrun _____ Interval Tested From 3310' to 3355' Total Depth 3355'
Size Main Hole 7 7/8" Rat Hole _____ Conv. X B.T. _____ Damaged _____ Yes X No Conv. _____ B.T. X Damaged _____ Yes X No
Packer Depth 3305 Ft. Size 6 3/4" Packer Depth 3310 Ft. Size 6 3/4"
Straddle _____ Yes _____ No X Conv. _____ B.T. _____ Damaged _____ Yes _____ No
Packer Depth _____ Ft. Size _____
Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 45 Ft. Size 5 1/2" O.D.
RECORDERS Depth 3347 Ft. Clock No. 9725 Depth 3349 Ft. Clock No. 6774
Top Make Kuster Cap 4150 No. 2607 Inside _____ Outside _____ Bottom Make Kuster Cap 4200 No. 1558 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 3:59 A. M.
Tool Open I.F.P. From 4:02 M. to 4:12 A.M. Hr. 10 Min. From (B) 67 P.S.I. To (C) 71 P.S.I.
Tool Closed I.C.I.P. From 4:12 M. to 4:57 A.M. Hr. 45 Min. (D) 1148 P.S.I.
Tool Open F.F.P. From 4:57 M. to 5:57 A.M. 1 Hr. 00 Min. From (E) 92 P.S.I. To (F) 137 P.S.I.
Tool Closed F.C.I.P. From 5:57 M. to 6:42 A.M. Hr. 45 Min. (G) 1006 P.S.I.
Initial Hydrostatic Pressure (A) 1763 P.S.I. Final Hydrostatic Pressure (H) 1752 P.S.I.
SURFACE Size Choke 3/8 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
_____ M. _____
_____ M. _____
BLOW Fair Increasing to Strong Bottom Choke Size 3/4 In.
Did Well Flow _____ Yes X No _____ Recovery Total Ft. 60 feet Muddy Salt Water
140 feet Water Cut Mud
Reversed Out _____ Yes X No _____ Mud Type Chem Viscosity 39 Weight 9.8 Water Loss 10.8 cc. Maximum Temp. 99 °F
Type Circ. Sub. Plug Safety Joint _____ Jars: Size _____ Make _____ Ser. No. _____
EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where? _____
Length Drill Pipe 1552 ft. I.D. Drill Pipe 3.3 in. Length Weight Pipe 1738 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars _____ ft.
I.D. Drill Collars _____ in. Length D.S.T. Tool 65 ft.
Remarks _____

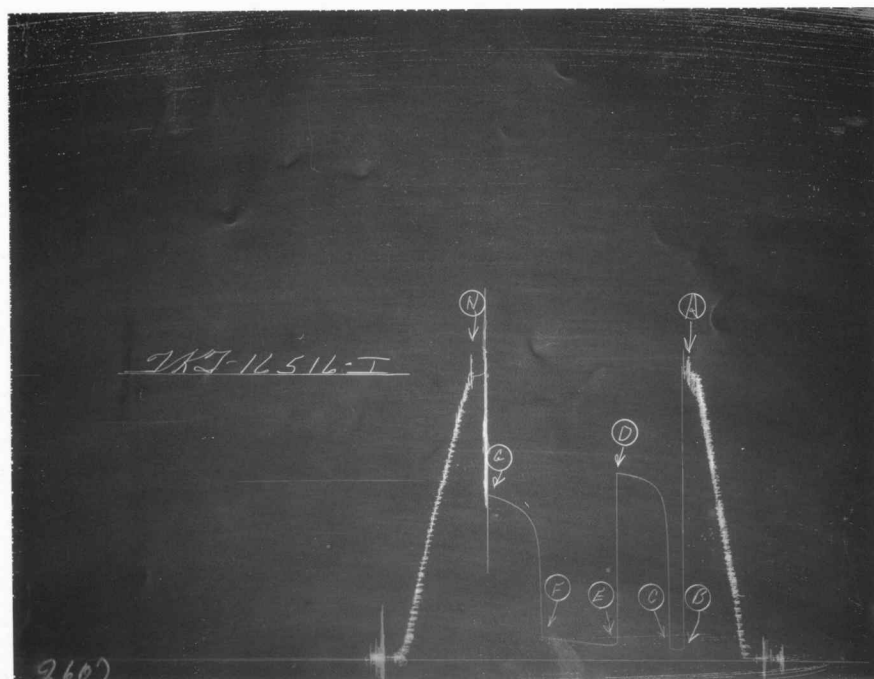
WESTERN TESTING CO., INC.

Pressure Data

Date September 4, 1972 Test Ticket No. 16516
 Recorder No. 2607 Capacity 4150 Location 3347 Ft.
 Clock No. 9725 Elevation 2564 Kelly Bushings Well Temperature 99 °F
 Point Pressure Time Given Time Computed
 A Initial Hydrostatic Mud 1763 P.S.I. Open Tool 3:59 A.M.
 B First Initial Flow Pressure 67 P.S.I. First Flow Pressure 10 Mins. 11 Mins.
 C First Final Flow Pressure 71 P.S.I. Initial Closed-in Pressure 45 Mins. 45 Mins.
 D Initial Closed-in Pressure 1148 P.S.I. Second Flow Pressure 60 Mins. 60 Mins.
 E Second Initial Flow Pressure 92 P.S.I. Final Closed-in Pressure 45 Mins. 45 Mins.
 F Second Final Flow Pressure 137 P.S.I.
 G Final Closed-in Pressure 1006 P.S.I.
 H Final Hydrostatic Mud 1752 P.S.I.

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>2</u> Inc.		Breakdown: <u>15</u> Inc.		Breakdown: <u>12</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>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>67</u>	<u>0</u>	<u>71</u>	<u>0</u>	<u>92</u>	<u>0</u>	<u>137</u>
P 2 <u>5</u>	<u>67</u>	<u>3</u>	<u>735</u>	<u>5</u>	<u>92</u>	<u>3</u>	<u>635</u>
P 3 <u>10</u>	<u>69</u>	<u>6</u>	<u>928</u>	<u>10</u>	<u>94</u>	<u>6</u>	<u>782</u>
P 4 <u>11</u>	<u>71</u>	<u>9</u>	<u>1002</u>	<u>15</u>	<u>95</u>	<u>9</u>	<u>839</u>
P 5		<u>12</u>	<u>1039</u>	<u>20</u>	<u>100</u>	<u>12</u>	<u>872</u>
P 6		<u>15</u>	<u>1064</u>	<u>25</u>	<u>103</u>	<u>15</u>	<u>897</u>
P 7		<u>18</u>	<u>1081</u>	<u>30</u>	<u>107</u>	<u>18</u>	<u>918</u>
P 8		<u>21</u>	<u>1094</u>	<u>35</u>	<u>112</u>	<u>21</u>	<u>931</u>
P 9		<u>24</u>	<u>1104</u>	<u>40</u>	<u>116</u>	<u>24</u>	<u>943</u>
P10		<u>27</u>	<u>1110</u>	<u>45</u>	<u>120</u>	<u>27</u>	<u>956</u>
P11		<u>30</u>	<u>1121</u>	<u>50</u>	<u>126</u>	<u>30</u>	<u>968</u>
P12		<u>33</u>	<u>1130</u>	<u>55</u>	<u>131</u>	<u>33</u>	<u>977</u>
P13		<u>36</u>	<u>1138</u>	<u>60</u>	<u>137</u>	<u>36</u>	<u>985</u>
P14		<u>39</u>	<u>1143</u>			<u>39</u>	<u>993</u>
P15		<u>42</u>	<u>1146</u>			<u>42</u>	<u>1000</u>
P16		<u>45</u>	<u>1148</u>			<u>45</u>	<u>1006</u>
P17							
P18							
P19							
P20							



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1742	1763	PSI
(B) First Initial Flow Pressure	63	67	PSI
(C) First Final Flow Pressure	74	71	PSI
(D) Initial Closed-in Pressure	1144	1148	PSI
(E) Second Initial Flow Pressure	95	92	PSI
(F) Second Final Flow Pressure	148	137	PSI
(G) Final Closed-in Pressure	1008	1006	PSI
(H) Final Hydrostatic Mud	1742	1752	PSI



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Company Abercrombie Drilling Inc. Lease & Well No. Powell #1
Elevation 2564 Kelly Bushings Formation Lansing Effective Pay _____ Ft. Ticket No. 16517
Date 9-4-72 Sec. 32 Twp. 1S Range 26W County Decatur State Kansas
Test Approved by Jack K. Wharton Western Representative James W. Holloway

Formation Test No. 2 O.K. ☒ Misrun _____ Interval Tested From 3356' to 3377' Total Depth 3377'
Size Main Hole 7 7/8" Rat Hole _____ Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No Conv. _____ B.T. ☒ Damaged _____ Yes ☒ No
Packer Depth 3351 Ft. Size 6 3/4" Packer Depth 3356 Ft. Size 6 3/4"
Straddle _____ Yes _____ No ☒ Conv. _____ B.T. _____ Damaged _____ Yes _____ No

Packer Depth _____ Ft. Size _____
Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 21 Ft. Size 5 1/2" O.D.

RECORDERS Depth 3369 Ft. Clock No. 9725 Depth 3371 Ft. Clock No. 6774
Top Make Kuster Cap 4150 No. 2607 Inside _____ Outside _____ Bottom Make Kuster Cap 4200 No. 1558 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 8:48 P. M
Tool Open I.F.P. From 8:51 M. to 9:01 P.M. Hr. 10 Min. From (B) 8 P.S.I. To (C) 19 P.S.I.
Tool Closed I.C.I.P. From 9:01 M. to 9:46 P.M. Hr. 45 Min. (D) 583 P.S.I.
Tool Open F.F.P. From 9:46 M. to 11:16 P.M. 1 Hr. 30 Min. From (E) 37 P.S.I. To (F) 43 P.S.I.
Tool Closed F.C.I.P. From 11:16 M. to 12:16 A.M. 1 Hr. 00 Min. (G) 535 P.S.I.

Initial Hydrostatic Pressure (A) 1785 P.S.I. Final Hydrostatic Pressure (H) 1778 P.S.I.

SURFACE Size Choke 3/8 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
_____ M. _____
_____ M. _____

BLOW Weak increasing to Fair Bottom Choke Size 3/4 In.

Did Well Flow _____ Yes ☒ No _____ Recovery Total Ft. 10 feet Clean Oil

40 feet Heavy Oil Cut Mud

130 feet Gas in Pipe

Reversed Out _____ Yes ☒ No _____ Mud Type Chem Viscosity 40 Weight 9.6 Water Loss 10.0 cc. Maximum Temp. 99 °F

Type Circ. Sub. Plug Safety Joint _____ Jars: Size _____ Make _____ Ser. No. _____

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where? _____

Length Drill Pipe 1598 ft. I.D. Drill Pipe 3.3 in. Length Weight Pipe 1738 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars _____ ft.

I.D. Drill Collars _____ in. Length D.S.T. Tool 41 ft.

Remarks

WESTERN TESTING CO., INC.

Pressure Data

Date September 4, 1972

Test Ticket No. 16517

Recorder No. 2607 Capacity 4150 Location 3369 Ft.

Clock No. 9725 Elevation 2564 Kelly Bushings Well Temperature 99 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1785</u>	P.S.I.	<u>8:48</u>	P. M
B First Initial Flow Pressure	<u>8</u>	P.S.I.	<u>10</u>	Mins. <u>12</u> Mins.
C First Final Flow Pressure	<u>19</u>	P.S.I.	<u>45</u>	Mins. <u>45</u> Mins.
D Initial Closed-in Pressure	<u>583</u>	P.S.I.	<u>90</u>	Mins. <u>90</u> Mins.
E Second Initial Flow Pressure	<u>37</u>	P.S.I.	<u>60</u>	Mins. <u>60</u> Mins.
F Second Final Flow Pressure	<u>43</u>	P.S.I.		
G Final Closed-in Pressure	<u>535</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1778</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>2</u> Inc.		Breakdown: <u>15</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>2</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>8</u>	<u>0</u>	<u>19</u>	<u>0</u>	<u>37</u>	<u>0</u>	<u>43</u>
P 2 <u>5</u>	<u>16</u>	<u>3</u>	<u>33</u>	<u>5</u>	<u>37</u>	<u>3</u>	<u>46</u>
P 3 <u>10</u>	<u>18</u>	<u>6</u>	<u>54</u>	<u>10</u>	<u>37</u>	<u>6</u>	<u>52</u>
P 4 <u>12</u>	<u>19</u>	<u>9</u>	<u>120</u>	<u>15</u>	<u>37</u>	<u>9</u>	<u>61</u>
P 5		<u>12</u>	<u>251</u>	<u>20</u>	<u>37</u>	<u>12</u>	<u>71</u>
P 6		<u>15</u>	<u>376</u>	<u>25</u>	<u>37</u>	<u>15</u>	<u>86</u>
P 7		<u>18</u>	<u>442</u>	<u>30</u>	<u>37</u>	<u>18</u>	<u>105</u>
P 8		<u>21</u>	<u>487</u>	<u>35</u>	<u>38</u>	<u>21</u>	<u>130</u>
P 9		<u>24</u>	<u>516</u>	<u>40</u>	<u>39</u>	<u>24</u>	<u>162</u>
P10		<u>27</u>	<u>535</u>	<u>45</u>	<u>40</u>	<u>27</u>	<u>205</u>
P11		<u>30</u>	<u>549</u>	<u>50</u>	<u>40</u>	<u>30</u>	<u>256</u>
P12		<u>33</u>	<u>560</u>	<u>55</u>	<u>41</u>	<u>33</u>	<u>314</u>
P13		<u>36</u>	<u>568</u>	<u>60</u>	<u>41</u>	<u>36</u>	<u>366</u>
P14		<u>39</u>	<u>574</u>	<u>65</u>	<u>41</u>	<u>39</u>	<u>408</u>
P15		<u>42</u>	<u>581</u>	<u>70</u>	<u>42</u>	<u>42</u>	<u>442</u>
P16		<u>45</u>	<u>583</u>	<u>75</u>	<u>42</u>	<u>45</u>	<u>470</u>
P17				<u>80</u>	<u>42</u>	<u>48</u>	<u>491</u>
P18				<u>85</u>	<u>42</u>	<u>51</u>	<u>506</u>
P19				<u>90</u>	<u>43</u>	<u>54</u>	<u>518</u>
P20						<u>57</u>	<u>527</u>
						<u>60</u>	<u>535</u>



This is an actual photograph of recorder chart.

POINT	PRESSURE		PSI
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1805	1785	PSI
(B) First Initial Flow Pressure	11	8	PSI
(C) First Final Flow Pressure	15	19	PSI
(D) Initial Closed-in Pressure	592	583	PSI
(E) Second Initial Flow Pressure	36	37	PSI
(F) Second Final Flow Pressure	42	43	PSI
(G) Final Closed-in Pressure	540	535	PSI
(H) Final Hydrostatic Mud	1805	1778	PSI



Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Abercrombie Drilling Inc. Lease & Well No. Powell #1

Elevation 2564 Kelly Bushings Formation Lansing Effective Pay _____ Ft. Ticket No. 16518

Date 9-5-72 Sec. 32 Twp. 18 Range 26W County Decatur State Kansas

Test Approved by Jack K. Wharton Western Representative James W. Holloway

Formation Test No. 3 O.K. X Misrun _____ Interval Tested From 3375' to 3390' Total Depth 3390'

Size Main Hole 7 7/8" Rat Hole _____ Conv. X B.T. _____ Damaged _____ Yes X No Conv. _____ B.T. X Damaged _____ Yes X No

Packer Depth 3370 Ft. Size 6 3/4" Packer Depth 3375 Ft. Size 6 3/4"

Straddle _____ Yes _____ No X Conv. _____ B.T. _____ Damaged _____ Yes _____ No

Packer Depth _____ Ft. Size _____

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" P.H. Anchor Length 15 Ft. Size 5 1/2" O.D.

RECORDERS Depth 3382 Ft. Clock No. 9725 Depth 3384 Ft. Clock No. 6774

Top Make Kuster Cap 4150 No. 2607 Inside _____ Outside _____ Bottom Make Kuster Cap 4200 No. 1558 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 8:18 A. M

Tool Open I.F.P. From 8:21 M. to 8:51 A.M. Hr. 30 Min. From (B) 4 P.S.I. To (C) 9 P.S.I.

Tool Closed I.C.I.P. From 8:51 M. to 9:36 A.M. Hr. 45 Min. (D) 664 P.S.I.

Tool Open F.F.P. From 9:36 M. to 11:06 A.M. 1 Hr. 30 Min. From (E) 21 P.S.I. To (F) 26 P.S.I.

Tool Closed F.C.I.P. From 11:06 M. to 12:06 P.M. 1 Hr. 00 Min. (G) 374 P.S.I.

Initial Hydrostatic Pressure (A) 1754 P.S.I. Final Hydrostatic Pressure (H) 1736 P.S.I.

SURFACE Size Choke 3/8 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____

INFORMATION _____ M. _____

_____ M. _____

_____ M. _____

BLOW Weak increasing to fair Bottom Choke Size 3/4 In.

Did Well Flow _____ Yes X No _____ Recovery Total Ft. 5 feet Clean Oil

35 feet Heavy Oil and Gas Cut Mud

60 feet Gas in Pipe

Reversed Out _____ Yes X No _____ Mud Type Chem Viscosity 40 Weight 9.6 Water Loss 10.0 cc. Maximum Temp. 99 °F

Type Circ. Sub. Plug Safety Joint _____ Jars: Size _____ Make _____ Ser. No. _____

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where? _____

Length Drill Pipe 1617 ft. I.D. Drill Pipe 2.3 in. Length Weight Pipe 1738 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars _____ ft.

I.D. Drill Collars _____ in. Length D.S.T. Tool 35 ft.

Remarks

WESTERN TESTING CO., INC.

Pressure Data

Date September 5, 1972

Test Ticket No. 16518

Recorder No. 2607 Capacity 4150 Location 3382 Ft.

Clock No. 9725 Elevation 2564 Kelly Bushings Well Temperature 99 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1754</u> P.S.I.	Open Tool	<u>8:18</u> A. M.	
B First Initial Flow Pressure	<u>4</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>9</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>664</u> P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>95</u> Mins.
E Second Initial Flow Pressure	<u>21</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>26</u> P.S.I.			
G Final Closed-in Pressure	<u>374</u> P.S.I.			
H Final Hydrostatic Mud	<u>1736</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: 6 Inc.

of 5 mins. and a

final inc. of _____ Min.

Initial Shut-In

Breakdown: 15 Inc.

of 3 mins. and a

final inc. of _____ Min.

Second Flow Pressure

Breakdown: 19 Inc.

of 5 mins. and a

final inc. of _____ Min.

Final Shut-In

Breakdown: 20 Inc.

of 3 mins. and a

final inc. of _____ Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>4</u>	<u>0</u>	<u>9</u>	<u>0</u>	<u>21</u>	<u>0</u>	<u>26</u>
P 2 <u>5</u>	<u>5</u>	<u>3</u>	<u>13</u>	<u>5</u>	<u>21</u>	<u>3</u>	<u>26</u>
P 3 <u>10</u>	<u>5</u>	<u>6</u>	<u>16</u>	<u>10</u>	<u>21</u>	<u>6</u>	<u>27</u>
P 4 <u>15</u>	<u>5</u>	<u>9</u>	<u>25</u>	<u>15</u>	<u>21</u>	<u>9</u>	<u>28</u>
P 5 <u>20</u>	<u>7</u>	<u>12</u>	<u>35</u>	<u>20</u>	<u>21</u>	<u>12</u>	<u>31</u>
P 6 <u>25</u>	<u>8</u>	<u>15</u>	<u>44</u>	<u>25</u>	<u>21</u>	<u>15</u>	<u>37</u>
P 7 <u>30</u>	<u>9</u>	<u>18</u>	<u>59</u>	<u>30</u>	<u>21</u>	<u>18</u>	<u>46</u>
P 8 _____		<u>21</u>	<u>78</u>	<u>35</u>	<u>21</u>	<u>21</u>	<u>52</u>
P 9 _____		<u>24</u>	<u>103</u>	<u>40</u>	<u>22</u>	<u>24</u>	<u>59</u>
P10 _____		<u>27</u>	<u>141</u>	<u>45</u>	<u>22</u>	<u>27</u>	<u>67</u>
P11 _____		<u>30</u>	<u>198</u>	<u>50</u>	<u>22</u>	<u>30</u>	<u>76</u>
P12 _____		<u>33</u>	<u>281</u>	<u>55</u>	<u>23</u>	<u>33</u>	<u>86</u>
P13 _____		<u>36</u>	<u>374</u>	<u>60</u>	<u>23</u>	<u>36</u>	<u>99</u>
P14 _____		<u>39</u>	<u>487</u>	<u>65</u>	<u>24</u>	<u>39</u>	<u>116</u>
P15 _____		<u>42</u>	<u>587</u>	<u>70</u>	<u>24</u>	<u>42</u>	<u>131</u>
P16 _____		<u>45</u>	<u>664</u>	<u>75</u>	<u>25</u>	<u>45</u>	<u>154</u>
P17 _____				<u>80</u>	<u>25</u>	<u>48</u>	<u>184</u>
P18 _____				<u>85</u>	<u>26</u>	<u>51</u>	<u>222</u>
P19 _____				<u>90</u>	<u>26</u>	<u>54</u>	<u>262</u>
P20 _____				<u>95</u>	<u>26</u>	<u>57</u>	<u>315</u>
						<u>60</u>	<u>374</u>

WESTERN TESTING CO., INC.

Pressure Data

ate September 5, 1972

Test Ticket No. 16518

recorder No. 2607

Capacity 4150

Location 3382 Ft.

lock No. 9725

Elevation 2564 Kelly Bushings

Well Temperature 99 °F

oint

Pressure

Time
Given

Time
Computed

Initial Hydrostatic Mud 1754 P.S.I.
First Initial Flow Pressure 4 P.S.I.
First Final Flow Pressure 9 P.S.I.
Initial Closed-in Pressure 664 P.S.I.
Second Initial Flow Pressure 21 P.S.I.
Second Final Flow Pressure 26 P.S.I.
Final Closed-in Pressure 374 P.S.I.
Final Hydrostatic Mud 1736 P.S.I.

Open Tool

First Flow Pressure

Initial Closed-in Pressure

Second Flow Pressure

Final Closed-in Pressure

8:18 A. M
30 Mins. 30 Mins.
45 Mins. 45 Mins.
90 Mins. 95 Mins.
60 Mins. 60 Mins.

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: 6 Inc.

of 5 mins. and a

final inc. of _____ Min.

Initial Shut-In

Breakdown: 15 Inc.

of 3 mins. and a

final inc. of _____ Min.

Second Flow Pressure

Breakdown: 19 Inc.

of 5 mins. and a

final inc. of _____ Min.

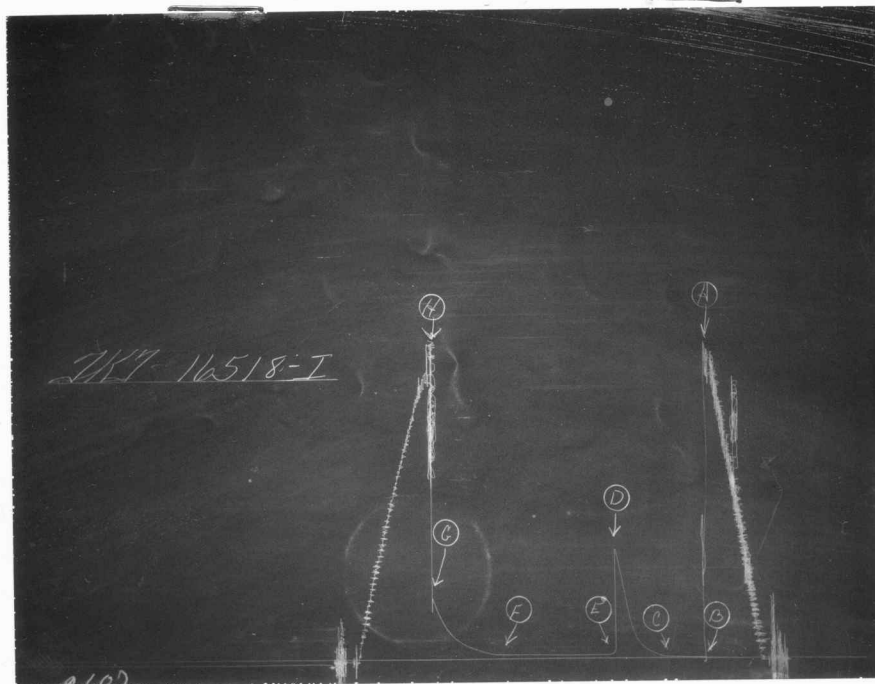
Final Shut-In

Breakdown: 20 Inc.

of 3 mins. and a

final inc. of _____ Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>4</u>	<u>0</u>	<u>9</u>	<u>0</u>	<u>21</u>	<u>0</u>	<u>26</u>
P 2 <u>5</u>	<u>5</u>	<u>3</u>	<u>13</u>	<u>5</u>	<u>21</u>	<u>3</u>	<u>26</u>
P 3 <u>10</u>	<u>5</u>	<u>6</u>	<u>16</u>	<u>10</u>	<u>21</u>	<u>6</u>	<u>27</u>
P 4 <u>15</u>	<u>5</u>	<u>9</u>	<u>25</u>	<u>15</u>	<u>21</u>	<u>9</u>	<u>28</u>
P 5 <u>20</u>	<u>7</u>	<u>12</u>	<u>35</u>	<u>20</u>	<u>21</u>	<u>12</u>	<u>31</u>
P 6 <u>25</u>	<u>8</u>	<u>15</u>	<u>44</u>	<u>25</u>	<u>21</u>	<u>15</u>	<u>37</u>
P 7 <u>30</u>	<u>9</u>	<u>18</u>	<u>59</u>	<u>30</u>	<u>21</u>	<u>18</u>	<u>46</u>
P 8 _____	_____	<u>21</u>	<u>78</u>	<u>35</u>	<u>21</u>	<u>21</u>	<u>52</u>
P 9 _____	_____	<u>24</u>	<u>103</u>	<u>40</u>	<u>22</u>	<u>24</u>	<u>59</u>
P10 _____	_____	<u>27</u>	<u>141</u>	<u>45</u>	<u>22</u>	<u>27</u>	<u>67</u>
P11 _____	_____	<u>30</u>	<u>198</u>	<u>50</u>	<u>22</u>	<u>30</u>	<u>76</u>
P12 _____	_____	<u>33</u>	<u>281</u>	<u>55</u>	<u>23</u>	<u>33</u>	<u>86</u>
P13 _____	_____	<u>36</u>	<u>374</u>	<u>60</u>	<u>23</u>	<u>36</u>	<u>99</u>
P14 _____	_____	<u>39</u>	<u>487</u>	<u>65</u>	<u>24</u>	<u>39</u>	<u>116</u>
P15 _____	_____	<u>42</u>	<u>587</u>	<u>70</u>	<u>24</u>	<u>42</u>	<u>131</u>
P16 _____	_____	<u>45</u>	<u>664</u>	<u>75</u>	<u>25</u>	<u>45</u>	<u>154</u>
P17 _____	_____	_____	_____	<u>80</u>	<u>25</u>	<u>48</u>	<u>184</u>
P18 _____	_____	_____	_____	<u>85</u>	<u>26</u>	<u>51</u>	<u>222</u>
P19 _____	_____	_____	_____	<u>90</u>	<u>26</u>	<u>54</u>	<u>262</u>
P20 _____	_____	_____	_____	<u>95</u>	<u>26</u>	<u>57</u>	<u>315</u>
						<u>60</u>	<u>374</u>



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1836	1754	PSI
(B) First Initial Flow Pressure	5	4	PSI
(C) First Final Flow Pressure	11	9	PSI
(D) Initial Closed-in Pressure	664	664	PSI
(E) Second Initial Flow Pressure	21	21	PSI
(F) Second Final Flow Pressure	26	26	PSI
(G) Final Closed-in Pressure	371	374	PSI
(H) Final Hydrostatic Mud	1836	1736	PSI



Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Abercrombie Drilling Inc. Lease & Well No. Powell #1

Elevation 2564 Kelly Bushings Formation Lansing Effective Pay _____ Ft. Ticket No. 16519

Date 9-6-72 Sec. 32 Twp. 1S Range 26W County Decatur State Kansas

Test Approved by Jack K. Wharton Western Representative James W. Holloway

Formation Test No. 4 O.K. ☒ Misrun _____ Interval Tested From 3395' to 3495' Total Depth 3495'

Size Main Hole 7 7/8" Rat Hole _____ Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No Conv. _____ B.T. ☒ Damaged _____ Yes ☒ No

Packer Depth 3390 Ft. Size 6 3/4" Packer Depth 3395 Ft. Size 6 3/4"

Straddle _____ Yes _____ No ☒ Conv. _____ B.T. _____ Damaged _____ Yes _____ No

Packer Depth _____ Ft. Size _____

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 100 Ft. Size 5 1/2" and 4 1/2" O.D.

RECORDERS Depth 3487 Ft. Clock No. 9725 Depth 3489 Ft. Clock No. 6774

Top Make Kuster Cap 4150 No. 2607 Inside _____ Outside _____ Bottom Make Kuster Cap 4200 No. 1558 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 2:30 A. M.

Tool Open I.F.P. From 2:33 M. to 3:03 A.M. Hr. 30 Min. From (B) 82 P.S.I. To (C) 95 P.S.I.

Tool Closed I.C.I.P. From 3:03 M. to 3:33 A.M. Hr. 30 Min. (D) 714 P.S.I.

Tool Open F.F.P. From 3:33 M. to 4:03 A.M. Hr. 30 Min. From (E) 112 P.S.I. To (F) 112 P.S.I.

Tool Closed F.C.I.P. From 4:03 M. to 4:33 A.M. Hr. 30 Min. (G) 478 P.S.I.

Initial Hydrostatic Pressure (A) 1841 P.S.I. Final Hydrostatic Pressure (H) 1836 P.S.I.

SURFACE Size Choke 3/8 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____

INFORMATION _____ M. _____

_____ M. _____

_____ M. _____

BLOW Very Weak for 30 minutes Bottom Choke Size 3/4 In.

Did Well Flow _____ Yes ☒ No _____ Recovery Total Ft. 20 feet Mud with oil spots on top

Reversed Out _____ Yes ☒ No _____ Mud Type Chem Viscosity 51 Weight 9.7 Water Loss 8.0 cc. Maximum Temp 100 °F

Type Circ. Sub. Plug Safety Joint _____ Jars: Size _____ Make _____ Ser. No. _____

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where? _____

Length Drill Pipe 1699 ft. I.D. Drill Pipe 3.3 in. Length Weight Pipe 1676 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars _____ ft.

I.D. Drill Collars _____ in. Length D.S.T. Tool 120 ft.

Remarks

WESTERN TESTING CO., INC.

Pressure Data

Date September 6, 1972 Test Ticket No. 16519

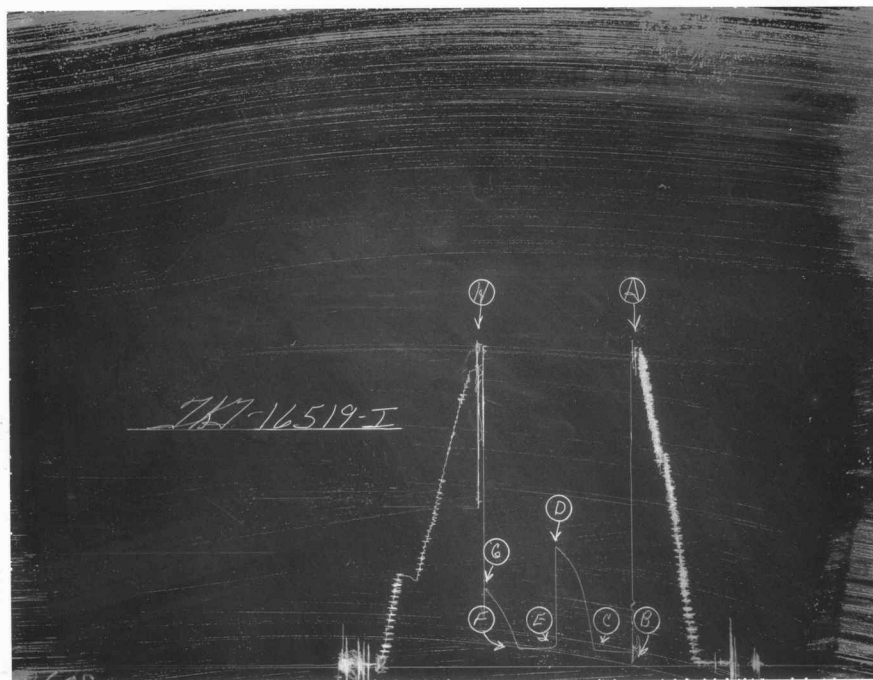
Recorder No. 2607 Capacity 4150 Location 3487 Ft.

Clock No. 9725 Elevation 2564 Kelly Bushings Well Temperature 100 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1841</u> P.S.I.	Open Tool	<u>2:30</u> A. M.	
B First Initial Flow Pressure	<u>82</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>95</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>714</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>112</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>112</u> P.S.I.			
G Final Closed-in Pressure	<u>478</u> P.S.I.			
H Final Hydrostatic Mud	<u>1836</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>6</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 _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>82</u>	<u>0</u>	<u>95</u>	<u>0</u>	<u>112</u>	<u>0</u>	<u>112</u>
P 2 <u>5</u>	<u>84</u>	<u>3</u>	<u>211</u>	<u>5</u>	<u>112</u>	<u>3</u>	<u>152</u>
P 3 <u>10</u>	<u>86</u>	<u>6</u>	<u>336</u>	<u>10</u>	<u>112</u>	<u>6</u>	<u>209</u>
P 4 <u>15</u>	<u>88</u>	<u>9</u>	<u>442</u>	<u>15</u>	<u>112</u>	<u>9</u>	<u>258</u>
P 5 <u>20</u>	<u>90</u>	<u>12</u>	<u>516</u>	<u>20</u>	<u>112</u>	<u>12</u>	<u>302</u>
P 6 <u>25</u>	<u>92</u>	<u>15</u>	<u>572</u>	<u>25</u>	<u>112</u>	<u>15</u>	<u>341</u>
P 7 <u>30</u>	<u>95</u>	<u>18</u>	<u>612</u>	<u>30</u>	<u>112</u>	<u>18</u>	<u>377</u>
P 8 _____	_____	<u>21</u>	<u>643</u>	_____	_____	<u>21</u>	<u>407</u>
P 9 _____	_____	<u>24</u>	<u>670</u>	_____	_____	<u>24</u>	<u>434</u>
P 10 _____	_____	<u>27</u>	<u>695</u>	_____	_____	<u>27</u>	<u>461</u>
P 11 _____	_____	<u>30</u>	<u>714</u>	_____	_____	<u>30</u>	<u>478</u>
P 12 _____	_____	_____	_____	_____	_____	_____	_____
P 13 _____	_____	_____	_____	_____	_____	_____	_____
P 14 _____	_____	_____	_____	_____	_____	_____	_____
P 15 _____	_____	_____	_____	_____	_____	_____	_____
P 16 _____	_____	_____	_____	_____	_____	_____	_____
P 17 _____	_____	_____	_____	_____	_____	_____	_____
P 18 _____	_____	_____	_____	_____	_____	_____	_____
P 19 _____	_____	_____	_____	_____	_____	_____	_____
P 20 _____	_____	_____	_____	_____	_____	_____	_____



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1899	1841	PSI
(B) First Initial Flow Pressure	95	82	PSI
(C) First Final Flow Pressure	105	95	PSI
(D) Initial Closed-in Pressure	737	714	PSI
(E) Second Initial Flow Pressure	116	112	PSI
(F) Second Final Flow Pressure	116	112	PSI
(G) Final Closed-in Pressure	487	478	PSI
(H) Final Hydrostatic Mud	1889	1836	PSI



Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Abercrombie Drilling Inc. Lease & Well No. Powell #1
Elevation 2564 Kelly Bushings Formation Kansas City Effective Pay _____ Ft. Ticket No. 16520
Date 9-6-72 Sec. 32 Twp. 1S Range 26W County Decatur State Kansas
Test Approved by _____ Western Representative _____

Formation Test No. 5 O.K. ☒ Misrun _____ Interval Tested From 3495' to 3514' Total Depth 3514'
Size Main Hole 7 7/8" Rat Hole _____ Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No Conv. _____ B.T. ☒ Damaged _____ Yes ☒ No
Packer Depth 3490 Ft. Size 6 3/4" Packer Depth 3495 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" F.H. Anchor Length 14 Ft. Size 5 1/2" O.D.

RECORDERS	Depth <u>3506</u> Ft.	Clock No. <u>9725</u>	Depth <u>3508</u> Ft.	Clock No. <u>6774</u>
	Top Make <u>Kuster</u> Cap <u>4150</u> No. <u>2607</u>	<u>Inside</u> <u>Outside</u>	Bottom Make <u>Kuster</u> Cap <u>4200</u> No. <u>1558</u>	<u>Inside</u> <u>Outside</u>
Below Straddle: Depth _____	Clock No. _____	<u>Inside</u> <u>Outside</u>	Depth _____	Clock No. _____
Top Make _____	Cap _____	<u>Inside</u> <u>Outside</u>	Bottom Make _____	Cap _____

Time Set Packer 1:26 P. M.
Tool Open I.F.P. From 1:29 M. to 1:44 P.M. Hr. 15 Min. From (B) 12 P.S.I. To (C) 31 P.S.I.
Tool Closed I.C.I.P. From 1:44 M. to 2:14 P.M. Hr. 30 Min. (D) 772 P.S.I.
Tool Open F.F.P. From 2:14 M. to 3:14 P.M. 1 Hr. 00 Min. From (E) 71 P.S.I. To (F) 139 P.S.I.
Tool Closed F.C.I.P. From 3:14 M. to 3:59 P.M. Hr. 45 Min. (G) 757 P.S.I.
Initial Hydrostatic Pressure (A) 1859 P.S.I. Final Hydrostatic Pressure (H) 1840 P.S.I.

SURFACE	Size Choke <u>3/8</u> In.	Max. Press. P.S.I.	Time	Description of Flow
INFORMATION	_____	_____	M.	_____
	_____	_____	M.	_____
	_____	_____	M.	_____

BLOW Strong through out Bottom Choke Size 3/4 In.

Did Well Flow _____ Yes ☒ No _____ Recovery Total Ft. 240 feet Clean Oil
120 feet Muddy Oil
669 feet Gas In Pipe

Reversed Out _____ Yes ☒ No _____ Mud Type Chem Viscosity 47 Weight 9.7 Water Loss 8.4 cc. Maximum Temp. 100 °F
Type Circ. Sub. Plug Safety Joint -- Jars: Size _____ Make _____ Ser. No. _____

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where? _____
Length Drill Pipe 1757 ft. I.D. Drill Pipe 3.3 in. Length Weight Pipe 1738 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars -- ft.
I.D. Drill Collars -- in. Length D.S.T. Tool 39 ft.

Remarks

WESTERN TESTING CO., INC.

Pressure Data

Date September 6, 1972Test Ticket No. 16520Recorder No. 2607Capacity 4150Location 3506 Ft.Block No. 9725Elevation 2564 Kelly BushingsWell Temperature 100 °F

Point

Pressure

Time
GivenTime
Computed

Initial Hydrostatic Mud 1859 P.S.I.
 First Initial Flow Pressure 12 P.S.I.
 First Final Flow Pressure 31 P.S.I.
 Initial Closed-in Pressure 772 P.S.I.
 Second Initial Flow Pressure 71 P.S.I.
 Second Final Flow Pressure 139 P.S.I.
 Final Closed-in Pressure 757 P.S.I.
 Final Hydrostatic Mud 1840 P.S.I.

Open Tool

First Flow Pressure

Initial Closed-in Pressure

Second Flow Pressure

Final Closed-in Pressure

1:26 P. M.15 Mins. 15 Mins.30 Mins. 30 Mins.60 Mins. 60 Mins.45 Mins. 45 Mins.

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: 3 Inc.of 5 mins. and a

final inc. of _____ Min.

Initial Shut-In

Breakdown: 10 Inc.of 3 mins. and a

final inc. of _____ Min.

Second Flow Pressure

Breakdown: 12 Inc.of 5 mins. and a

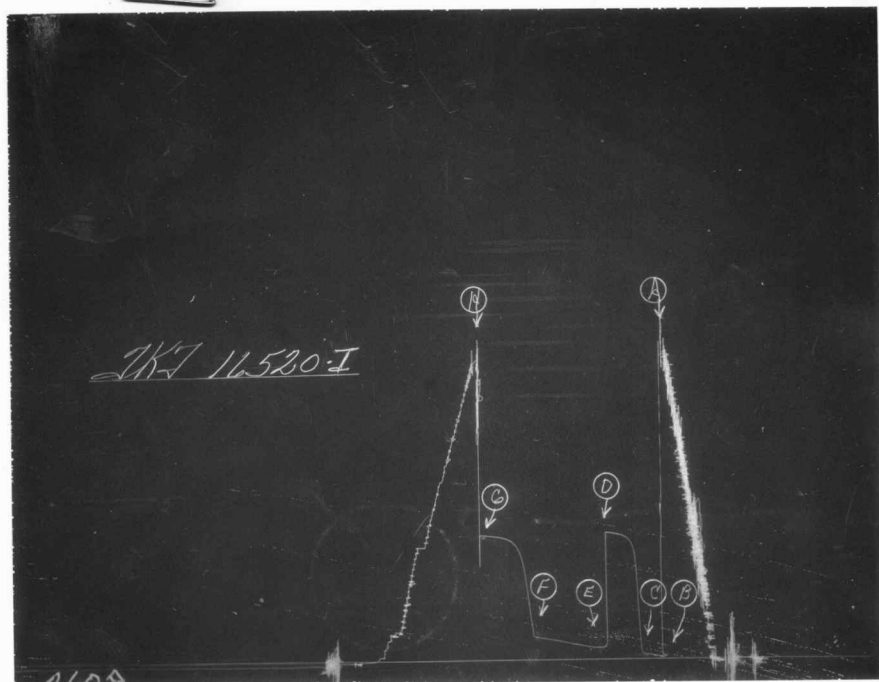
final inc. of _____ Min.

Final Shut-In

Breakdown: 15 Inc.of 3 mins. and a

final inc. of _____ Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>12</u>	<u>0</u>	<u>31</u>	<u>0</u>	<u>71</u>	<u>0</u>	<u>139</u>
P 2 <u>5</u>	<u>16</u>	<u>3</u>	<u>218</u>	<u>5</u>	<u>71</u>	<u>3</u>	<u>258</u>
P 3 <u>10</u>	<u>25</u>	<u>6</u>	<u>535</u>	<u>10</u>	<u>72</u>	<u>6</u>	<u>423</u>
P 4 <u>15</u>	<u>31</u>	<u>9</u>	<u>687</u>	<u>15</u>	<u>78</u>	<u>9</u>	<u>566</u>
P 5 _____	_____	<u>12</u>	<u>724</u>	<u>20</u>	<u>86</u>	<u>12</u>	<u>647</u>
P 6 _____	_____	<u>15</u>	<u>743</u>	<u>25</u>	<u>90</u>	<u>15</u>	<u>691</u>
P 7 _____	_____	<u>18</u>	<u>755</u>	<u>30</u>	<u>99</u>	<u>18</u>	<u>716</u>
P 8 _____	_____	<u>21</u>	<u>762</u>	<u>35</u>	<u>107</u>	<u>21</u>	<u>730</u>
P 9 _____	_____	<u>24</u>	<u>766</u>	<u>40</u>	<u>114</u>	<u>24</u>	<u>739</u>
P10 _____	_____	<u>27</u>	<u>768</u>	<u>45</u>	<u>122</u>	<u>27</u>	<u>743</u>
P11 _____	_____	<u>30</u>	<u>772</u>	<u>50</u>	<u>129</u>	<u>30</u>	<u>749</u>
P12 _____	_____	_____	_____	<u>55</u>	<u>133</u>	<u>33</u>	<u>751</u>
P13 _____	_____	_____	_____	<u>60</u>	<u>139</u>	<u>36</u>	<u>754</u>
P14 _____	_____	_____	_____	_____	_____	<u>39</u>	<u>755</u>
P15 _____	_____	_____	_____	_____	_____	<u>42</u>	<u>756</u>
P16 _____	_____	_____	_____	_____	_____	<u>45</u>	<u>757</u>
P17 _____	_____	_____	_____	_____	_____	_____	_____
P18 _____	_____	_____	_____	_____	_____	_____	_____
P19 _____	_____	_____	_____	_____	_____	_____	_____
P20 _____	_____	_____	_____	_____	_____	_____	_____



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1847	1859	PSI
(B) First Initial Flow Pressure	15	12	PSI
(C) First Final Flow Pressure	32	31	PSI
(D) Initial Closed-in Pressure	779	772	PSI
(E) Second Initial Flow Pressure	63	71	PSI
(F) Second Final Flow Pressure	148	139	PSI
(G) Final Closed-in Pressure	768	757	PSI
(H) Final Hydrostatic Mud	1847	1840	PSI