



WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET No 6401

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

Elevation 1902 G.H. Formation KC Eff. Pay      Ft.

District St. Bernard Date 7-7-80 Customer Order No.     

COMPANY NAME Petroleum Energy Inc  
ADDRESS Suite 710 One Twenty Building Wichita, Ks 67202

LEASE AND WELL NO. Huffman #1 COUNTY Barton STATE Ks Sec. 13 Twp. 16S Rge. 12W

Mail Invoice To Huffman #1 Same Co. Name      Address      No. Copies Requested 5

Mail Charts To Same one copy to Morgan - St. Bernard Address      No. Copies Requested 58

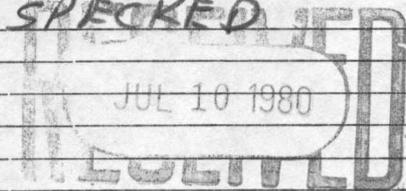
Formation Test No. 1 Interval Tested from 3059 ft. to 3116 ft. Total Depth 3116 ft.  
Packer Depth 3059 ft. Size 6 3/4 in. Packer Depth      ft. Size      in.  
Packer Depth 3054 ft. Size 6 3/4 in. Packer Depth      ft. Size      in.  
Depth of Selective Zone Set     

Top Recorder Depth (Inside) 3071 ft. Recorder Number 6234 Cap. 4500  
Bottom Recorder Depth (Outside) 3075 ft. Recorder Number 4339 Cap. 4300  
Below Straddle Recorder Depth      ft. Recorder Number      Cap.     

Drilling Contractor White & Ellis #2 Drill Collar Length 385' I. D. 2.2 in.  
Mud Type Stard-Sulphel Viscosity 40 Weight Pipe Length      I. D.      in.  
Weight 10.0 Water Loss 11.6 cc. Drill Pipe Length 2644 I. D. 3.8 in.  
Chlorides 82,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 in.  
Jars: Make      Serial Number      Anchor Length 57 ft. Size 5 1/2 in.  
Did Well Flow? No Reversed Out No Surface Choke Size 1 1/2 in. Bottom Choke Size 1 1/2 in.  
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 F in.

Blow: FF - Weak Blow throughout  
FF - No Blow Flushed tool no help!

Recovered 20 ft. of DRLG MUD SLIGHTLY OIL SPECKLED  
(24,000 P.P.M)  
Recovered      ft. of       
Recovered      ft. of       
Recovered      ft. of       
Recovered      ft. of     



Remarks: Arrived - 9:45 A.M. 7-7-80  
Left - 4:30 P.M. 7-7-80

Time Set Packer(s) 11:45 A.M. Time Started Off Bottom 1:45 A.M. Maximum Temperature 101°  
Initial Hydrostatic Pressure 1644 P.S.I. (A) 22 P.S.I. (B) 22 P.S.I. (C)  
Initial Flow Period 30 Minutes (B) 22 P.S.I. (C)  
Initial Closed In Period 30 Minutes (D) 819 P.S.I.  
Final Flow Period 30 Minutes (E) 34 P.S.I. (F) 45 P.S.I.  
Final Closed In Period 30 Minutes (G) 752 P.S.I.  
Final Hydrostatic Pressure 1633 P.S.I. (H)

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By       
Signature of Customer or his authorized representative

Western Representative Dan Delaney

FIELD INVOICE

Open Hole Test \$ 550.00  
Misrun \$       
Straddle Test \$       
Jars \$       
Selective Zone \$       
Safety Joint \$       
Standby \$       
Evaluation \$       
Extra Packer \$       
Circ. Sub. \$       
Mileage 30 MILES \$ 22.50  
Fluid Sampler \$       
Extra Charts \$     

TOTAL \$ 572.50

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 7-7 Recorder No. 6234 Capacity 4500 Test Ticket No. 6401  
 Clock No. — Elevation 1902 ft Location 3071 F  
 Well Temperature 101 °F

Point	Pressure	Unit	Open Tool	Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>1645</u>	P.S.I.		<u>11:45 AM</u>	
B. First Initial Flow Pressure	<u>34</u>	P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C. First Final Flow Pressure	<u>32</u>	P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D. Initial Closed-in Pressure	<u>829</u>	P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E. Second Initial Flow Pressure	<u>45</u>	P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
F. Second Final Flow Pressure	<u>46</u>	P.S.I.			
G. Final Closed-in Pressure	<u>745</u>	P.S.I.			
H. Final Hydrostatic Mud	<u>1638</u>	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: 10 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.

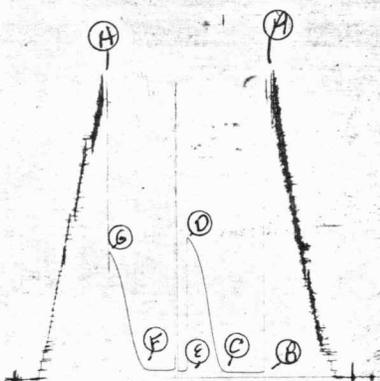
Final Shut-In  
 Breakdown: 9 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>34</u>	0	<u>32</u>	0	<u>45</u>	0	<u>46</u>
P 2 5	<u>29</u>	3	<u>60</u>	5	<u>41</u>	3	<u>66</u>
P 3 10	<u>29</u>	6	<u>131</u>	10	<u>48</u> <i>flushed tool</i>	6	<u>111</u>
P 4 15	<u>32</u>	9	<u>250</u>	15	<u>46</u>	9	<u>190</u>
P 5 20	<u>—</u>	12	<u>385</u>	20	<u>—</u>	12	<u>291</u>
P 6 25	<u>—</u>	15	<u>525</u>	25	<u>—</u>	15	<u>410</u>
P 7 30	<u>32</u>	18	<u>642</u>	30	<u>46</u>	18	<u>526</u>
P 8 35	<u>—</u>	21	<u>728</u>	35	<u>—</u>	21	<u>618</u>
P 9 40	<u>—</u>	24	<u>780</u>	40	<u>—</u>	24	<u>689</u>
P 10 45	<u>—</u>	27	<u>813</u>	45	<u>—</u>	27	<u>745</u>
P 11 50	<u>—</u>	30	<u>829</u>	50	<u>—</u>	30	<u>—</u>
P 12 55	<u>—</u>	33	<u>—</u>	55	<u>—</u>	33	<u>—</u>
P 13 60	<u>—</u>	36	<u>—</u>	60	<u>—</u>	36	<u>—</u>
P 14	<u>—</u>	39	<u>—</u>	65	<u>—</u>	39	<u>—</u>
P 15	<u>—</u>	42	<u>—</u>	70	<u>—</u>	42	<u>—</u>
P 16	<u>—</u>	45	<u>—</u>	75	<u>—</u>	45	<u>—</u>
P 17	<u>—</u>	48	<u>—</u>	80	<u>—</u>	48	<u>—</u>
P 18	<u>—</u>	51	<u>—</u>	85	<u>—</u>	51	<u>—</u>
P 19	<u>—</u>	54	<u>—</u>	90	<u>—</u>	54	<u>—</u>
P 20	<u>—</u>	57	<u>—</u>		<u>—</u>	57	<u>—</u>
	<u>—</u>	60	<u>—</u>		<u>—</u>	60	<u>—</u>

JRT # 6401

J

Hoeffding



Company Petroleum Energy, Inc. Lease & Well No. Hoffman #1  
 Elevation 1902 Ground Level Formation Kansas City Effective Pay ---- Ft. Ticket No. 6401  
 Date 7/7/80 Sec. 13 Twp. 16S Range 12W County Barton State Kansas  
 Test Approved by Jim Musgrove Western Representative Dan Delaney

Formation Test No. 1 Interval Tested from 3059 ft. to 3116 ft. Total Depth 3116 ft.  
 Packer Depth 3059 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Packer Depth 3054 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3071 ft. Recorder Number 6234 Cap. 4500  
 Bottom Recorder Depth (Outside) 3075 ft. Recorder Number 4339 Cap. 4300  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor White & Ellis Drilling Rig #2 Drill Collar Length 385 I. D. 2.2 in.  
 Mud Type starch-salt-gel Viscosity 40 Weight Pipe Length - I. D. - in.  
 Weight 10.0 Water Loss 11.6 cc. Drill Pipe Length 2644 I. D. 3.8 in.  
 Chlorides 82,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 in.  
 Jars: Make -- Serial Number - Anchor Length 57 ft. Size 5 1/2 in.  
 Did Well Flow? No Reversed Out No Surface Choke Size 1/2 in. Bottom Choke Size 1/2 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Initial flow - weak blow throughout. Final flow - no blow. Flushed tool - no help.

Recovered 20 ft. of drilling mud slightly oil specked  
 Recovered - ft. of (Chlorides 74,000 ppm)  
 Recovered - ft. of -  
 Recovered - ft. of -  
 Recovered - ft. of -

Remarks: -

Time Set Packer(s) 11:45 ~~P.M.~~ <sup>A.M.</sup> Time Started Off Bottom 1:45 ~~P.M.~~ <sup>A.M.</sup> Maximum Temperature 101°  
 Initial Hydrostatic Pressure (A) 1645 P.S.I.  
 Initial Flow Period Minutes 30 (B) 34 P.S.I. to (C) 32 P.S.I.  
 Initial Closed In Period Minutes 30 (D) 829 P.S.I.  
 Final Flow Period Minutes 30 (E) 45 P.S.I. to (F) 46 P.S.I.  
 Final Closed In Period Minutes 27 (G) 745 P.S.I.  
 Final Hydrostatic Pressure (H) 1638 P.S.I.

# WESTERN TESTING CO., INC.

## Pressure Data

Date 7/7/80

Test Ticket No. 6401

Recorder No. 6234

Capacity 4500

Location 3071 Ft.

Clock No. - Elevation 1902 Ground Level

Well Temperature 101 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1645</u> P.S.I.	Open Tool	<u>11:45A</u> M	
B First Initial Flow Pressure	<u>34</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>32</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>829</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>45</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
F Second Final Flow Pressure	<u>46</u> P.S.I.			
G Final Closed-in Pressure	<u>745</u> P.S.I.			
H Final Hydrostatic Mud	<u>1638</u> 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: 10 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: 9 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>34</u>	<u>0</u>	<u>32</u>	<u>0</u>	<u>45</u>	<u>0</u>	<u>46</u>
P 2 <u>5</u>	<u>29</u>	<u>3</u>	<u>60</u>	<u>5</u>	<u>41</u>	<u>3</u>	<u>66</u>
P 3 <u>10</u>	<u>29</u>	<u>6</u>	<u>131</u>	<u>10</u>	<u>48</u>	<u>6</u>	<u>111</u>
P 4 <u>15</u>	<u>32</u>	<u>9</u>	<u>250</u>	<u>15</u>	<u>46</u>	<u>9</u>	<u>190</u>
P 5 <u>20</u>	<u>32</u>	<u>12</u>	<u>385</u>	<u>20</u>	<u>46</u>	<u>12</u>	<u>291</u>
P 6 <u>25</u>	<u>32</u>	<u>15</u>	<u>525</u>	<u>25</u>	<u>46</u>	<u>15</u>	<u>410</u>
P 7 <u>30</u>	<u>32</u>	<u>18</u>	<u>642</u>	<u>30</u>	<u>46</u>	<u>18</u>	<u>526</u>
P 8		<u>21</u>	<u>728</u>			<u>21</u>	<u>618</u>
P 9		<u>24</u>	<u>780</u>			<u>24</u>	<u>689</u>
P10		<u>27</u>	<u>813</u>			<u>27</u>	<u>745</u>
P11		<u>30</u>	<u>829</u>				
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Flushed tool



WESTERN TESTING CO., INC.

FORMATION TESTING

Kelly Bushing

TICKET NO. Kansas City

4269

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

Elevation 1907 K.B. Formation K.C. Eff. Pay Ft.

District Great Bend Date 7-8-80 Customer Order No.

COMPANY NAME Petroleum Energy, Inc.

ADDRESS Suite 710 One Twenty Bldg, Wichita, Ks. 67202

LEASE AND WELL NO. #1 Hoffman COUNTY Barton STATE Ks. Sec. 13 Twp. 16s Rge. 12w

Mail Invoice To Same As Above Co. Name Address No. Copies Requested 8

Mail Charts To One copy to Jim Musgrove. 641162 gt Bend Hs. 67530 Address No. Copies Requested 8

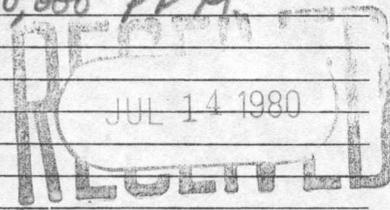
Formation Test No. 2 Interval Tested from 3246 ft. to 3266 ft. Total Depth 3266 ft. Packer Depth 3241 ft. Size 6 3/4 in. Packer Depth 3246 ft. Size 6 3/4 in. Packer Depth ft. Size in. Packer Depth ft. Size in. Depth of Selective Zone Set

Top Recorder Depth (Inside) 3256 ft. Recorder Number 3474 Cap. 3000 Bottom Recorder Depth (Outside) 3259 ft. Recorder Number 3659 Cap. 4000 Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Whitet Ellis Rig #2 Mud Type Starch Viscosity 40 Weight 10.0 Water Loss 6.4 cc. Chlorides 82,000 P.P.M. Jars: Make Serial Number Did Well Flow? NO Reversed Out NO Drill Collar Length 300 I. D. 2.7 in. Weight Pipe Length I. D. in. Drill Pipe Length 2924 I. D. 3.8 in. Test Tool Length 22 ft. Tool Size 5300 in. Anchor Length 20 ft. Size 5500 in. Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in. Main Hole Size 7/8 in. Tool Joint Size 4 1/2 in.

Blow: Very Weak. Died In 5min. On 1st F.P. Initial flow Period. Flushed Tool, Very Weak Blow. Died In 5min. On 2nd Opening.

Recovered 15 ft. of mud (Rainbow oil) Chlorides 80,000 P.P.M. Recovered ft. of Remarks:



Arrived 12:30 P.M. Departed 5:30 P.M. 7-8-80

Time Set Packer(s) 1:48 AM P.M. Time Started Off Bottom 2:50 AM P.M. Maximum Temperature 101 Initial Hydrostatic Pressure (A) 1905 P.S.I. Initial Flow Period Minutes 15 (B) 23 P.S.I. to (C) 23 P.S.I. Initial Closed In Period Minutes 15 (D) 30 P.S.I. Final Flow Period Minutes 15 (E) 30 P.S.I. to (F) 30 P.S.I. Final Closed In Period Minutes 15 (G) 38 P.S.I. Final Hydrostatic Pressure (H) 1897 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount. Jim C. Musgrove

Test Approved By Signature of Customer or his authorized representative

Western Representative Denis Wondra Signature

FIELD INVOICE

Open Hole Test \$ 550.00 Misrun \$ Straddle Test \$ Jars \$ Selective Zone \$ Safety Joint \$ Standby \$ Evaluation \$ Extra Packer \$ Circ. Sub. \$ Mileage \$ 24.80 Fluid Sampler \$ Extra Charts \$ TOTAL \$ 574.80

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 7-8 Recorder No. 3474 Capacity 3000 Test Ticket No. 4269  
 Clock No.      Elevation 1907 KB Location 3256 Well Temperature 101

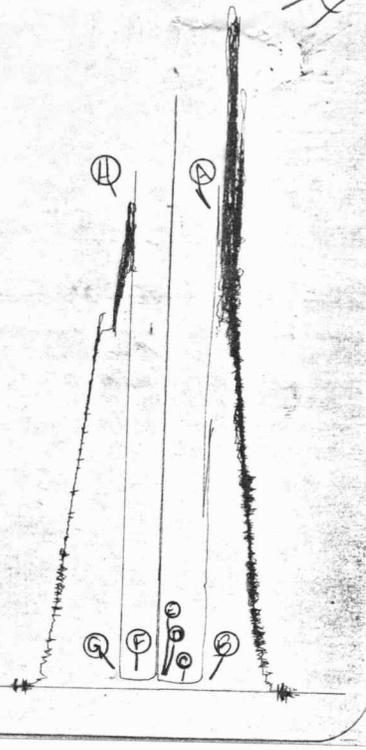
Point	Pressure	P.S.I.	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1919</u>	P.S.I.		<u>1:48</u>	
B First Initial Flow Pressure	<u>54</u>	P.S.I.	Open Tool		
C First Final Flow Pressure	<u>27</u>	P.S.I.	First Flow Pressure	<u>15</u>	<u>15</u>
D Initial Closed-in Pressure	<u>36</u>	P.S.I.	Initial Closed-in Pressure	<u>15</u>	<u>15</u>
E Second Initial Flow Pressure	<u>35</u>	P.S.I.	Second Flow Pressure	<u>15</u>	<u>15</u>
F Second Final Flow Pressure	<u>35</u>	P.S.I.	Final Closed-in Pressure	<u>15</u>	<u>15</u>
G Final Closed-in Pressure	<u>43</u>	P.S.I.			
H Final Hydrostatic Mud	<u>1903</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>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</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.	
P 1	<u>54</u>		<u>27</u>		<u>35</u>		<u>35</u>	
P 2	<u>32</u>		<u>27</u>		<u>45</u>		<u>37</u>	
P 3	<u>28</u>		<u>29</u>		<u>37</u>		<u>38</u>	
P 4	<u>27</u>		<u>30</u>		<u>35</u>		<u>39</u>	
P 5			<u>33</u>				<u>42</u>	
P 6			<u>36</u>				<u>43</u>	
P 7								
P 8								
P 9								
P 10								
P 11								
P 12								
P 13								
P 14								
P 15								
P 16								
P 17								
P 18								
P 19								
P 20								

TKI# 42609  
I.

24



Company Petroleum Energy, Inc. Lease & Well No. Hoffman #1  
 Elevation 1907 Kelly Bushing Formation Kansas City Effective Pay ----- Ft. Ticket No. 4269  
 Date 7/8/80 Sec. 13 Twp. 16S Range 12W County Barton State Kansas  
 Test Approved by Jim C. Musgrove Western Representative Denis Wondra

Formation Test No. 2 Interval Tested from 3246 ft. to 3266 ft. Total Depth 3266 ft.  
 Packer Depth 3241 ft. Size 6 3/4 in. Packer Depth 3246 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) 3256 ft. Recorder Number 3474 Cap. 3000  
 Bottom Recorder Depth (Outside) 3259 ft. Recorder Number 3659 Cap. 4000  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor White & Ellis Drilling Rig #2 Drill Collar Length 300 I. D. 2.7 in.  
 Mud Type starch Viscosity 40 Weight Pipe Length - I. D. - in.  
 Weight 10.0 Water Loss 6.4 cc. Drill Pipe Length 2924 I. D. 3.8 in.  
 Chlorides 87,000 P.P.M. Test Tool Length 22 ft. Tool Size 5 1/2 OD in.  
 Jars: Make -- Serial Number - Anchor Length 20 ft. Size 5 1/2 OD in.  
 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: Very weak; died in five minutes on initial flow period. Flushed tool, very weak blow; died in five minutes on final flow period.

Recovered 15 ft. of mud (rainbow of oil) Chlorides 80,000 ppm  
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of    

Remarks:    

Time Set Packer(s) 1:48 A.M. Time Started Off Bottom 2:50 P.M. Maximum Temperature 101°  
 Initial Hydrostatic Pressure 1919 P.S.I. (A)  
 Initial Flow Period 15 Minutes (B) 54 P.S.I. to (C) 27 P.S.I.  
 Initial Closed In Period 15 Minutes (D) 36 P.S.I.  
 Final Flow Period 15 Minutes (E) 35 P.S.I. to (F) 35 P.S.I.  
 Final Closed In Period 15 Minutes (G) 43 P.S.I.  
 Final Hydrostatic Pressure 1903 P.S.I. (H)

# WESTERN TESTING CO., INC.

## Pressure Data

Date 7-8-80

Test Ticket No. 4269

Recorder No. 3474

Capacity 3000

Location 3256

Clock No. -

Elevation 1907 Kelly Bushing

Well Temperature 101

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1919</u> P.S.I.	Open Tool	<u>1:48P.</u> M	
B First Initial Flow Pressure	<u>54</u> P.S.I.	First Flow Pressure	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>27</u> P.S.I.	Initial Closed-in Pressure	<u>15</u> Mins.	<u>15</u> Mins.
D Initial Closed-in Pressure	<u>36</u> P.S.I.	Second Flow Pressure	<u>15</u> Mins.	<u>15</u> Mins.
E Second Initial Flow Pressure	<u>35</u> P.S.I.	Final Closed-in Pressure	<u>15</u> Mins.	<u>15</u> Mins.
F Second Final Flow Pressure	<u>35</u> P.S.I.			
G Final Closed-in Pressure	<u>43</u> P.S.I.			
H Final Hydrostatic Mud	<u>1903</u> P.S.I.			

### PRESSURE BREAKDOWN

**First Flow Pressure**  
Breakdown: 3 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

**Initial Shut-In**  
Breakdown: 5 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

**Second Flow Pressure**  
Breakdown: 3 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

**Final Shut-In**  
Breakdown: 5 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>54</u>	<u>0</u>	<u>27</u>	<u>0</u>	<u>35</u>	<u>0</u>	<u>35</u>
P 2 <u>5</u>	<u>32</u>	<u>3</u>	<u>27</u>	<u>5</u>	<u>45</u>	<u>3</u>	<u>37</u>
P 3 <u>10</u>	<u>28</u>	<u>6</u>	<u>29</u>	<u>10</u>	<u>37</u>	<u>6</u>	<u>38</u>
P 4 <u>15</u>	<u>27</u>	<u>9</u>	<u>30</u>	<u>15</u>	<u>35</u>	<u>9</u>	<u>39</u>
P 5 _____	_____	<u>12</u>	<u>33</u>	_____	_____	<u>12</u>	<u>42</u>
P 6 _____	_____	<u>15</u>	<u>36</u>	_____	_____	<u>15</u>	<u>43</u>
P 7 _____	_____	_____	_____	_____	_____	_____	_____
P 8 _____	_____	_____	_____	_____	_____	_____	_____
P 9 _____	_____	_____	_____	_____	_____	_____	_____
P10 _____	_____	_____	_____	_____	_____	_____	_____
P11 _____	_____	_____	_____	_____	_____	_____	_____
P12 _____	_____	_____	_____	_____	_____	_____	_____
P13 _____	_____	_____	_____	_____	_____	_____	_____
P14 _____	_____	_____	_____	_____	_____	_____	_____
P15 _____	_____	_____	_____	_____	_____	_____	_____
P16 _____	_____	_____	_____	_____	_____	_____	_____
P17 _____	_____	_____	_____	_____	_____	_____	_____
P18 _____	_____	_____	_____	_____	_____	_____	_____
P19 _____	_____	_____	_____	_____	_____	_____	_____
P20 _____	_____	_____	_____	_____	_____	_____	_____



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

WESTERN TESTING CO., INC.

FORMATION TESTING

Kelly Bushing

TICKET No 4270

Elevation 1907 K.B. Formation Arbuckle Eff. Pay — Ft.

District Great Bend Date 7-10-80 Customer Order No. —

COMPANY NAME Petroleum Energy, Inc.

ADDRESS Suite 710, One Twenty Bldg. Wichita, Ks. 67202

LEASE AND WELL NO. #1 Hofman COUNTY Barton STATE Ks. Sec. 13 Twp. 16s Rge. 12w

Mail Invoice To Same As Above Co. Name Address No. Copies Requested 8

Mail Charts To One copy to Jim Musgrove Bldg 162 of Bund, Ks. 67530 Address No. Copies Requested 8

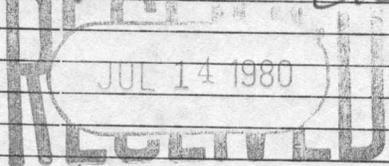
Formation Test No. 3 Interval Tested from 3328 ft. to 3390 ft. Total Depth 3390 ft.  
Packer Depth 3323 ft. Size 6 3/4 in. Packer Depth 3328 ft. Size 6 3/4 in.  
Packer Depth — ft. Size — in. Packer Depth — ft. Size — in.  
Depth of Selective Zone Set —

Top Recorder Depth (Inside) 3348 ft. Recorder Number 3474 Cap. 3000  
Bottom Recorder Depth (Outside) 3351 ft. Recorder Number 3659 Cap. 4000  
Below Straddle Recorder Depth — ft. Recorder Number — Cap. —

Drilling Contractor White & Ellis Rig 2  
Mud Type Starch Viscosity 40  
Weight 10.2 Water Loss 15.8 cc.  
Chlorides 80,000 P.P.M.  
Jars: Make — Serial Number —  
Did Well Flow? NO Reversed Out NO  
Drill Collar Length 300 I. D. 2.7 in.  
Weight Pipe Length — I. D. — in.  
Drill Pipe Length 3006 I. D. 3.8 in.  
Test Tool Length 22 ft. Tool Size 5300 in.  
Anchor Length 62 ft. Size 5300 in.  
Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
Main Hole Size 7 3/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Steady 2" Throughout Flow Periods.

Recovered 330 ft. of Watery Muck Chlorides 58,000 PPM  
Recovered — ft. of  
Recovered — ft. of  
Recovered — ft. of  
Recovered — ft. of



Remarks:

Arrived 9:00 P.M. 7-9-80 Departed 4:00 A.M. 7-10-80

Time Set Packer(s)	A.M. P.M.	Time Started Off Bottom	A.M. P.M.	Maximum Temperature
10:43		1:45		108
Initial Hydrostatic Pressure		(A) 1905	P.S.I.	
Initial Flow Period	Minutes	45	(B) 53	P.S.I. to (C) 115 P.S.I.
Initial Closed In Period	Minutes	45	(D) 772	P.S.I.
Final Flow Period	Minutes	45	(E) 138	P.S.I. to (F) 176 P.S.I.
Final Closed In Period	Minutes	45	(G) 772	P.S.I.
Final Hydrostatic Pressure		(H) 1905	P.S.I.	

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Jim Musgrove  
Signature of Customer or his authorized representative

Western Representative Chris Wanda Thank You  
Dennis Johnson

FIELD INVOICE

Open Hole Test	\$ 550 <sup>00</sup>
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$
Fluid Sampler	\$
Extra Charts	\$

TOTAL \$ 550<sup>00</sup>

WESTERN TESTING CO., INC.

Pressure Data

Date 7-10 Recorder No. 3474 Capacity 3000 Test Ticket No. 4270  
 Clock No. — Elevation 1907 KB Location 3348 Ft. Well Temperature 108 °F

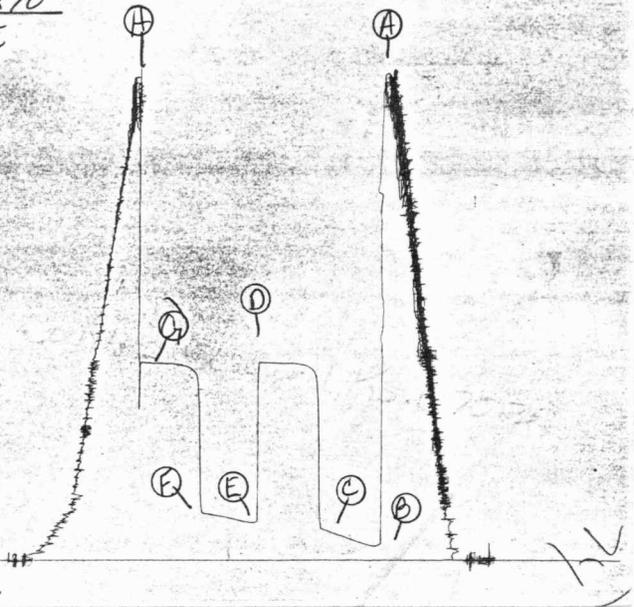
Point	Pressure	P.S.I.	Open Tool	Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>1905</u>	P.S.I.		<u>10:43 P</u>	
B. First Initial Flow Pressure	<u>63</u>	P.S.I.	First Flow Pressure	<u>45</u> Mins.	<u>45</u> Mins.
C. First Final Flow Pressure	<u>120</u>	P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D. Initial Closed-in Pressure	<u>773</u>	P.S.I.	Second Flow Pressure	<u>45</u> Mins.	<u>40</u> Mins.
E. Second Initial Flow Pressure	<u>154</u>	P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
F. Second Final Flow Pressure	<u>186</u>	P.S.I.			
G. Final Closed-in Pressure	<u>775</u>	P.S.I.			
H. Final Hydrostatic Mud	<u>1899</u>	P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure Breakdown:		Initial Shut-In Breakdown:		Second Flow Pressure Breakdown:		Final Shut-In Breakdown:	
	Press.	of mins. and a final inc. of Min.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>63</u>	<u>15</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	0	<u>120</u>	0	<u>154</u>	0	<u>186</u>
P 2	<u>55</u>		3	<u>671</u>	5	<u>147</u>	3	<u>476</u>
P 3	<u>61</u>		6	<u>744</u>	10	<u>152</u>	6	<u>733</u>
P 4	<u>68</u>		9	<u>757</u>	15	<u>159</u>	9	<u>750</u>
P 5	<u>77</u>		12	<u>764</u>	20	<u>165</u>	12	<u>758</u>
P 6	<u>88</u>		15	<u>766</u>	25	<u>173</u>	15	<u>763</u>
P 7	<u>97</u>		18	<u>770</u>	30	<u>176</u>	18	<u>767</u>
P 8	<u>105</u>		21	<u>771</u>	35	<u>182</u>	21	<u>770</u>
P 9	<u>115</u>		24	<u>771</u>	40	<u>186</u>	24	<u>771</u>
P 10	<u>120</u>		27	<u>771</u>	45		27	<u>771</u>
P 11			30	<u>772</u>	50		30	<u>772</u>
P 12			33	<u>772</u>	55		33	<u>772</u>
P 13			36	<u>772</u>	60		36	<u>773</u>
P 14			39	<u>773</u>	65		39	<u>774</u>
P 15			42	<u>773</u>	70		42	<u>775</u>
P 16			45	<u>773</u>	75		45	<u>775</u>
P 17			48		80		48	
P 18			51		85		51	
P 19			54		90		54	
P 20			57				57	
			60				60	

TK# 4270

I



Company Petroleum Energy, Inc. Lease & Well No. Hoffman #1  
 Elevation 1907 Kelly Bushing Formation Arbuckle Effective Pay ----- Ft. Ticket No. 4270  
 Date 7/10/80 Sec. 13 Twp. 16S Range 12W County Barton State Kansas  
 Test Approved by Jim Musgrove Western Representative Dennis Wondra-Dennis Johnson

Formation Test No. 3 Interval Tested from 3328' ft. to 3390 ft. Total Depth 3390' ft.  
 Packer Depth 3323 ft. Size 6 3/4 in. Packer Depth 3328 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) 3348 ft. Recorder Number 3474 Cap. 3000  
 Bottom Recorder Depth (Outside) 3351 ft. Recorder Number 3659 Cap. 4000  
 Below Straddle Recorder Depth - ft. Recorder Number -- Cap. -

Drilling Contractor White & Ellis Drilling Rig #2 Drill Collar Length 300 I. D. 2.7 in.  
 Mud Type starch Viscosity 40 Weight Pipe Length - I. D. - in.  
 Weight 10.2 Water Loss 15.8 cc. Drill Pipe Length 3006 I. D. 3.8 in.  
 Chlorides 80,000 P.P.M. Test Tool Length 22 ft. Tool Size 5 1/2 OD in.  
 Jars: Make -- Serial Number - Anchor Length 62 ft. Size 5 1/2 OD in.  
 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: Steady two inch blow throughout flow periods.

Recovered 330 ft. of watery mud Chlorides 58,000 ppm  
 Recovered        ft. of         
 Recovered        ft. of         
 Recovered        ft. of         
 Recovered        ft. of       

Remarks:       

Time Set Packer(s) 10:43 ~~A.M.~~ P.M. Time Started Off Bottom 1:45 ~~A.M.~~ P.M. Maximum Temperature 108°  
 Initial Hydrostatic Pressure (A) 1905 P.S.I.  
 Initial Flow Period Minutes 45 (B) 63 P.S.I. to (C) 120 P.S.I.  
 Initial Closed In Period Minutes 45 (D) 773 P.S.I.  
 Final Flow Period Minutes 40 (E) 154 P.S.I. to (F) 186 P.S.I.  
 Final Closed In Period Minutes 45 (G) 775 P.S.I.  
 Final Hydrostatic Pressure (H) 1899 P.S.I.

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 7-10-80

Recorder No. 3474

Capacity 3000

Test Ticket No. 4270

Location 3348 Ft.

Clock No. -- Elevation 1907 Kelly Bushing

Well Temperature 108 °F

Point	Pressure			Time Given	Time Computed
A Initial Hydrostatic Mud	1905	P.S.I.	Open Tool	10:43 P.M.	
B First Initial Flow Pressure	63	P.S.I.	First Flow Pressure	45 Mins.	45 Mins.
C First Final Flow Pressure	120	P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D Initial Closed-in Pressure	773	P.S.I.	Second Flow Pressure	45 Mins.	40 Mins.
E Second Initial Flow Pressure	154	P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F Second Final Flow Pressure	186	P.S.I.			
G Final Closed-in Pressure	775	P.S.I.			
H Final Hydrostatic Mud	1899	P.S.I.			

**PRESSURE BREAKDOWN**

**First Flow Pressure**  
Breakdown: 15 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: 8 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

**Final Shut-In**  
Breakdown: 15 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	63	0	120	0	154	0	186
P 2 5	55	3	671	5	147	3	476
P 3 10	61	6	744	10	152	6	733
P 4 15	68	9	757	15	159	9	750
P 5 20	77	12	764	20	165	12	758
P 6 25	88	15	766	25	173	15	763
P 7 30	97	18	770	30	176	18	767
P 8 35	105	21	771	35	182	21	770
P 9 40	115	24	771	40	186	24	771
P10 45	120	27	771			27	771
P11		30	772			30	772
P12		33	772			33	772
P13		36	772			36	773
P14		39	773			39	774
P15		42	773			42	775
P16		45	773			45	775
P17							
P18							
P19							
P20							