



Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company **Zorger Oil Company** Lease & Well No. **Frick #1**
Elevation **2209 Kelly Bushing** Formation **Cherokee** Effective Pay **-** Ft. Ticket No. **23915**
Date **12-6-75** Sec. **19** Twp. **19S** Range **20W** County **Rush** State **Kansas**
Test Approved by **Gerald W. Zorger** Western Representative **Guy Max Knipe**
Formation Test No. **1** O.K. ☒ Misrun ☐ Interval Tested From **4196'** to **4220'** Total Depth **4220'**
Size Main Hole **77/8** Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No
Top Packer Depth **4191** Ft. Size **6 3/4** Bottom Packer Depth **4196** Ft. Size **6 3/4**
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size **5/8 OD** Tool Joint Size **4 1/2 FH** Anchor Length **24** Ft. Size **5/8 OD** Surface Choke Size **3/4** In. Bottom Choke Size **3/4** In.
RECORDERS Depth **4218** Ft. Clock No. **6799** Depth **4215** Ft. Clock No. **8475**
Top Make **Kuster** Cap. **6000** No. **1560** Inside ☒ Outside ☐ Bottom Make **Kuster** Cap. **3150** No. **1564** Inside ☐ Outside ☒
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside ☐ Outside ☐ Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside ☐ Outside ☐
Time Set Packer **3:07** **P** M
Tool Open I.F.P. From **3:10P** M. to **3:40 P** M. ☐ Hr. **30** Min. From (B) **75** P.S.I. To (C) **70** P.S.I.
Tool Closed I.C.I.P. From **3:40P** M. to **4:10P** M. ☐ Hr. **30** Min. (D) **74** P.S.I.
Tool Open F.F.P. From **NOT TAKEN** M. to ☐ M. ☐ Hr. ☐ Min. From (E) ☐ P.S.I. To (F) ☐ P.S.I.
Tool Closed F.C.I.P. From **NOT TAKEN** M. to ☐ M. ☐ Hr. ☐ Min. (G) ☐ P.S.I.
Initial Hydrostatic Pressure (A) **2409** P.S.I. Final Hydrostatic Pressure (H) **2386** P.S.I. Maximum Temp. **112**

INFORMATION

BLOW **Very weak blow-died in 10 minutes. Flushed tool- few bubbles then died.**
Did Well Flow ☐ Yes ☒ No Recovery Total Ft. **34' drilling mud.**
Reversed Out ☐ Yes ☒ No Mud Type **starch** Viscosity **47** Weight **10.3** Water Loss **12.2** cc. Chlorides **83,000 P.P.M.**
EXTRA EQUIPMENT: Type Circ. Sub. **plug** Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐
Dual Packer **yes** Did Packers Hold? **yes** Did Tool Plug? **no** Where? ☐
DRILLING CONTRACTOR **Red Tiger Drlg.** Length Drill Pipe? **3328** Ft. I.D. Drill Pipe **3.20** In. Tool Joint Size **4 1/2 FH** In.
Length Weight Pipe **848** Ft. I.D. Weight Pipe **2.7** In. Tool Joint Size **4 1/2 FH** In. Length Drill Collars ☐ Ft. I.D. Drill Collars ☐ In.
Tool Joint Size ☐ In. Length D.S.T. Tool **44** Ft.
Remarks:

WESTERN TESTING CO., INC.

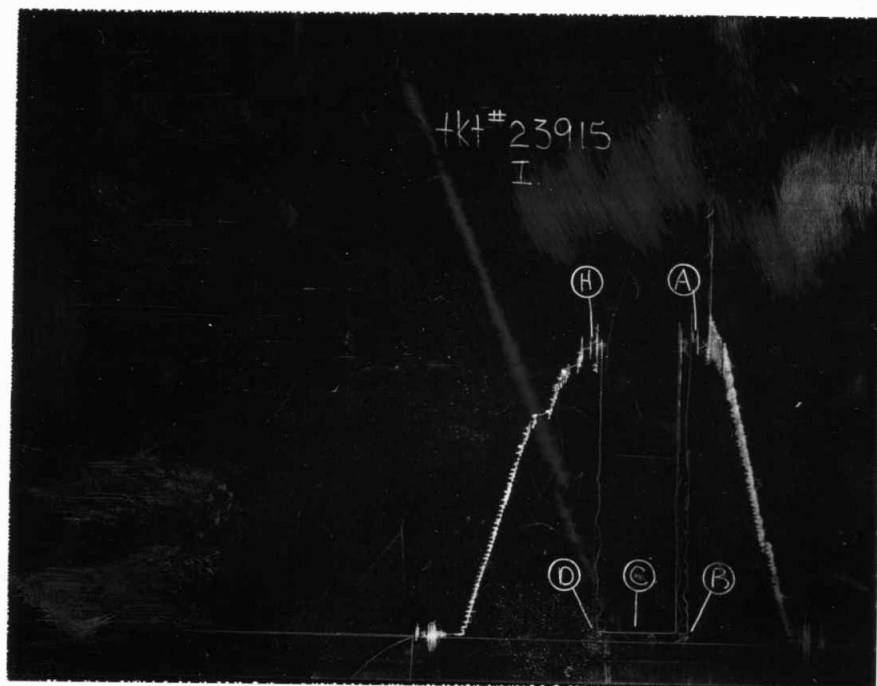
Pressure Data

Date 12-6-75 Test Ticket No. 23915
 Recorder No. 1560 Capacity 6000 Location 4218 Ft.
 Clock No. 6799 Elevation 2209 Kelly Bushing Well Temperature 112 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2409</u> P.S.I.	<u>3:07 P</u> M	
B First Initial Flow Pressure	<u>75</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>70</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>74</u> P.S.I.	<u>NOT TAKEN</u> Mins.	<u>-</u> Mins.
E Second Initial Flow Pressure	<u>NOT TAKEN</u> P.S.I.	<u>-</u> Mins.	<u>-</u> Mins.
F Second Final Flow Pressure	<u>NOT TAKEN</u> P.S.I.		
G Final Closed-in Pressure	<u>NOT TAKEN</u> P.S.I.		
H Final Hydrostatic Mud	<u>2386</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>75</u>	<u>0</u>	<u>70</u>	<u>NOT TAKEN</u>	<u>-</u>	<u>NOT TAKEN</u>	<u>-</u>
P 2 <u>5</u>	<u>70</u>	<u>3</u>	<u>70</u>				
P 3 <u>10</u> flushed tool		<u>6</u>	<u>70</u>				
P 4 <u>15</u>	<u>76</u>	<u>9</u>	<u>70</u>				
P 5 <u>20</u>	<u>70</u>	<u>12</u>	<u>70</u>				
P 6 <u>25</u>	<u>70</u>	<u>15</u>	<u>70</u>				
P 7 <u>30</u>	<u>70</u>	<u>18</u>	<u>70</u>				
P 8		<u>21</u>	<u>70</u>				
P 9		<u>24</u>	<u>72</u>				
P10		<u>27</u>	<u>73</u>				
P11		<u>30</u>	<u>74</u>				
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2397	2409
(B) First Initial Flow Pressure	73	75
(C) First Final Flow Pressure	87	70
(D) Initial Closed-in Pressure	-	74
(E) Second Initial Flow Pressure	-	-
(F) Second Final Flow Pressure	-	-
(G) Final Closed-in Pressure	-	-
(H) Final Hydrostatic Mud	2367	2386



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Company Zorger Oil Company Lease & Well No. Frick #1
Elevation 2209 Kelly Bushing Formation Cherokee Effective Pay - Ft. Ticket No. 23916
Date 12-7-75 Sec. 9 Twp. 19S Range 20W County Rush State Kansas
Test Approved by Gerald W. Zorger Western Representative T.J. Arnhold
Formation Test No. 2 O.K. ☒ Misrun ☐ Interval Tested From 4201' to 4225' Total Depth 4225'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No
Top Packer Depth 4196 Ft. Size 6 3/4 Bottom Packer Depth 4201 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 540D Tool Joint Size 4 1/2 FH Anchor Length 24 Ft. Size 5 1/2 PPRF Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 4217 Ft. Clock No. 6799 Depth 4220 Ft. Clock No. 8475
Top Make Kuster Cap. 6000 No. 1560 Inside Outside Bottom Make Kuster Cap. 3150 No. 1564 Inside Outside
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside Outside Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside Outside
Time Set Packer 3:38 A M
Tool Open I.F.P. From 3:40 A M. to 4:10A M. - Hr. 30 Min. From (B) 55 P.S.I. To (C) 555 P.S.I.
Tool Closed I.C.I.P. From 4:10A M. to 4:40A M. - Hr. 30 Min (D) 628 P.S.I.
Tool Open F.F.P. From 4:40A M. to 5:40 A M. - Hr. 60 Min. From (E) 85 P.S.I. To (F) 76 P.S.I.
Tool Closed F.C.I.P. From 5:40A M. to 6:40A M. - Hr. 60 Min. (G) 716 P.S.I.
Initial Hydrostatic Pressure (A) 2395 P.S.I. Final Hydrostatic Pressure (H) 2350 P.S.I. Maximum Temp. 121

INFORMATION

BLOW Fair blow throughout test

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. (70' total Fluid) 10' oil cut mud 60% mud 40% oil
60' slightly oil cut mud.

Reversed Out ☐ Yes ☒ No Mud Type starch Viscosity 47 Weight 10.3 Water Loss 12.2 cc. Chlorides 83,000 P.P.M.

EXTRA EQUIPMENT: Type Circ. Sub. plug Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐

Dual Packer yes Did Packers Hold? yes Did Tool Plug? no Where? ☐ ☐ ☐

DRILLING CONTRACTOR Red Tiger Drlg. Co. Length Drill Pipe? 3332 Ft. I.D. Drill Pipe 3 1/2 In. Tool Joint Size 4 1/2 FH In.

Length Weight Pipe 849 Ft. I.D. Weight Pipe 2.7 In. Tool Joint Size 4 1/2 FH In. Length Drill Collars ☐ Ft. I.D. Drill Collars ☐ In.

Tool Joint Size ☐ In. Length D.S.T. Tool 44 Ft.

Remarks:

WESTERN TESTING CO., INC.

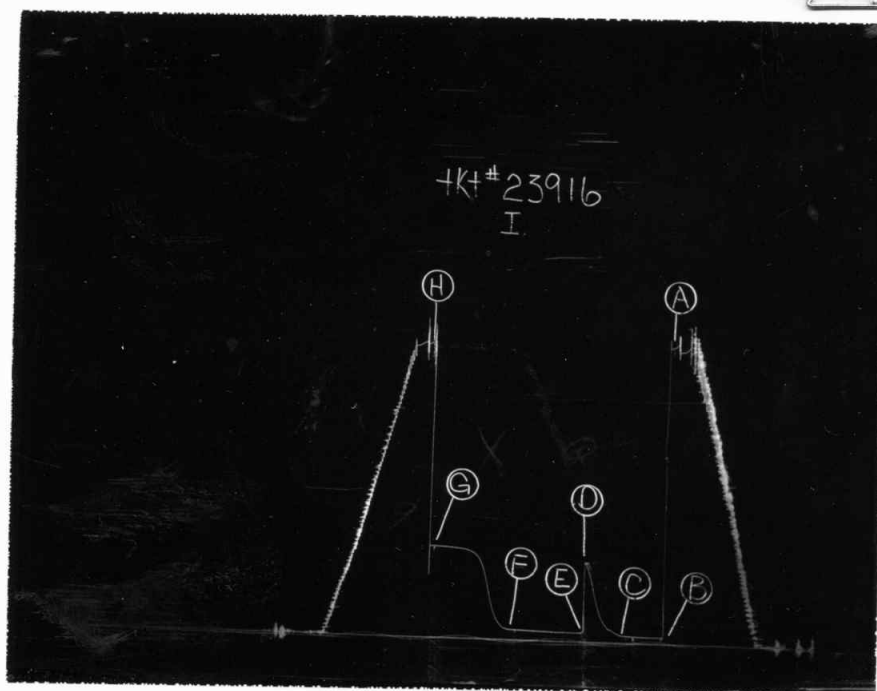
Pressure Data

Date 12-7-75 Test Ticket No. 23916
 Recorder No. 1560 Capacity 6000 Location 4217 Ft.
 Clock No. 6799 Elevation 2209 Kelly Bushing Well Temperature 121 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2395</u>	P.S.I.	<u>3:38</u> A M	
B First Initial Flow Pressure	<u>55</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>55</u>	P.S.I.	<u>30</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>628</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>85</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>76</u>	P.S.I.		
G Final Closed-in Pressure	<u>716</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2350</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>11</u> Inc.		Breakdown: <u>12</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>0</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>55</u>	<u>0</u>	<u>55</u>	<u>0</u>	<u>85</u>	<u>0</u>	<u>76</u>
P 2 <u>5</u>	<u>50</u>	<u>3</u>	<u>58</u>	<u>5</u>	<u>67</u>	<u>3</u>	<u>96</u>
P 3 <u>10</u>	<u>50</u>	<u>6</u>	<u>70</u>	<u>10</u>	<u>67</u>	<u>6</u>	<u>128</u>
P 4 <u>15</u>	<u>50</u>	<u>9</u>	<u>88</u>	<u>15</u>	<u>67</u>	<u>9</u>	<u>181</u>
P 5 <u>20</u>	<u>50</u>	<u>12</u>	<u>102</u>	<u>20</u>	<u>67</u>	<u>12</u>	<u>266</u>
P 6 <u>25</u>	<u>53</u>	<u>15</u>	<u>131</u>	<u>25</u>	<u>67</u>	<u>15</u>	<u>383</u>
P 7 <u>30</u>	<u>53</u>	<u>18</u>	<u>178</u>	<u>30</u>	<u>70</u>	<u>18</u>	<u>511</u>
P 8		<u>21</u>	<u>263</u>	<u>35</u>	<u>71</u>	<u>21</u>	<u>602</u>
P 9		<u>24</u>	<u>371</u>	<u>40</u>	<u>72</u>	<u>24</u>	<u>648</u>
P10		<u>27</u>	<u>491</u>	<u>45</u>	<u>73</u>	<u>27</u>	<u>672</u>
P11		<u>30</u>	<u>581</u>	<u>50</u>	<u>74</u>	<u>30</u>	<u>686</u>
P12		<u>33</u>	<u>628</u>	<u>55</u>	<u>75</u>	<u>33</u>	<u>698</u>
P13				<u>60</u>	<u>76</u>	<u>36</u>	<u>701</u>
P14						<u>39</u>	<u>708</u>
P15						<u>42</u>	<u>707</u>
P16						<u>45</u>	<u>710</u>
P17						<u>48</u>	<u>712</u>
P18						<u>51</u>	<u>713</u>
P19						<u>54</u>	<u>714</u>
P20						<u>57</u>	<u>715</u>
						<u>60</u>	<u>716</u>



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2352	2395
(B) First Initial Flow Pressure	49	55
(C) First Final Flow Pressure	58	55
(D) Initial Closed-in Pressure	627	628
(E) Second Initial Flow Pressure	81	85
(F) Second Final Flow Pressure	93	76
(G) Final Closed-in Pressure	715	716
(H) Final Hydrostatic Mud	2337	2350



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Company **Zorger Oil Company** Lease & Well No. **Frick #1**
Elevation **2209 Kelly Bushing** Formation **Cherokee** Effective Pay **-** Ft. Ticket No. **23917**
Date **12-7-75** Sec. **9** Twp. **19S** Range **20W** County **Rush** State **Kansas**
Test Approved by **Gerald W. Zorger** Western Representative **T.J. Arnhold**
Formation Test No. **3** O.K. ☒ Misrun ☐ Interval Tested From **4201'** to **4230'** Total Depth **4230'**
Size Main Hole **77/8** Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No
Top Packer Depth **4196** Ft. Size **6 3/4** Bottom Packer Depth **4201** Ft. Size **6 3/4**
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size **5 1/2 OD** Tool Joint Size **4 1/2 FH** Anchor Length **29** Ft. Size **5 1/2 PERF** Surface Choke Size **3/4** In. Bottom Choke Size **3/4** In.
RECORDERS Depth **4217** Ft. Clock No. **6799** Depth **4220** Ft. Clock No. **8475**
Top Make **Kuster** Cap. **6000** No. **1560** Inside Outside Bottom Make **Kuster** Cap. **3150** No. **1564** Inside Outside
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside Outside Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside Outside
Time Set Packer **4:02 P M**
Tool Open I.F.P. From **4:05 P** M. to **4:35 P** M. - Hr. **30** Min. From (B) **120** P.S.I. To (C) **269** P.S.I.
Tool Closed I.C.I.P. From **4:35 P** M. to **5:20 P** M. - Hr. **45** Min (D) **688** P.S.I.
Tool Open F.F.P. From **5:20 P** M. to **6:05 P** M. - Hr. **45** Min. From (E) **307** P.S.I. To (F) **405** P.S.I.
Tool Closed F.C.I.P. From **6:05 P** M. to **6:50 P** M. - Hr. **45** Min. (G) **673** P.S.I.
Initial Hydrostatic Pressure (A) **2307** P.S.I. Final Hydrostatic Pressure (H) **2301** P.S.I. Maximum Temp. **124**

INFORMATION

BLOW **Strong blow throughout test.**

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. **90' slightly oil cut mud 240' heavy mud cut oil 2% water**
120' heavy mud cut oil 4% water, 300' heavy mud cut oil 8% water 120' slightly oil 10% water
120' slightly muddy oil 15% water

Reversed Out ☐ Yes ☒ No Mud Type **starch** Viscosity **39** Weight **10.0** Water Loss **13.4** cc. Chlorides **86,000 P.P.M.**

EXTRA EQUIPMENT: Type Circ. Sub. **plug** Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐

Dual Packer **yes** Did Packers Hold? **yes** Did Tool Plug? **no** Where? ☐

DRILLING CONTRACTOR **Red Tiger Drilg. Co.** Length Drill Pipe **3332** Ft. I.D. Drill Pipe **3 1/4** In. Tool Joint Size **4 1/2 XH** In.

Length Weight Pipe **849** Ft. I.D. Weight Pipe **2.7** In. Tool Joint Size **4 1/2 XH** In. Length Drill Collars ☐ Ft. I.D. Drill Collars ☐ In.

Tool Joint Size ☐ In. Length D.S.T. Tool **49** Ft.

Remarks:

WESTERN TESTING CO., INC.

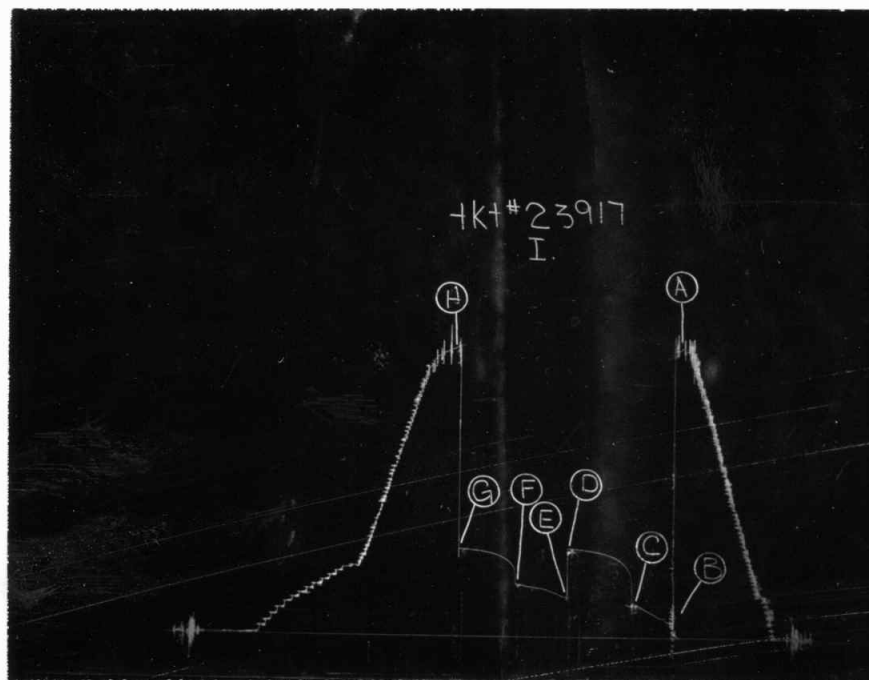
Pressure Data

Date 12-7-75 Test Ticket No. 23917
 Recorder No. 1560 Capacity 6000 Location 4217 Ft.
 Clock No. 6799 Elevation 2209 Kelly Bushing Well Temperature 124 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2323</u>	P.S.I.	<u>4:02 P</u>	<u>M</u>
B First Initial Flow Pressure	<u>120</u>	P.S.I.	<u>30</u>	<u>30</u> Mins.
C First Final Flow Pressure	<u>269</u>	P.S.I.	<u>45</u>	<u>48</u> Mins.
D Initial Closed-in Pressure	<u>688</u>	P.S.I.	<u>45</u>	<u>40</u> Mins.
E Second Initial Flow Pressure	<u>307</u>	P.S.I.	<u>45</u>	<u>45</u> Mins.
F Second Final Flow Pressure	<u>405</u>	P.S.I.		
G Final Closed-in Pressure	<u>678</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2301</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>16</u> Inc.		Breakdown: <u>8</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>0</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>120</u>	<u>0</u>	<u>269</u>	<u>0</u>	<u>307</u>	<u>0</u>	<u>405</u>
P 2 <u>5</u>	<u>126</u>	<u>3</u>	<u>529</u>	<u>5</u>	<u>318</u>	<u>3</u>	<u>564</u>
P 3 <u>10</u>	<u>152</u>	<u>6</u>	<u>566</u>	<u>10</u>	<u>339</u>	<u>6</u>	<u>593</u>
P 4 <u>15</u>	<u>178</u>	<u>9</u>	<u>596</u>	<u>15</u>	<u>356</u>	<u>9</u>	<u>613</u>
P 5 <u>20</u>	<u>207</u>	<u>12</u>	<u>613</u>	<u>20</u>	<u>371</u>	<u>12</u>	<u>628</u>
P 6 <u>25</u>	<u>234</u>	<u>15</u>	<u>628</u>	<u>25</u>	<u>380</u>	<u>15</u>	<u>640</u>
P 7 <u>30</u>	<u>269</u>	<u>18</u>	<u>643</u>	<u>30</u>	<u>388</u>	<u>18</u>	<u>648</u>
P 8		<u>21</u>	<u>651</u>	<u>35</u>	<u>397</u>	<u>21</u>	<u>654</u>
P 9		<u>24</u>	<u>658</u>	<u>40</u>	<u>405</u>	<u>24</u>	<u>660</u>
P10		<u>27</u>	<u>663</u>			<u>27</u>	<u>666</u>
P11		<u>30</u>	<u>669</u>			<u>30</u>	<u>669</u>
P12		<u>33</u>	<u>674</u>			<u>33</u>	<u>672</u>
P13		<u>36</u>	<u>678</u>			<u>36</u>	<u>674</u>
P14		<u>39</u>	<u>684</u>			<u>39</u>	<u>675</u>
P15		<u>42</u>	<u>686</u>			<u>42</u>	<u>677</u>
P16		<u>45</u>	<u>687</u>			<u>45</u>	<u>678</u>
P17		<u>48</u>	<u>688</u>				
P18							
P19							
P20							



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2307	2323	PSI
(B) First Initial Flow Pressure	58	120	PSI
(C) First Final Flow Pressure	248	269	PSI
(D) Initial Closed-in Pressure	671	688	PSI
(E) Second Initial Flow Pressure	306	307	PSI
(F) Second Final Flow Pressure	394	405	PSI
(G) Final Closed-in Pressure	671	678	PSI
(H) Final Hydrostatic Mud	2293	2301	PSI