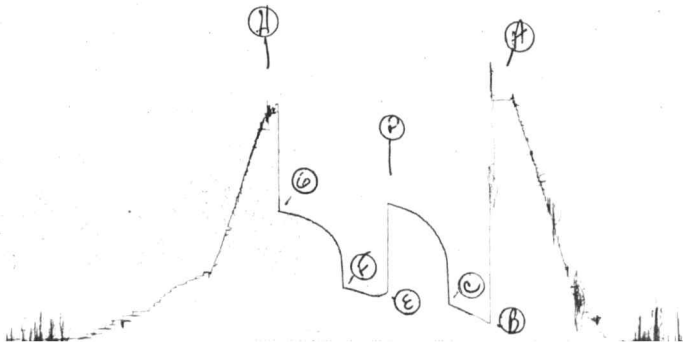


5673

JK # 11897

I



Company Hummon Corporation Lease & Well No. Muhlenbruch #2
 Elevation 1232 Kelly Bushing Formation Kansas City Effective Pay - Ft. Ticket No. 11897
 Date 1/9/82 Sec. 5 Twp. 33S Range 3W County Sumner State Kansas
 Test Approved by David J. Goldak Western Representative Louis Spencer

Formation Test No. 1 Interval Tested from 3307 ft. to 3330 ft. Total Depth 3330 ft.
 Packer Depth 3302 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3307 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3320 ft. Recorder Number 5673 Cap. 5400
 Bottom Recorder Depth (Outside) 3323 ft. Recorder Number 1565 Cap. 4900
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Big H Drlg. Rig #1 Drill Collar Length 375 I. D. 2.25 in.
 Mud Type premix Viscosity 38 Weight Pipe Length - I. D. - in.
 Weight 9.4 Water Loss 45.6 cc. Drill Pipe Length 2912 I. D. 3.8 in.
 Chlorides 14,500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.
 Jars: Make - Serial Number - Anchor Length 23 ft. Size 5 1/2 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 in.

Blow: Initial flow period strong; off bottom of bucket in one minute. Final flow period good blow; gas to surface after shut-in - no measurement.

Recovered 15 ft. of heavy oil and gas cut mud
 Recovered 330 ft. of oil API Gravity 36
 Recovered 510 ft. of water Chlorides 80,000 ppm
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set	Packer(s)	Time Started	Off Bottom	Maximum Temperature
11:00			1:30	112°
Initial Hydrostatic Pressure			1678	P.S.I.
Initial Flow Period		Minutes 30	127	P.S.I. to (C) 253 P.S.I.
Initial Closed In Period		Minutes 45	960	P.S.I.
Final Flow Period		Minutes 30	319	P.S.I. to (F) 373 P.S.I.
Final Closed In Period		Minutes 51	901	P.S.I.
Final Hydrostatic Pressure			1639	P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 1/9/82 Test Ticket No. 11897
 Recorder No. 5673 Capacity 5400 Location 3320 Ft.
 Clock No. -- Elevation 1232 Kelly Bushing Well Temperature 112 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1678	P.S.I.	11:00A	M
B First Initial Flow Pressure	127	P.S.I.	30	30 Mins.
C First Final Flow Pressure	253	P.S.I.	45	45 Mins.
D Initial Closed-in Pressure	960	P.S.I.	30	30 Mins.
E Second Initial Flow Pressure	319	P.S.I.	45	51 Mins.
F Second Final Flow Pressure	373	P.S.I.		
G Final Closed-in Pressure	901	P.S.I.		
H Final Hydrostatic Mud	1639	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

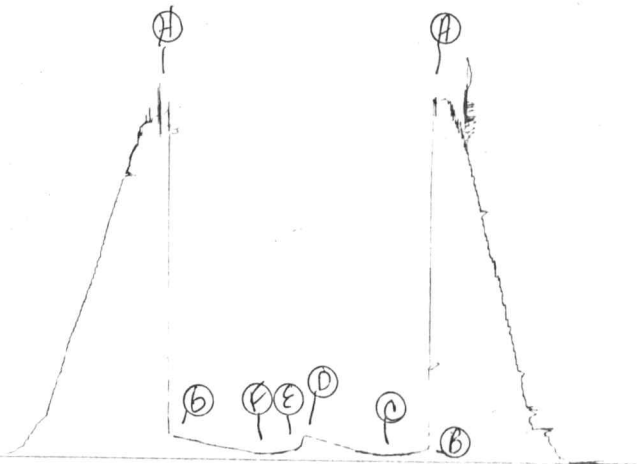
Initial Shut-In
 Breakdown: 15 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 17 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>127</u>	<u>0</u>	<u>253</u>	<u>0</u>	<u>319</u>	<u>0</u>	<u>373</u>
P 2 <u>5</u>	<u>149</u>	<u>3</u>	<u>633</u>	<u>5</u>	<u>319</u>	<u>3</u>	<u>514</u>
P 3 <u>10</u>	<u>175</u>	<u>6</u>	<u>691</u>	<u>10</u>	<u>319</u>	<u>6</u>	<u>669</u>
P 4 <u>15</u>	<u>193</u>	<u>9</u>	<u>740</u>	<u>15</u>	<u>327</u>	<u>9</u>	<u>710</u>
P 5 <u>20</u>	<u>213</u>	<u>12</u>	<u>783</u>	<u>20</u>	<u>342</u>	<u>12</u>	<u>745</u>
P 6 <u>25</u>	<u>236</u>	<u>15</u>	<u>811</u>	<u>25</u>	<u>360</u>	<u>15</u>	<u>769</u>
P 7 <u>30</u>	<u>253</u>	<u>18</u>	<u>839</u>	<u>30</u>	<u>373</u>	<u>18</u>	<u>792</u>
P 8 _____	_____	<u>21</u>	<u>866</u>	_____	_____	<u>21</u>	<u>811</u>
P 9 _____	_____	<u>24</u>	<u>888</u>	_____	_____	<u>24</u>	<u>828</u>
P10 _____	_____	<u>27</u>	<u>902</u>	_____	_____	<u>27</u>	<u>844</u>
P11 _____	_____	<u>30</u>	<u>915</u>	_____	_____	<u>30</u>	<u>855</u>
P12 _____	_____	<u>33</u>	<u>925</u>	_____	_____	<u>33</u>	<u>866</u>
P13 _____	_____	<u>36</u>	<u>936</u>	_____	_____	<u>36</u>	<u>876</u>
P14 _____	_____	<u>39</u>	<u>944</u>	_____	_____	<u>39</u>	<u>883</u>
P15 _____	_____	<u>42</u>	<u>951</u>	_____	_____	<u>42</u>	<u>888</u>
P16 _____	_____	<u>45</u>	<u>960</u>	_____	_____	<u>45</u>	<u>893</u>
P17 _____	_____	_____	_____	_____	_____	<u>48</u>	<u>899</u>
P18 _____	_____	_____	_____	_____	_____	<u>51</u>	<u>901</u>
P19 _____	_____	_____	_____	_____	_____	_____	_____
P20 _____	_____	_____	_____	_____	_____	_____	_____

JK # 13111
I



Company Hummon Corporation Lease & Well No. Muhlenbruch #2
 Elevation 1232 Kelly Bushing Formation Mississippi Effective Pay - Ft. Ticket No. 13111
 Date 1/ 11/82 Sec. 5 Twp. 33S Range 3W County Summer State Kansas
 Test Approved by David J. Goldak Western Representative Robert Davis

Formation Test No. 2 Interval Tested from 3973 ft. to 3981 ft. Total Depth 3981 ft.
 Packer Depth 3973 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3968 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3977 ft. Recorder Number 11018 Cap. 4425
 Bottom Recorder Depth (Outside) 3980 ft. Recorder Number 13403 Cap. 4050
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Big H Drlg. Rig #1 Drill Collar Length 375 I. D. - in.
 Mud Type chemical Viscosity 45 Weight Pipe Length - I. D. - in.
 Weight 9.3 Water Loss 16.4 cc. Drill Pipe Length 3606 I. D. - in.
 Chlorides 13,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.
 Jars: Make None Serial Number - Anchor Length 8 ft. Size 5 1/2 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 XH in.

Blow: Weak throughout test.

Recovered 60 ft. of drilling mud
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 10:55 ~~A.M.~~ P.M. Time Started Off Bottom 1:55 ~~A.M.~~ P.M. Maximum Temperature 114°
 Initial Hydrostatic Pressure (A) 2031 P.S.I.
 Initial Flow Period Minutes 30 (B) 41 P.S.I. to (C) 41 P.S.I.
 Initial Closed In Period Minutes 60 (D) 144 P.S.I.
 Final Flow Period Minutes 30 (E) 41 P.S.I. to (F) 41 P.S.I.
 Final Closed In Period Minutes 69 (G) 144 P.S.I.
 Final Hydrostatic Pressure (H) 1936 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 1/11/82 Test Ticket No. 13111
 Recorder No. 11018 Capacity 4425 Location 3977 Ft.
 Clock No. -- Elevation 1232 Kelly Bushing Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2031</u> P.S.I.	Open Tool	<u>10:55P</u>	<u>M</u>
B First Initial Flow Pressure	<u>41</u> P.S.I.	First Flow Pressure	<u>30</u> Mins	<u>30</u> Mins.
C First Final Flow Pressure	<u>41</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>144</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>41</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins	<u>69</u> Mins.
F Second Final Flow Pressure	<u>41</u> P.S.I.			
G Final Closed-in Pressure	<u>144</u> P.S.I.			
H Final Hydrostatic Mud	<u>1936</u> P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of <u>6</u> mins. and a final inc. of <u>0</u> Min.		of <u>3</u> mins. and a final inc. of <u>0</u> Min.		of <u>5</u> mins. and a final inc. of <u>0</u> Min.		of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1	<u>41</u>	<u>0</u>	<u>41</u>	<u>0</u>	<u>41</u>	<u>0</u>	<u>41</u>	
P 2	<u>41</u>	<u>3</u>	<u>41</u>	<u>3</u>	<u>41</u>	<u>3</u>	<u>42</u>	
P 3	<u>41</u>	<u>6</u>	<u>41</u>	<u>6</u>	<u>41</u>	<u>6</u>	<u>43</u>	
P 4	<u>41</u>	<u>9</u>	<u>45</u>	<u>9</u>	<u>41</u>	<u>9</u>	<u>47</u>	
P 5	<u>41</u>	<u>12</u>	<u>47</u>	<u>12</u>	<u>41</u>	<u>12</u>	<u>52</u>	
P 6	<u>41</u>	<u>15</u>	<u>53</u>	<u>15</u>	<u>41</u>	<u>15</u>	<u>56</u>	
P 7	<u>41</u>	<u>18</u>	<u>58</u>	<u>18</u>	<u>41</u>	<u>18</u>	<u>60</u>	
P 8		<u>21</u>	<u>61</u>			<u>21</u>	<u>64</u>	
P 9		<u>24</u>	<u>66</u>			<u>24</u>	<u>69</u>	
P10		<u>27</u>	<u>73</u>			<u>27</u>	<u>72</u>	
P11		<u>30</u>	<u>80</u>			<u>30</u>	<u>75</u>	
P12		<u>33</u>	<u>86</u>			<u>33</u>	<u>78</u>	
P13		<u>36</u>	<u>93</u>			<u>36</u>	<u>82</u>	
P14		<u>39</u>	<u>98</u>			<u>39</u>	<u>87</u>	
P15		<u>42</u>	<u>107</u>			<u>42</u>	<u>92</u>	
P16		<u>45</u>	<u>115</u>			<u>45</u>	<u>99</u>	
P17		<u>48</u>	<u>121</u>			<u>48</u>	<u>107</u>	
P18		<u>51</u>	<u>127</u>			<u>51</u>	<u>111</u>	
P19		<u>54</u>	<u>133</u>			<u>54</u>	<u>116</u>	
P20		<u>57</u>	<u>141</u>			<u>57</u>	<u>119</u>	
		<u>60</u>	<u>144</u>			<u>60</u>	<u>123</u>	
						<u>63</u>	<u>131</u>	
						<u>66</u>	<u>136</u>	
							<u>144</u>	

Company Hunmon Corporation Lease & Well No. Muhlenbruch #2
 Elevation 1232 Kelly Bushing Formation Mississippi Effective Pay - Ft. Ticket No. 13112
 Date 1/12/82 Sec. 5 Twp. 33S Range 3W County Sumner State Kansas
 Test Approved by David J. Goldak Western Representative Robert Davis

Formation Test No. 3 Interval Tested from 3979 ft. to 3995 ft. Total Depth 3995 ft.
 Packer Depth 3979 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3974 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3986 ft. Recorder Number 11018 Cap. 4425
 Bottom Recorder Depth (Outside) 3990 ft. Recorder Number 13403 Cap. 4050
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Big H Drlg. Rig #1 Drill Collar Length 375 I. D. - in.
 Mud Type Oil Viscosity _____ Weight Pipe Length _____ I. D. _____ in.
 Weight _____ Water Loss _____ cc. Drill Pipe Length 3606 I. D. _____ in.
 Chlorides _____ P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.
 Jars: Make None Serial Number _____ Anchor Length 16 ft. Size 5 1/2 OD in.
 Did Well Flow? _____ 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 XH in.

Blow: MISRUN

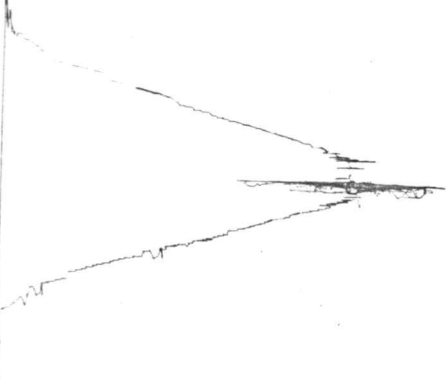
Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of MISRUN

Remarks: Tool would not go to bottom; stopped twenty-five feet off bottom.

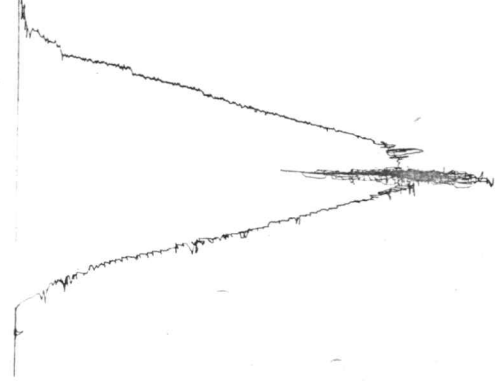
NO PRESSURES AVAILABLE MISRUN

	A.M. P.M.		A.M. P.M.	
Time Set Packer(s)		Time Started Off Bottom		Maximum Temperature
Initial Hydrostatic Pressure		(A)		P.S.I.
Initial Flow Period		Minutes (B)		P.S.I. to (C) P.S.I.
Initial Closed In Period		Minutes (D)		P.S.I.
Final Flow Period		Minutes (E)		P.S.I. to (F) P.S.I.
Final Closed In Period		Minutes (G)		P.S.I.
Final Hydrostatic Pressure		(H)		P.S.I.

W # 13112
I

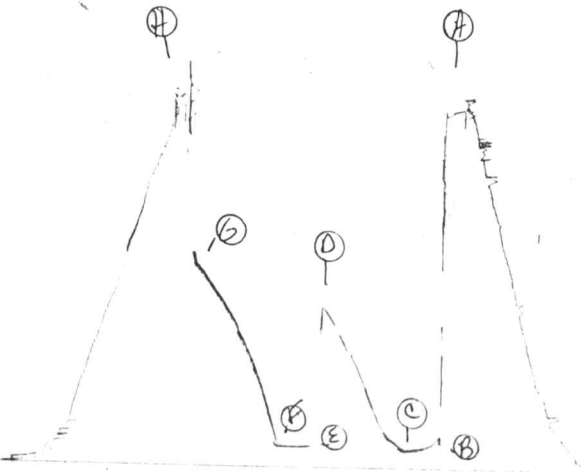


W # 13112
O



JK # 13113

I



Company Hummon Corporation Lease & Well No. Muhlenbruch #2
 Elevation 1232 Kelly Bushing Formation Mississippi Effective Pay - Ft. Ticket No. 13113
 Date 1/13/82 Sec. 5 Twp. 33S Range 3W County Sumner State Kansas
 Test Approved by David J. Goldak Western Representative Robert Davis

Formation Test No. 4 Interval Tested from 3979 ft. to 3995 ft. Total Depth 3995 ft.
 Packer Depth 3979 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3974 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3986 ft. Recorder Number 11018 Cap. 4425
 Bottom Recorder Depth (Outside) 3990 ft. Recorder Number 13403 Cap. 4050
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Big H Drlg. Rig #1 Drill Collar Length 375 I. D. - in.
 Mud Type chemical Viscosity 48 Weight Pipe Length - I. D. - in.
 Weight 9.3 Water Loss 18.8 cc. Drill Pipe Length 3606 I. D. - in.
 Chlorides 17,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.
 Jars: Make None Serial Number - Anchor Length 16 ft. Size 5 1/2 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 XH in.

Blow: Strong throughout test.

Recovered 180 ft. of slightly gas cut and oil spotted drilling mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks: Slid ten feet to bottom.

Time Set Packer(s) 8:50 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 11:50 ~~P.M.~~ ^{A.M.} Maximum Temperature 115°
 Initial Hydrostatic Pressure (A) 1987 P.S.I.
 Initial Flow Period (B) 25 Minutes P.S.I. to (C) 111 P.S.I.
 Initial Closed In Period (D) 63 Minutes P.S.I.
 Final Flow Period (E) 30 Minutes P.S.I. to (F) 133 P.S.I.
 Final Closed In Period (G) 63 Minutes P.S.I.
 Final Hydrostatic Pressure (H) 1969 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 1/13/82 Test Ticket No. 13113
 Recorder No. 11018 Capacity 4425 Location 3986 Ft.
 Clock No. --- Elevation 1232 Kelly Bushing Well Temperature 115 °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	1987	P.S.I.	8:50A	M
B. First Initial Flow Pressure	111	P.S.I.	30	25
C. First Final Flow Pressure	111	P.S.I.	60	63
D. Initial Closed-in Pressure	919	P.S.I.	30	30
E. Second Initial Flow Pressure	133	P.S.I.	60	63
F. Second Final Flow Pressure	133	P.S.I.		
G. Final Closed-in Pressure	1147	P.S.I.		
H. Final Hydrostatic Mud	1969	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	5		21		6		21	
	of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
	final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1 0	111	0	111	0	133	0	133	
P 2 5	111	3	119	5	133	3	192	
P 3 10	111	6	137	10	133	6	278	
P 4 15	111	9	157	15	133	9	353	
P 5 20	111	12	171	20	133	12	418	
P 6 25	111	15	202	25	133	15	482	
P 7		18	233	30	133	18	550	
P 8		21	270			21	607	
P 9		24	321			24	659	
P10		27	382			27	707	
P11		30	440			30	756	
P12		33	497			33	813	
P13		36	548			36	858	
P14		39	600			39	894	
P15		42	646			42	931	
P16		45	672			45	970	
P17		48	723			48	1002	
P18		51	760			51	1039	
P19		54	812			54	1068	
P20		57	858			57	1103	
WTC - 4		60	893			60	1134	
		63	919			63	1147	