



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

Company Petroleum Energy, Inc. Lease & Well No. Grossardt #1-A
 Elevation 1840 Ground Level Formation Kansas City Effective Pay -- Ft. Ticket No. 2730
 Date 5/31/79 Sec. 9 Twp. 17S Range 11W County Barton State Kansas
 Test Approved by Jim Musgrove Western Representative Denis Wondra

Formation Test No. 1 Interval Tested from 3187' ft. to 3205 ft. Total Depth 3205 ft.
 Packer Depth 3182 ft. Size 6 3/4 in. Packer Depth 3187 ft. Size 6 3/4 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set --

Top Recorder Depth (Inside) 3195 ft. Recorder Number 3474 Cap. 3000
 Bottom Recorder Depth (Outside) 3198 ft. Recorder Number 3659 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor White & Ellis Drilling Rig #2 Drill Collar Length 330 I. D. 2.7 in.
 Mud Type starch Viscosity 40 Weight Pipe Length - I. D. - in.
 Weight 9.7 Water Loss 10.4 cc. Drill Pipe Length 2836 I. D. 3.8 in.
 Chlorides 40,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 FH in.
 Jars: Make -- Serial Number -- Anchor Length 18 ft. Size 5 1/2 OD in.
 Did Well Flow? -- Reversed Out -- Surface Choke Size 3/4 in. Bottom Choke Size 3/4
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH

Blow: Fair. Increased to good in 20 minutes on first flow period. Good throughout second opening.

Recovered 60 ft. of gas in pipe
 Recovered 170 ft. of oil cut gassy mud (Top 110; 65% mud; 17% water; 17% oil)
(Middle 60' 25% mud; 40% water; 35% oil)
 Recovered 60 ft. of slightly oil and gas cut muddy water
 Recovered ft. of

Remarks:

Time Set Packer(s) 7:23 ~~A.M.~~ P.M. Time Started Off Bottom 9:25 ~~A.M.~~ P.M. Maximum Temperature 105
 Initial Hydrostatic Pressure (A) 1598 P.S.I.
 Initial Flow Period Minutes 30 (B) 55 P.S.I. to (C) 56 P.S.I.
 Initial Closed In Period Minutes 30 (D) 562 P.S.I.
 Final Flow Period Minutes 30 (E) 92 P.S.I. to (F) 85 P.S.I.
 Final Closed In Period Minutes 30 (G) 467 P.S.I.
 Final Hydrostatic Pressure (H) 1587 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 5-31-79 Test Ticket No. 2730
 Recorder No. 3474 Capacity 3000 Location 3195 Ft.
 Clock No. - Elevation 1840 Ground Level Well Temperature 105 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1598</u> P.S.I.	Open Tool	<u>7:23P.</u> M	
B First Initial Flow Pressure	<u>55</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>56</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>562</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>92</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>85</u> P.S.I.			
G Final Closed-in Pressure	<u>467</u> P.S.I.			
H Final Hydrostatic Mud	<u>1587</u> P.S.I.			

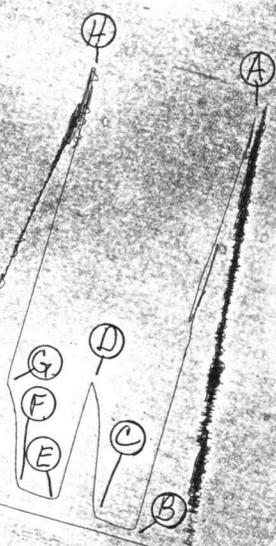
PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>55</u>	<u>0</u>	<u>56</u>	<u>0</u>	<u>92</u>	<u>0</u>	<u>85</u>
P 2 <u>5</u>	<u>41</u>	<u>3</u>	<u>76</u>	<u>5</u>	<u>76</u>	<u>3</u>	<u>112</u>
P 3 <u>10</u>	<u>41</u>	<u>6</u>	<u>133</u>	<u>10</u>	<u>74</u>	<u>6</u>	<u>155</u>
P 4 <u>15</u>	<u>45</u>	<u>9</u>	<u>223</u>	<u>15</u>	<u>76</u>	<u>9</u>	<u>218</u>
P 5 <u>20</u>	<u>48</u>	<u>12</u>	<u>321</u>	<u>20</u>	<u>79</u>	<u>12</u>	<u>282</u>
P 6 <u>25</u>	<u>52</u>	<u>15</u>	<u>392</u>	<u>25</u>	<u>83</u>	<u>15</u>	<u>335</u>
P 7 <u>30</u>	<u>56</u>	<u>18</u>	<u>445</u>	<u>30</u>	<u>85</u>	<u>18</u>	<u>373</u>
P 8 _____	_____	<u>21</u>	<u>482</u>	_____	_____	<u>21</u>	<u>398</u>
P 9 _____	_____	<u>24</u>	<u>517</u>	_____	_____	<u>24</u>	<u>430</u>
P10 _____	_____	<u>27</u>	<u>545</u>	_____	_____	<u>27</u>	<u>456</u>
P11 _____	_____	<u>30</u>	<u>562</u>	_____	_____	<u>30</u>	<u>467</u>
P12 _____	_____	_____	_____	_____	_____	_____	_____
P13 _____	_____	_____	_____	_____	_____	_____	_____
P14 _____	_____	_____	_____	_____	_____	_____	_____
P15 _____	_____	_____	_____	_____	_____	_____	_____
P16 _____	_____	_____	_____	_____	_____	_____	_____
P17 _____	_____	_____	_____	_____	_____	_____	_____
P18 _____	_____	_____	_____	_____	_____	_____	_____
P19 _____	_____	_____	_____	_____	_____	_____	_____
P20 _____	_____	_____	_____	_____	_____	_____	_____

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Company Petroleum Energy, Inc. Lease & Well No. Grossardt #1 -A
 Elevation 1840 Ground Level Formation Arbuckle Effective Pay -- Ft. Ticket No. 2731
 Date 6/1/79 Sec. 4 Twp. 17S Range 11W County Barton State Kansas
 Test Approved by Jim Musgrove Western Representative Denis Wondra
 Formation Test No. 2 Interval Tested from 3275 ft. to 3293 ft. Total Depth 3293 ft.
 Packer Depth 3270 ft. Size 6 3/4 in. Packer Depth 3275 ft. Size 6 3/4 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set --
 Top Recorder Depth (Inside) 3283 ft. Recorder Number 3474 Cap. 3000
 Bottom Recorder Depth (Outside) 3286 ft. Recorder Number 3659 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor White & Ellis Drilling Rig #2 Drill Collar Length 330 I. D. 2.7 in.
 Mud Type starch Viscosity 38 Weight Pipe Length - I. D. - in.
 Weight 9.7 Water Loss 10.0 cc. Drill Pipe Length 2924 I. D. 3.8 in.
 Chlorides 42,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 FH in.
 Jars: Make -- Serial Number -- Anchor Length 18 ft. Size 5 1/2 OD
 Did Well Flow? No Reversed Out No 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: Weak ;died in 21 minutes on first flow period. No blow on second opening.

Recovered 30 ft. of drilling mud. Few spots of oil on top of tool.
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s)	<u>4:08</u>	A.M. P.M.	Time Started Off Bottom	<u>6:10</u>	A.M. P.M.	Maximum Temperature	<u>106</u>
Initial Hydrostatic Pressure			(A)	<u>1669</u>	P.S.I.		
Initial Flow Period	Minutes	<u>30</u>	(B)	<u>30</u>	P.S.I. to (C)	<u>26</u>	P.S.I.
Initial Closed In Period	Minutes	<u>30</u>	(D)	<u>38</u>	P.S.I.		
Final Flow Period	Minutes	<u>30</u>	(E)	<u>30</u>	P.S.I. to (F)	<u>27</u>	P.S.I.
Final Closed In Period	Minutes	<u>30</u>	(G)	<u>32</u>	P.S.I.		
Final Hydrostatic Pressure			(H)	<u>1662</u>	P.S.I.		

WESTERN TESTING CO., INC.
Pressure Data

Date 6-1-79 Test Ticket No. 2731
 Recorder No. 3474 Capacity 3000 Location 3283 Ft.
 Clock No. - Elevation 1840 Ground Level Well Temperature 106 °F

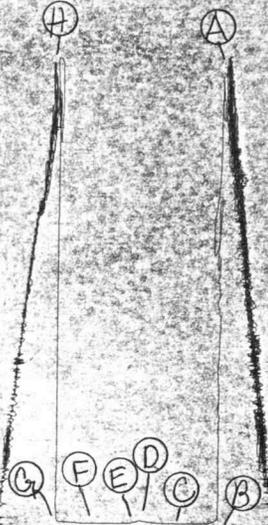
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1669 P.S.I.	Open Tool	4:08P.M.	
B First Initial Flow Pressure	30 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	26 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	38 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	30 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	27 P.S.I.			
G Final Closed-in Pressure	32 P.S.I.			
H Final Hydrostatic Mud	1662 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>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>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	0 30	0 26		0 30		0 27	
P 2	5 30	3 26		5 29		3 27	
P 3	10 26	6 26		10 27		6 27	
P 4	15 26	9 26		15 27		9 27	
P 5	20 26	12 26		20 27		12 27	
P 6	25 26	15 26		25 27		15 27	
P 7	30 26	18 27		30 27		18 29	
P 8		21 30				21 30	
P 9		24 33				24 31	
P10		27 35				27 32	
P11		30 38				30 32	
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

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Company Petroleum Energy, Inc. Lease & Well No. Grossardt #1-A
Elevation 1840 Ground Level Formation Arbuckle Effective Pay --- Ft. Ticket No. 2732
Date 6/2/79 Sec. 4 Twp. 17S Range 11W County Barton State Kansas
Test Approved by Jim Musgrove Western Representative Denis Wondra

Formation Test No. 3 Interval Tested from 3276' ft. to 3297' ft. Total Depth 3297' ft.
Packer Depth 3271 ft. Size 6 3/4 in. Packer Depth 3276 ft. Size 6 3/4 in.
Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set --

Top Recorder Depth (Inside) 3287 ft. Recorder Number 3474 Cap. 3000
Bottom Recorder Depth (Outside) 3290 ft. Recorder Number 3659 Cap. 4000
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor White & Ellis Drilling Rig #2 Drill Collar Length 330 I. D. 2.7 in.
Mud Type starch Viscosity 38 Weight Pipe Length - I. D. - in.
Weight 9.7 Water Loss 10.0 cc. Drill Pipe Length 2925 I. D. 3.8 in.
Chlorides 42,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 FH in.
Jars: Make -- Serial Number -- Anchor Length 21 ft. Size 5 1/2 OD in.
Did Well Flow? Yes Reversed Out No 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: Weak steady throughout first flow period. Weak; increased to 1" by end of second opening

Recovered 60 ft. of gas in pipe
Recovered 90 ft. of muddy oil
Recovered 90 ft. of very heavy oil cut mud
Recovered ft. of
Recovered ft. of
Remarks: Slid tool 4' to bottom.

Time Set, Packer(s) 2:23 ~~P.M.~~ A.M. Time Started Off Bottom 4:55 ~~P.M.~~ A.M. Maximum Temperature 107
Initial Hydrostatic Pressure (A) 1678 P.S.I.
Initial Flow Period Minutes 45 (B) 53 P.S.I. to (C) 61 P.S.I.
Initial Closed In Period Minutes 30 (D) 1080 P.S.I.
Final Flow Period Minutes 45 (E) 79 P.S.I. to (F) 83 P.S.I.
Final Closed In Period Minutes 30 (G) 1083 P.S.I.
Final Hydrostatic Pressure (H) 1657 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 6-2-79 Test Ticket No. 2752
 Recorder No. 3474 Capacity 3000 Location 3287 Ft.
 Clock No. - Elevation 1840 Ground Level Well Temperature 107 °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>1678</u>	P.S.I.	<u>2:23A.</u>	<u>M</u>
B. First Initial Flow Pressure	<u>53</u>	P.S.I.	<u>45</u>	<u>45</u> Mins.
C. First Final Flow Pressure	<u>61</u>	P.S.I.	<u>30</u>	<u>30</u> Mins.
D. Initial Closed-in Pressure	<u>1080</u>	P.S.I.	<u>45</u>	<u>45</u> Mins.
E. Second Initial Flow Pressure	<u>79</u>	P.S.I.	<u>30</u>	<u>30</u> Mins.
F. Second Final Flow Pressure	<u>83</u>	P.S.I.		
G. Final Closed-in Pressure	<u>1083</u>	P.S.I.		
H. Final Hydrostatic Mud	<u>1657</u>	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure Breakdown: <u>9</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>9</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In 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.	Point Minutes
P 1	<u>53</u>	<u>0</u>	<u>61</u>	<u>0</u>	<u>79</u>	<u>0</u>	<u>83</u>	<u>0</u>
P 2	<u>50</u>	<u>3</u>	<u>188</u>	<u>3</u>	<u>74</u>	<u>5</u>	<u>291</u>	<u>3</u>
P 3	<u>48</u>	<u>6</u>	<u>615</u>	<u>6</u>	<u>73</u>	<u>10</u>	<u>747</u>	<u>6</u>
P 4	<u>53</u>	<u>9</u>	<u>891</u>	<u>9</u>	<u>73</u>	<u>15</u>	<u>979</u>	<u>9</u>
P 5	<u>53</u>	<u>12</u>	<u>1000</u>	<u>12</u>	<u>74</u>	<u>20</u>	<u>1038</u>	<u>12</u>
P 6	<u>55</u>	<u>15</u>	<u>1038</u>	<u>15</u>	<u>76</u>	<u>25</u>	<u>1057</u>	<u>15</u>
P 7	<u>56</u>	<u>18</u>	<u>1056</u>	<u>18</u>	<u>80</u>	<u>30</u>	<u>1068</u>	<u>18</u>
P 8	<u>58</u>	<u>21</u>	<u>1065</u>	<u>21</u>	<u>82</u>	<u>35</u>	<u>1074</u>	<u>21</u>
P 9	<u>58</u>	<u>24</u>	<u>1071</u>	<u>24</u>	<u>83</u>	<u>40</u>	<u>1077</u>	<u>24</u>
P10	<u>61</u>	<u>27</u>	<u>1076</u>	<u>27</u>	<u>83</u>	<u>45</u>	<u>1080</u>	<u>27</u>
P11		<u>30</u>	<u>1080</u>	<u>30</u>			<u>1083</u>	<u>30</u>
P12								
P13								
P14								
P15								
P16								
P17								
P18								
P19								
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