

Company Wells Energy Company Lease & Well No. Shook #1
 Elevation 2355 Kelly Bushing Marmaton Effective Pay --- Ft. Ticket No. 4071
 Date 11/30/79 Sec. 23 Twp. 29S Range 19W County Kiowa State Kansas
 Test Approved by H. Clark Western Representative Rod Tritt

Formation Test No. 1 Interval Tested from 4873 ft. to 4950 ft. Total Depth 4950 ft.
 Packer Depth 4868 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4873 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 4892 ft. Recorder Number 2606 Cap. 4150
 Bottom Recorder Depth (Outside) 4895 ft. Recorder Number 6074 Cap. 5200
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Xplor Drilling Drill Collar Length 4629 I. D. 2 1/4 in.
 Mud Type premix-chemical viscosity 34 Weight Pipe Length - I. D. - in.
 Weight 9.1 Water Loss 27.2 cc. Drill Pipe Length 245 I. D. 3.2 in.
 Chlorides 10,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number 407 Anchor Length 77 ft. Size 5 1/2 OD D. C. 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 in.

Blow: Very weak blow on initial flow period. Very weak on final flow; died ten minutes into flow.

Recovered 180 ft. of drilling mud
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 10:45 ~~P.M.~~ A.M. Time Started Off Bottom 1:45 ~~P.M.~~ A.M. Maximum Temperature 127⁰
 Initial Hydrostatic Pressure (A) 2399 P.S.I.
 Initial Flow Period Minutes 30 (B) 100 P.S.I. to (C) 87 P.S.I.
 Initial Closed In Period Minutes 60 (D) 123 P.S.I.
 Final Flow Period Minutes 30 (E) 104 P.S.I. to (F) 97 P.S.I.
 Final Closed In Period Minutes 60 (G) 112 P.S.I.
 Final Hydrostatic Pressure (H) 2385 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 11/30/79 Recorder No. 2606 Capacity 4150 Test Ticket No. 4071
 Clock No. --- Elevation 2355 Kelly Bushing Location 4892 Ft. 127
 Well Temperature °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	2399	P.S.I.	10:45A	M
B. First Initial Flow Pressure	100	P.S.I.	30	30
C. First Final Flow Pressure	87	P.S.I.	60	60
D. Initial Closed-in Pressure	123	P.S.I.	30	30
E. Second Initial Flow Pressure	104	P.S.I.	60	60
F. Second Final Flow Pressure	97	P.S.I.		
G. Final Closed-in Pressure	112	P.S.I.		
H. Final Hydrostatic Mud	2385	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: 20 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

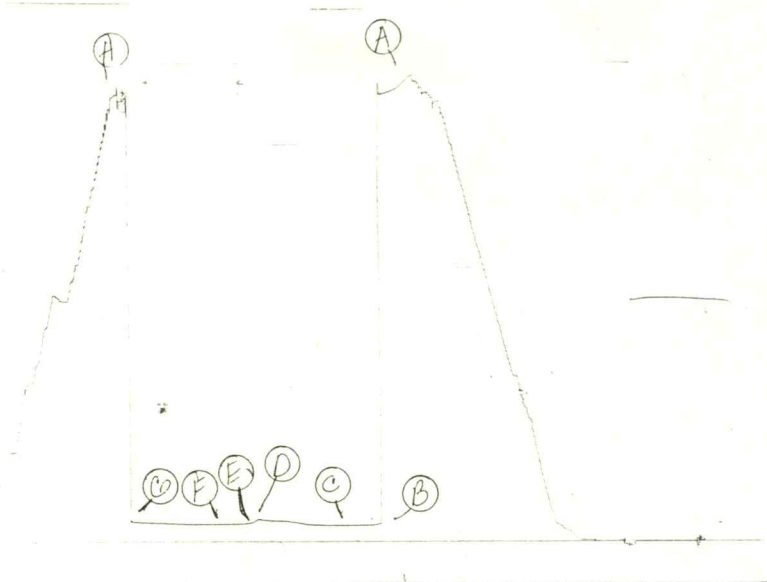
Second Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 20 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>100</u>	<u>0</u>	<u>87</u>	<u>0</u>	<u>104</u>	<u>0</u>	<u>97</u>
P 2 <u>5</u>	<u>92</u>	<u>3</u>	<u>87</u>	<u>5</u>	<u>104</u>	<u>3</u>	<u>97</u>
P 3 <u>10</u>	<u>89</u>	<u>6</u>	<u>87</u>	<u>10</u>	<u>98</u>	<u>6</u>	<u>97</u>
P 4 <u>15</u>	<u>87</u>	<u>9</u>	<u>87</u>	<u>15</u>	<u>97</u>	<u>9</u>	<u>97</u>
P 5 <u>20</u>	<u>87</u>	<u>12</u>	<u>87</u>	<u>20</u>	<u>97</u>	<u>12</u>	<u>97</u>
P 6 <u>25</u>	<u>87</u>	<u>15</u>	<u>89</u>	<u>25</u>	<u>97</u>	<u>15</u>	<u>97</u>
P 7 <u>30</u>	<u>87</u>	<u>18</u>	<u>89</u>	<u>30</u>	<u>97</u>	<u>18</u>	<u>97</u>
P 8 <u> </u>	<u> </u>	<u>21</u>	<u>92</u>	<u> </u>	<u> </u>	<u>21</u>	<u>98</u>
P 9 <u> </u>	<u> </u>	<u>24</u>	<u>95</u>	<u> </u>	<u> </u>	<u>24</u>	<u>99</u>
P10 <u> </u>	<u> </u>	<u>27</u>	<u>98</u>	<u> </u>	<u> </u>	<u>27</u>	<u>100</u>
P11 <u> </u>	<u> </u>	<u>30</u>	<u>100</u>	<u> </u>	<u> </u>	<u>30</u>	<u>101</u>
P12 <u> </u>	<u> </u>	<u>33</u>	<u>103</u>	<u> </u>	<u> </u>	<u>33</u>	<u>102</u>
P13 <u> </u>	<u> </u>	<u>36</u>	<u>105</u>	<u> </u>	<u> </u>	<u>36</u>	<u>103</u>
P14 <u> </u>	<u> </u>	<u>39</u>	<u>108</u>	<u> </u>	<u> </u>	<u>39</u>	<u>104</u>
P15 <u> </u>	<u> </u>	<u>42</u>	<u>110</u>	<u> </u>	<u> </u>	<u>42</u>	<u>105</u>
P16 <u> </u>	<u> </u>	<u>45</u>	<u>112</u>	<u> </u>	<u> </u>	<u>45</u>	<u>106</u>
P17 <u> </u>	<u> </u>	<u>48</u>	<u>113</u>	<u> </u>	<u> </u>	<u>48</u>	<u>107</u>
P18 <u> </u>	<u> </u>	<u>51</u>	<u>114</u>	<u> </u>	<u> </u>	<u>51</u>	<u>109</u>
P19 <u> </u>	<u> </u>	<u>54</u>	<u>116</u>	<u> </u>	<u> </u>	<u>54</u>	<u>110</u>
P20 <u> </u>	<u> </u>	<u>57</u>	<u>119</u>	<u> </u>	<u> </u>	<u>57</u>	<u>111</u>
WTC - 4		<u>60</u>	<u>123</u>			<u>60</u>	<u>112</u>

TKL #4071

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Company Wells Energy Company Lease & Well No. Shook #1
 Elevation 2348 Formation Mississippi Effective Pay ---- Ft. Ticket No. 4445
 Date 12/3/79 Sec. 23 Twp. 29S Range 19W County Kiowa State Kansas
 Test Approved by H. Clark Western Representative Dave Sloan

Formation Test No. 2 Interval Tested from 5090 ft. to 5108 ft. Total Depth 5164 ft.
 Packer Depth 5085 ft. Size 6 3/4 in. Packer Depth 5108 ft. Size 6 3/4 in.
 Packer Depth 5090 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 5094 ft. Recorder Number 2604 Cap. 4150
 Bottom Recorder Depth (Outside) 5097 ft. Recorder Number 6246 Cap. 5200
 Below Straddle Recorder Depth 5132 ft. Recorder Number 1562 Cap. 3150

Drilling Contractor Xplor Drilling Drill Collar Length 210 I. D. 2.2 in.
 Mud Type chemical Viscosity 46 Weight Pipe Length - I. D. - in.
 Weight 9.4 Water Loss 31.2 cc. Drill Pipe Length 4851 I. D. 3.8 in.
 Chlorides 13,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number - Anchor Length 18 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 in.

Blow: Weak, dying in seventeen minutes on initial flow period.

Recovered 10 ft. of drilling mud
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 12:25 ^{AM} P.M. Time Started Off Bottom 3:25 ^{AM} P.M. Maximum Temperature 123⁰
 Initial Hydrostatic Pressure (A) 2468 P.S.I.
 Initial Flow Period Minutes 30 (B) 43 P.S.I. to (C) 30 P.S.I.
 Initial Closed In Period Minutes 60 (D) 1102 P.S.I.
 Final Flow Period Minutes 30 (E) 43 P.S.I. to (F) 32 P.S.I.
 Final Closed In Period Minutes 66 (G) 292 P.S.I.
 Final Hydrostatic Pressure (H) 2460 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 12/3/79 Test Ticket No. 4445
 Recorder No. 2605 Capacity 4150 Location 5094 Ft.
 Clock No. --- Elevation 2348 Well Temperature 123 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2468	P.S.I.	12:25P	M
B First Initial Flow Pressure	43	P.S.I.	30	Mins. 30 Mins.
C First Final Flow Pressure	30	P.S.I.	60	Mins. 60 Mins.
D Initial Closed-in Pressure	1102	P.S.I.	30	Mins. 30 Mins.
E Second Initial Flow Pressure	43	P.S.I.	60	Mins. 66 Mins.
F Second Final Flow Pressure	32	P.S.I.		
G Final Closed-in Pressure	292	P.S.I.		
H Final Hydrostatic Mud	2460	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: 20 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: 22 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 0	43	0	30	0	43	0	32
P 2 5	40	3	77	5	45	3	32
P 3 10	34	6	378	10	38	6	33
P 4 15	32	9	461	15	36	9	34
P 5 20	32	12	550	20	34	12	35
P 6 25	30	15	644	25	34	15	37
P 7 30	30	18	684	30	32	18	39
P 8		21	715			21	43
P 9		24	759			24	45
P10		27	816			27	48
P11		30	897			30	52
P12		33	922			33	68
P13		36	950			36	81
P14		39	985			39	96
P15		42	1017			42	111
P16		45	1036			45	130
P17		48	1052			48	149
P18		51	1065			51	177
P19		54	1084			54	203
P20		57	1096			57	224
		60	1102			60	258
						63	282
						66	300

