



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

Company Kern Drilling Company Lease & Well No. Kachelman #a-1
Elevation 1961 Ground Level Formation Kansas City Ticket Number 6840
Date Feb. 28, 1966 Sec. 13 Twp. 25s Range 14w County Stafford State Kansas
Test Approved by J. Copeland Landes Western Representative W. M. Nething

Formation Test No. 1 O.K. Misrun Interval Tested From 3704' to 3730' Total Depth 3730'
Size Main Hole 7 7/8 Test Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Packer Depth 3704 Ft. Size 6 3/4 Packer Depth 3699 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 XH & 4 1/2 FH Anchor Length 26 Ft. Size 5 1/2 OD
RECORDERS Depth 3712 Ft. Clock No. 6896 Depth 3715 Ft. Clock No. 6899
Top Make Amerada Cap. 3150 No. 1563 ~~Outside~~ Inside Bottom Make Amerada Cap. 3150 No. 1560 ~~Inside~~ Outside
Below Straddle: Depth _____ Clock No. _____ Inside Depth _____ Ft. Clock No. _____ Inside
Top Make _____ Cap. _____ No. _____ Inside Bottom Make _____ Cap. _____ No. _____ Outside

Time Set Packer 10:25 P M
Tool Open I.F.P. From 10:27 P M to 10:47 M Hr. 20 Min. From (B) 66 P.S.I. To (C) 68 P.S.I.
Tool Closed I.C.I.P. From 10:47 P M to 11:17 P M Hr. 30 Min. (D) 170 P.S.I.
Tool Open F.F.P. From 11:17 P M to 11:37 M Hr. 20 Min. From (E) 74 P.S.I. To (F) 74 P.S.I.
Tool Closed F.C.I.P. From 11:37 M to 12:07 M Hr. 30 Min. (G) 144 P.S.I.
Initial Hydrostatic Pressure (A) 1951 P.S.I. Final Hydrostatic Pressure (H) 1922 P.S.I.

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

BLOW Weak blow 13 minutes. Bottom Choke Size 3/4 In.
Did Well Flow Yes No Recovery Total Ft. 100' mud with spots of oil in top tool
Mud _____

Reversed Out Yes No Mud Type starch Viscosity 38 Weight 10 Maximum Temp. 110 °F
EXTRA EQUIPMENT: Dual Packers dual Safety Joint no Jars: Size no Make _____ Ser. No. _____
Type Circ. Sub. plug Did Tool Plug? no Where? _____ Did Packer Hold? yes
Length Drill Pipe 2478 ft. I.D. Drill Pipe 3.8 in Length Weight Pipe 1206 ft. I.D. Weight Pipe 2.7 in Length Drill Collars _____ ft.
I. D. Drill Collars _____ in Length D.S.T. Tool 46 ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date February 28, 1966 Test Ticket No. 6840
 Recorder No. 1563 Capacity 3150 Location 3712 Ft.
 Clock No. 6896 Elevation 1961 Ground Level Well Temperature 110 °F

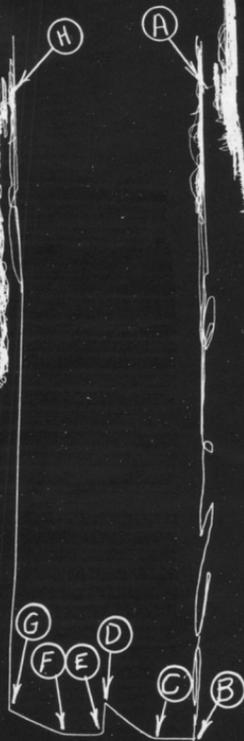
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1951	P.S.I.	10:25 P	M
B First Initial Flow Pressure	66	P.S.I.	20 Mins.	20 Mins.
C First Final Flow Pressure	68	P.S.I.	30 Mins.	28 Mins.
D Initial Closed-in Pressure	170	P.S.I.	20 Mins.	20 Mins.
E Second Initial Flow Pressure	74	P.S.I.	30 Mins.	30 Mins.
F Second Final Flow Pressure	74	P.S.I.		
G Final Closed-in Pressure	144	P.S.I.		
H Final Hydrostatic Mud	1922	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Press.	Initial Shut-In	Second Flow Pressure	Final Shut-In
	Breakdown: <u>4</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>9</u> Inc. of <u>3</u> mins. and a final inc. of <u>1</u> Min.	Breakdown: <u>4</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Point Minutes	Point Minutes	Point Minutes	Point Minutes
P 1	0	0	0	0
P 2	5	3	5	3
P 3	10	6	10	6
P 4	15	9	15	9
P 5	20	12	20	12
P 6		15		15
P 7		18		18
P 8		21		21
P 9		24		24
P10		27		27
P11		28		30
P12				
P13				
P14				
P15				
P16				
P17				
P18				
P19				
P20				

KERN DRUG CO.
KACHELMAN "A" #1

TEST #1
TKI #6840





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

Company Kern Drilling Company Lease & Well No. Kachelman #a-1
Elevation 1961 Ground Level Formation Mississippi Ticket Number 6841
Date March 1, 1966 Sec. 13 Twp. 25s Range 14w County Stafford State Kansas
Test Approved by J. Copeland Landes Western Representative W. M. Nething

Formation Test No. 2 O.K. Misrun Interval Tested From 4060' to 4083' Total Depth 4083'
Size Main Hole 7 7/8 Rat Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Packer Depth 4060 Ft. Size 6 3/4 Packer Depth 4050 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 Jr. Size 4 1/2 XH & 4 1/2 FH Anchor Length 23 Ft. Size 5 1/2 OD
RECORDERS Depth 4068 Ft. Clock No. 6896 Depth 4071 Ft. Clock No. 6899
Top Make Amerada Cap. 3150 No. 1563 Inside Outside Bottom Make Amerada Cap. 3150 No. 1560 Inside Outside
Below Straddle: Depth _____ Clock No. _____ Depth _____ Ft. Clock No. _____
Top Make _____ Cap. _____ No. _____ Inside Outside Bottom Make _____ Cap. _____ No. _____ Inside Outside

Time Set Packer 4:13 P _____ M
Tool Open I.F.P. From 4:15 M to 4:35 M Hr. 20 Min. From (B) _____ P.S.I. To (C) 25 P.S.I.
Tool Closed I.C.I.P. From 4:35 M. to 5:05 M. Hr. 30 Min. (D) _____ P.S.I. 111 P.S.I.
Tool Open F.F.P. From 5:05 M. to 6:05 M. Hr. 60 Min. From (E) 31 P.S.I. To (F) 31 P.S.I.
Tool Closed F.C.I.P. From 6:05P M. to 6:35 M. Hr. 30 Min. (G) _____ P.S.I. 92 P.S.I.
Initial Hydrostatic Pressure (A) 2147 P.S.I. Final Hydrostatic Pressure (H) 2139 P.S.I.

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

BLOW Good blow. Bottom Choke Size 3/4 In.
Did Well Flow Yes No Recovery Total Ft. 1560' gas in pipe; 55' gassy mud

Reversed Out Yes No Mud Type starch Viscosity 39 Weight 9.8 Maximum Temp. 116 °F

EXTRA EQUIPMENT: Dual Packers dual Safety Joint no Jars: Size no Make _____ Ser. No. _____
Type Circ. Sub. plug Did Tool Plug? no Where? _____ Did Packer Hold? yes
Length Drill Pipe 2834 ft. I.D. Drill Pipe 3.8 in Length Weight Pipe 1206 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars _____ ft.
I. D. Drill Collars _____ in. Length D.S.T. Tool 43 ft.

Remarks _____

SURFACE PRESSURE**TIME**

7½ oz.	5 min-20 mins. Int. Open
7½ oz.	5 mins. - Second Open
8 oz.	10 mins.
9 oz.	15 mins.
10 oz.	20 mins.
11 oz.	25 mins.
11½ oz.	30 mins.
12 oz.	35 mins.
12½ oz.	40 mins.
13 oz.	45 mins.
13½ oz.	50 mins.
14 oz.	55 mins.
14 oz.	60mins.

WESTERN TESTING CO., INC.
Pressure Data

Date March 1, 1966

Test Ticket No. 6841

Recorder No. 1560 Capacity 3150 Location 4068 Ft.

Clock No. 6899 Elevation 1961 Ground Level Well Temperature 116 °F

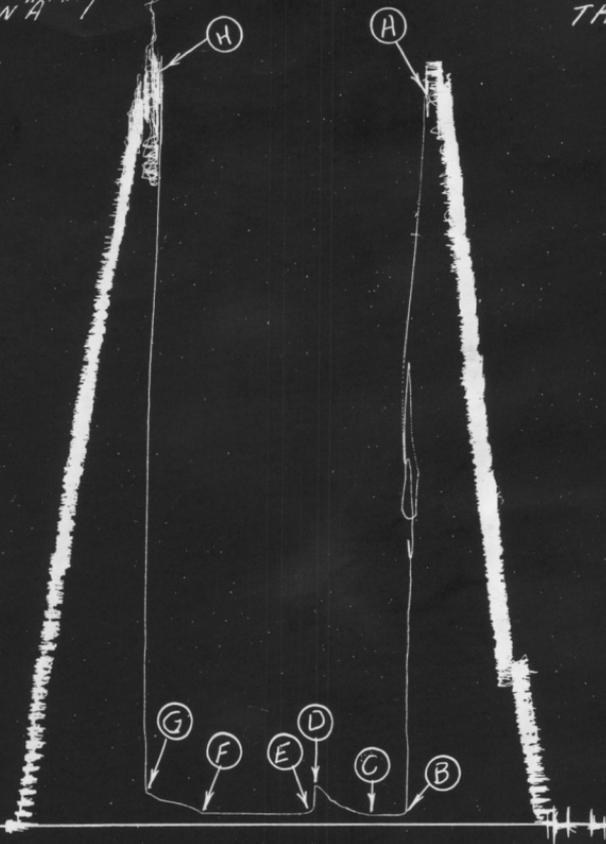
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2147</u> P.S.I.	Opened Tool	<u>4:13</u> Hr	
B First Initial Flow Pressure	<u>25</u> P.S.I.	First Flow Pressure	<u>20</u> Mins.	<u>20</u> Mins.
C First Final Flow Pressure	<u>25</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>111</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>31</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>31</u> P.S.I.			
G Final Closed-in Pressure	<u>92</u> P.S.I.			
H Final Hydrostatic Mud	<u>2139</u> P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Press.	Initial Shut-In	Second Flow Pressure	Final Shut-In			
	Breakdown: <u>4</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>10</u> nc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.			
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>25</u>	<u>0</u>	<u>25</u>	<u>0</u>	<u>31</u>	<u>0</u>	<u>31</u>
P 2	<u>25</u>	<u>3</u>	<u>29</u>	<u>5</u>	<u>31</u>	<u>3</u>	<u>42</u>
P 3	<u>25</u>	<u>6</u>	<u>32</u>	<u>10</u>	<u>31</u>	<u>6</u>	<u>51</u>
P 4	<u>25</u>	<u>9</u>	<u>37</u>	<u>15</u>	<u>31</u>	<u>9</u>	<u>56</u>
P 5	<u>25</u>	<u>12</u>	<u>43</u>	<u>20</u>	<u>31</u>	<u>12</u>	<u>62</u>
P 6		<u>15</u>	<u>50</u>	<u>25</u>	<u>31</u>	<u>15</u>	<u>65</u>
P 7		<u>18</u>	<u>58</u>	<u>30</u>	<u>31</u>	<u>18</u>	<u>67</u>
P 8		<u>21</u>	<u>69</u>	<u>35</u>	<u>31</u>	<u>21</u>	<u>70</u>
P 9		<u>24</u>	<u>84</u>	<u>40</u>	<u>31</u>	<u>24</u>	<u>75</u>
P10		<u>27</u>	<u>103</u>	<u>45</u>	<u>31</u>	<u>27</u>	<u>84</u>
P11		<u>30</u>	<u>111</u>	<u>50</u>	<u>31</u>	<u>30</u>	<u>92</u>
P12				<u>55</u>	<u>31</u>		
P13				<u>60</u>	<u>31</u>		
P14							
P15							
P16							
P17							
P18							
P19							
P20							

KERN DRUG. CO.
KACHELMAN "A" # 1

TEST # 2
TKT # 6841





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

Company Kern Drilling Company Lease & Well No. Kachelman #a-1
Elevation 1961 Ground Level Formation Viola Ticket Number 6842
Date March 2, 1966 Sec. 13 Twp. 25s Range 14w County Stafford State Kansas
Test Approved by J. Copeland Landes Western Representative W. M. Nething

Formation Test No. 3 O.K. Misrun Interval Tested From 4185' to 4218' Total Depth 4218'
Size Main Hole 7 7/8 Bit Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Packer Depth 4185' Ft. Size 6 3/4 Packer Depth 4180 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 XH & 4 1/2 FH Anchor Length 33 Ft. Size 5 1/2 OD
RECORDERS Depth 4193 Ft. Clock No. 6800 Depth 4195 Ft. Clock No. 6899
Top Make Amerada Cap. 3150 No. 1563 Inside Outside Bottom Make Amerada Cap. 3150 No. 1560 Inside Outside
Below Straddle: Depth _____ Clock No. _____ Inside _____ Outside _____
Top Make _____ Cap. _____ No. _____ Inside _____ Outside _____

Time Set Packer 11:00 P M
Tool Open I.F.P. From 11:02 M to 11:22 M Hr. 20 Min. From (B) 159 P.S.I. To (C) 753 P.S.I.
Tool Closed I.C.I.P. From 11:22P M. to 11:52 M. Hr. 30 Min. (D) 1450 P.S.I.
Tool Open F.F.P. From 11:52P M. to 12:52A M. Hr. 60 Min. From (E) 792 P.S.I. To (F) 1352 P.S.I.
Tool Closed F.C.I.P. From 12:52A to 1:22AM Hr. 30 Min. (G) 1439 P.S.I.
Initial Hydrostatic Pressure (A) 2242 P.S.I. Final Hydrostatic Pressure (H) 2213 P.S.I.

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

BLOW Good blow decreasing to fair blow. Bottom Choke 3/4 In.
Did Well Flow Yes No Recovery Total Ft. 3000' salt water
Mud _____

Reversed Out Yes No Mud Type starch Viscosity 40 Weight 10. Maximum Temp. 118 °F
EXTRA EQUIPMENT: Dual Packers dual Safety Joint no Jars: Size no Make _____ Ser. No. _____
Type Circ. Sub. plug Did Tool Plug? no Where? _____ Did Packer Hold? yes
Length Drill Pipe 2959 ft. I.D. Drill Pipe 3.8 in Length Weight Pipe 1206 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars _____ ft.
I. D. Drill Collars _____ in. Length D.S.T. Tool 53 ft.

Remarks

SURFACE PRESSURE

INT. OPEN

PRESSURE	TIME
14 oz.	5 minutes.
15 oz.	10 minutes.
1 lb.	15 minutes.
1 lb.	20 minutes.

FINAL OPEN.

11 3/4 oz.	5 minutes.
14 3/4 oz.	10 minutes.
14 3/4 oz.	20 minutes.
14 1/2 oz.	25 minutes.
14 oz.	30 minutes.
12 oz.	35 minutes.
11 oz.	40 minutes.
9 1/2 oz.	45 minutes.
8 1/2 oz.	50 minutes.
7 3/4 oz.	55 minutes.
7 oz.	60 minutes.

WESTERN TESTING CO., INC.
Pressure Data

Date March 2, 1966 Test Ticket No. 6842
 Recorder No. 1563 Capacity 3150 Location 4193 Ft.
 Clock No. 6800 Elevation 1961 Ground Level Well Temperature 118 °F

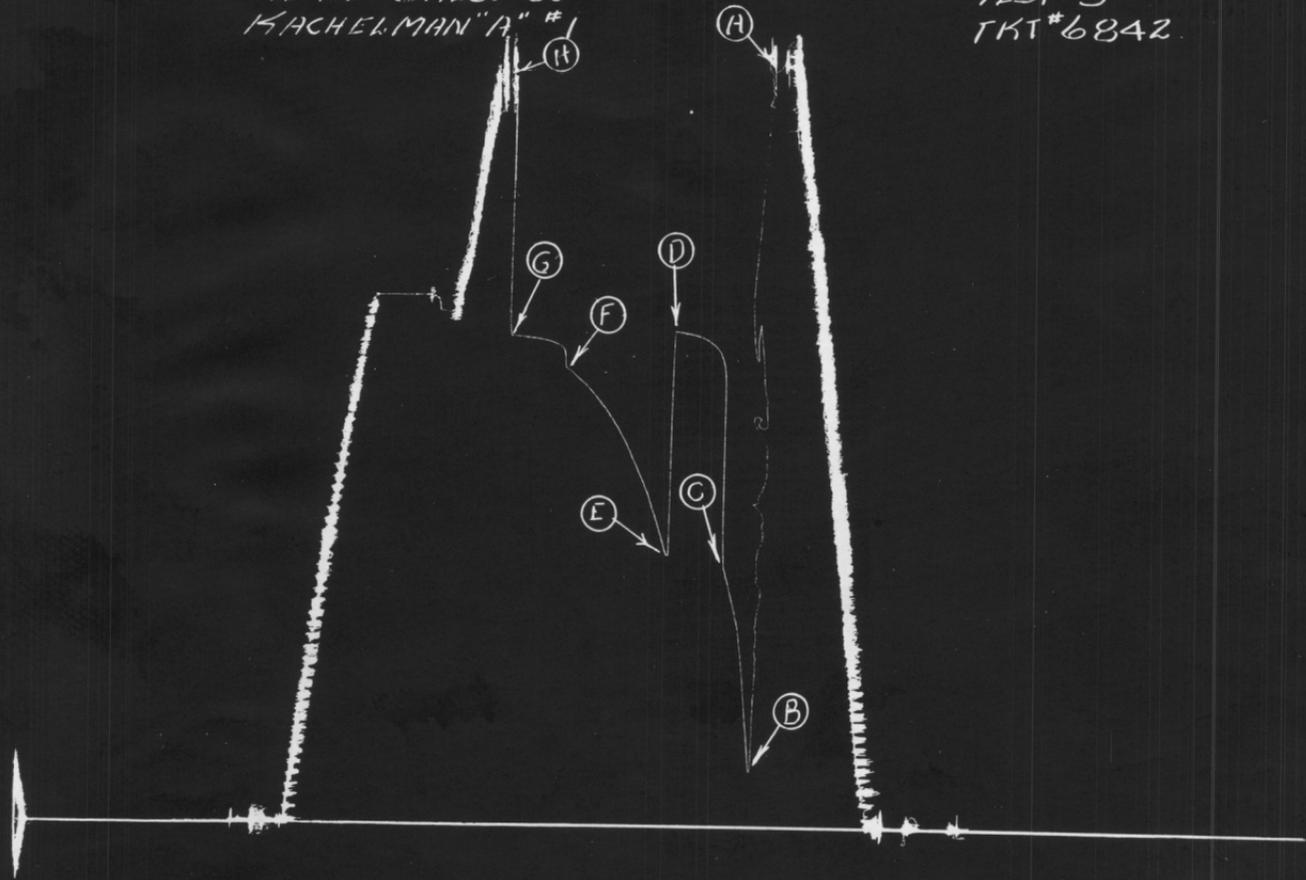
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2242</u> P.S.I.	Opened Tool	<u>11:00P</u> M	
B First Initial Flow Pressure	<u>159</u> P.S.I.	First Flow Pressure	<u>20</u> Mins.	<u>19</u> Mins.
C First Final Flow Pressure	<u>753</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>1450</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>57</u> Mins.
E Second Initial Flow Pressure	<u>792</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>1352</u> P.S.I.			
G Final Closed-in Pressure	<u>1439</u> P.S.I.			
H Final Hydrostatic Mud	<u>2213</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>3</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>11</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>4</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>2</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>159</u>	<u>0</u>	<u>753</u>	<u>0</u>	<u>792</u>	<u>0</u>	<u>1352</u>
P 2 <u>5</u>	<u>340</u>	<u>3</u>	<u>1387</u>	<u>5</u>	<u>863</u>	<u>3</u>	<u>1412</u>
P 3 <u>10</u>	<u>562</u>	<u>6</u>	<u>1409</u>	<u>10</u>	<u>949</u>	<u>6</u>	<u>1418</u>
P 4 <u>15</u>	<u>690</u>	<u>9</u>	<u>1423</u>	<u>15</u>	<u>1018</u>	<u>9</u>	<u>1426</u>
P 5 <u>19</u>	<u>753</u>	<u>12</u>	<u>1431</u>	<u>20</u>	<u>1082</u>	<u>12</u>	<u>1430</u>
P 6		<u>15</u>	<u>1437</u>	<u>25</u>	<u>1139</u>	<u>15</u>	<u>1433</u>
P 7		<u>18</u>	<u>1442</u>	<u>30</u>	<u>1186</u>	<u>18</u>	<u>1435</u>
P 8		<u>21</u>	<u>1447</u>	<u>35</u>	<u>1232</u>	<u>21</u>	<u>1436</u>
P 9		<u>24</u>	<u>1449</u>	<u>40</u>	<u>1268</u>	<u>24</u>	<u>1437</u>
P10		<u>27</u>	<u>1450</u>	<u>45</u>	<u>1298</u>	<u>27</u>	<u>1438</u>
P11				<u>50</u>	<u>1322</u>	<u>30</u>	<u>1439</u>
P12				<u>55</u>	<u>1346</u>		
P13				<u>57</u>	<u>1352</u>		
P14							
P15							
P16							
P17							
P18							
P19							
P20							

KERN DRUG CO.
KACHELMAN "A" #1

TEST # 3
TKT # 6842



SURFACE PRESSURE

NO PRESSURE ON INITIAL OPEN

PRESSURE	TIME
1½ oz.	5 minutes
1 3/4 oz.	10 minutes
2 oz.	15 minutes
2 oz.	20 minutes
2 oz. rest of test.	

WESTERN TESTING CO., INC.
Pressure Data

Date March 4, 1966 Test Ticket No. 6843
 Recorder No. 1563 Capacity 3150 Location 4271 Ft.
 Clock No. 6800 Elevation 1961 Ground Level Well Temperature 125 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2255</u> P.S.I.	Opened Tool	<u>9:31</u> P M	
B First Initial Flow Pressure	<u>10</u> P.S.I.	First Flow Pressure	<u>20</u> Mins.	<u>20</u> Mins.
C First Final Flow Pressure	<u>17</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>1395</u> P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>88</u> Mins.
E Second Initial Flow Pressure	<u>32</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>69</u> P.S.I.			
G Final Closed-in Pressure	<u>1358</u> P.S.I.			
H Final Hydrostatic Mud	<u>2237</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>4</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>17</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>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>3</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>0</u>	<u>17</u>	<u>0</u>	<u>32</u>	<u>0</u>	<u>69</u>
P 2	<u>5</u>	<u>3</u>	<u>103</u>	<u>5</u>	<u>32</u>	<u>3</u>	<u>236</u>
P 3	<u>10</u>	<u>6</u>	<u>368</u>	<u>10</u>	<u>33</u>	<u>6</u>	<u>1137</u>
P 4	<u>15</u>	<u>9</u>	<u>1319</u>	<u>15</u>	<u>34</u>	<u>9</u>	<u>1292</u>
P 5	<u>20</u>	<u>12</u>	<u>1353</u>	<u>20</u>	<u>35</u>	<u>12</u>	<u>1316</u>
P 6		<u>15</u>	<u>1369</u>	<u>25</u>	<u>38</u>	<u>15</u>	<u>1328</u>
P 7		<u>18</u>	<u>1380</u>	<u>30</u>	<u>41</u>	<u>18</u>	<u>1339</u>
P 8		<u>21</u>	<u>1387</u>	<u>35</u>	<u>44</u>	<u>21</u>	<u>1346</u>
P 9		<u>24</u>	<u>1391</u>	<u>40</u>	<u>48</u>	<u>24</u>	<u>1350</u>
P10		<u>27</u>	<u>1395</u>	<u>45</u>	<u>50</u>	<u>27</u>	<u>1357</u>
P11				<u>50</u>	<u>51</u>	<u>30</u>	<u>1358</u>
P12				<u>55</u>	<u>54</u>		
P13				<u>60</u>	<u>57</u>		
P14				<u>65</u>	<u>59</u>		
P15				<u>70</u>	<u>62</u>		
P16				<u>75</u>	<u>63</u>		
P17				<u>80</u>	<u>65</u>		
P18				<u>85</u>	<u>68</u>		
P19				<u>88</u>	<u>69</u>		
P20							

KERIN DRUG. CO.
KACHELMAN "A" #1

TEST # 4
TKT # 6843

