



P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

Company National Development Co. Lease & Well No. Harbaugh #1
Elevation 1652 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 1883
Date 9-20-78 Sec. 28 Twp. 33S Range 14W County Barber State Kansas
Test Approved by Wayne Merchant Western Representative William K. Hager
Formation Test No. 1 Interval Tested from 4594 ft. to 4630 ft. Total Depth 4630 ft.
Packer Depth 4589 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 4594 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 4599 ft. Recorder Number 1561 Cap. 3200
Bottom Recorder Depth (Outside) 4602 ft. Recorder Number 1564 Cap. 3150
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor Gabbert-Jones Drlg. (#12) Drill Collar Length 438 I. D. 2 1/4 in.
Mud Type Starch Viscosity 46 Weight Pipe Length - I. D. - in.
Weight 9.4 Water Loss 13.6 cc. Drill Pipe Length 4136 I. D. 3.8 in.
Chlorides 18,000 P.P.M. Test Tool Size 56' ~~XX~~ Tool Joint Size 5 1/2 OD in.
Jars: Make - Serial Number - Anchor Length 36 ft. Size 5 1/2 OD in.
Did Well Flow? No Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 7/8 in. Tool Joint Size -4 1/2 FH
Blow: Strong blow throughout test.

Recovered 100 ft. of drilling mud.

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 5:55 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 7:55 ~~P.M.~~ ^{A.M.} Maximum Temperature 130
Initial Hydrostatic Pressure (A) 2317 P.S.I.
Initial Flow Period Minutes 30 (B) 40 P.S.I. to (C) 33 P.S.I.
Initial Closed In Period Minutes 30 (D) 203 P.S.I.
Final Flow Period Minutes 30 (E) 49 P.S.I. to (F) 40 P.S.I.
Final Closed In Period Minutes 30 (G) 234 P.S.I.
Final Hydrostatic Pressure (H) 2259 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 9-20-78

Test Ticket No. 1883

Recorder No. 1561 Capacity 3200

Location 4599 Ft.

Clock No. - Elevation 1652 Kelly Bushing

Well Temperature 130 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2317	P.S.I.	5:55A.	M
B First Initial Flow Pressure	40	P.S.I.	30	Mins. 30
C First Final Flow Pressure	33	P.S.I.	30	Mins. 30
D Initial Closed-in Pressure	203	P.S.I.	30	Mins. 30
E Second Initial Flow Pressure	49	P.S.I.	30	Mins. 30
F Second Final Flow Pressure	40	P.S.I.		
G Final Closed-in Pressure	234	P.S.I.		
H Final Hydrostatic Mud	2259	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>11</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	Press.	Point	Press.	Point	Press.	Point	Press.
Mins.		Minutes		Minutes		Minutes	
P 1 <u>0</u>	<u>40</u>	<u>0</u>	<u>33</u>	<u>0</u>	<u>49</u>	<u>0</u>	<u>40</u>
P 2 <u>5</u>	<u>35</u>	<u>3</u>	<u>42</u>	<u>5</u>	<u>40</u>	<u>3</u>	<u>50</u>
P 3 <u>10</u>	<u>33</u>	<u>6</u>	<u>93</u>	<u>10</u>	<u>40</u>	<u>6</u>	<u>61</u>
P 4 <u>15</u>	<u>33</u>	<u>9</u>	<u>129</u>	<u>15</u>	<u>40</u>	<u>9</u>	<u>66</u>
P 5 <u>20</u>	<u>33</u>	<u>12</u>	<u>152</u>	<u>20</u>	<u>40</u>	<u>12</u>	<u>71</u>
P 6 <u>25</u>	<u>33</u>	<u>15</u>	<u>167</u>	<u>25</u>	<u>40</u>	<u>15</u>	<u>74</u>
P 7 <u>30</u>	<u>33</u>	<u>18</u>	<u>177</u>	<u>30</u>	<u>40</u>	<u>18</u>	<u>89</u>
P 8		<u>21</u>	<u>186</u>			<u>21</u>	<u>116</u>
P 9		<u>24</u>	<u>194</u>			<u>24</u>	<u>168</u>
P10		<u>27</u>	<u>198</u>			<u>27</u>	<u>209</u>
P11		<u>30</u>	<u>203</u>			<u>30</u>	<u>226</u>
P12						<u>33</u>	<u>234</u>
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TK+1883

I.

H

A

G

F

D

E

C

B

1561