



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

WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 6410

Elevation 1807 G.L. Formation Arbuckle Eff. Pay Ft.

District St. Bend Date 7-19-80 Customer Order No.
COMPANY NAME P. U. Properties Inc.
ADDRESS 360 Sutton Place Wichita, Ks. 67207
LEASE AND WELL NO. Phelan #2 COUNTY Edwards STATE Ks. Sec. 12 Twp. 17S Rge. 10W
Mail Invoice To Same Co. Name Same Address No. Copies Requested 5
Mail Charts To Same Address No. Copies Requested 5

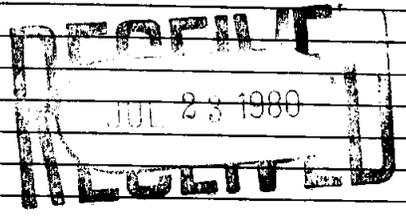
Formation Test No. 1 Interval Tested from 3229 ft. to 3261 ft. Total Depth 3261 ft.
Packer Depth 3229 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3224 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 3241 ft. Recorder Number 6234 Cap. 4500
Bottom Recorder Depth (Outside) 3245 ft. Recorder Number 4339 Cap. 4300
Below Straddle Recorder Depth ft. Recorder Number Cap.
Drilling Contractor DeMac #1 Drill Collar Length 419 I. D. 2.2 in.
Mud Type Viscosity 45 Weight Pipe Length I. D. in.
Weight 9.6 Water Loss 10.8 cc. Drill Pipe Length 2789 I. D. 3.8 in.
Chlorides P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 in.
Jars: Make No Serial Number No Anchor Length 32 ft. Size 5 1/2 in.
Did Well Flow? No Reversed Out No Surface Choke Size 7/8 in. Bottom Choke Size 1/2 in.
Main Hole Size 7/8 in. Tool Joint Size 4 1/2 X in.

Blow: IF - Weak blow decreasing throughout flow
FF - No blow - flushed tool no help

Recovered 10 ft. of Dry Mud
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of

Remarks: Arrived - 6:00 A.M. 7-19-80
Left - 2:30 P.M. 7-19-80



Time Set Packer(s)	<u>10.05</u> P.M.	Time Started Off Bottom	<u>12:05 AM</u>	Maximum Temperature	<u>105°</u>
Initial Hydrostatic Pressure		(A)	<u>1690</u> P.S.I.		
Initial Flow Period	Minutes <u>30</u>	(B)	<u>34</u> P.S.I.	to (C)	<u>34</u> P.S.I.
Initial Closed In Period	Minutes <u>30</u>	(D)	<u>206</u> P.S.I.		
Final Flow Period	Minutes <u>30</u>	(E)	<u>45</u> P.S.I.	to (F)	<u>45</u> P.S.I.
Final Closed In Period	Minutes <u>30</u>	(G)	<u>206</u> P.S.I.		
Final Hydrostatic Pressure		(H)	<u>1678</u> 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 Signature of Customer or his authorized representative
Western Representative Dan Delaney

FIELD INVOICE

Open Hole Test	<u>550.00</u>
Misrun	\$ <u> </u>
Straddle Test	\$ <u> </u>
Jars	\$ <u> </u>
Selective Zone	\$ <u> </u>
Safety Joint	\$ <u> </u>
Standby	\$ <u> </u>
Evaluation	\$ <u> </u>
Extra Packer	\$ <u> </u>
Circ. Sub.	\$ <u> </u>
Mileage <u>30 miles</u>	\$ <u> </u>
Fluid Sampler	\$ <u> </u>
Extra Charts	\$ <u> </u>
TOTAL	\$ <u> </u>

WESTERN TESTING CO., INC.
Pressure Data

Date 7-19-80 Test Ticket No. 6410
 Recorder No. 6234 Capacity 4500 Location 3241 Ft.
 Clock No. _____ Elevation 1807 G.H. Well Temperature 105 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1701</u> P.S.I.	Open Tool	<u>10:05 AM</u>	
B First Initial Flow Pressure	<u>50</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>45</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>213</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>59</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>50</u> P.S.I.			
G Final Closed-in Pressure	<u>215</u> P.S.I.			
H Final Hydrostatic Mud	<u>1690</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.

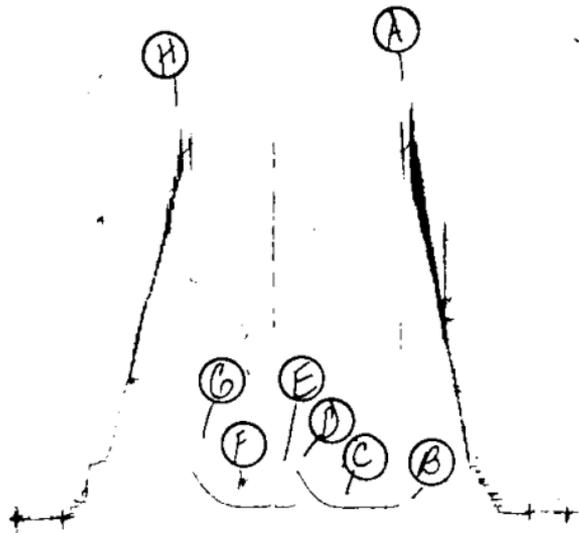
Second Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 10 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>50</u>	<u>0</u>	<u>45</u>	<u>0</u>	<u>59</u>	<u>0</u>	<u>50</u>
P 2 <u>5</u>	<u>45</u>	<u>3</u>	<u>45</u>	<u>5</u>	<u>50</u>	<u>3</u>	<u>50</u>
P 3 <u>10</u>		<u>6</u>	<u>50</u>	<u>10</u>	<u>50</u>	<u>6</u>	<u>55</u>
P 4 <u>15</u>		<u>9</u>	<u>52</u>	<u>15</u>	<u>55</u> <i>Flushed Tool</i>	<u>9</u>	<u>59</u>
P 5 <u>20</u>		<u>12</u>	<u>64</u>	<u>20</u>	<u>50</u>	<u>12</u>	<u>68</u>
P 6 <u>25</u>		<u>15</u>	<u>80</u>	<u>25</u>	<u>50</u>	<u>15</u>	<u>80</u>
P 7 <u>30</u>	<u>45</u>	<u>18</u>	<u>100</u>	<u>30</u>	<u>50</u>	<u>18</u>	<u>100</u>
P 8 <u>35</u>		<u>21</u>	<u>128</u>	<u>35</u>		<u>21</u>	<u>123</u>
P 9 <u>40</u>		<u>24</u>	<u>167</u>	<u>40</u>		<u>24</u>	<u>153</u>
P10 <u>45</u>		<u>27</u>	<u>194</u>	<u>45</u>		<u>27</u>	<u>183</u>
P11 <u>50</u>		<u>30</u>	<u>213</u>	<u>50</u>		<u>30</u>	<u>215</u>
P12 <u>55</u>		<u>33</u>		<u>55</u>		<u>33</u>	
P13 <u>60</u>		<u>36</u>		<u>60</u>		<u>36</u>	
P14 _____		<u>39</u>		<u>65</u>		<u>39</u>	
P15 _____		<u>42</u>		<u>70</u>		<u>42</u>	
P16 _____		<u>45</u>		<u>75</u>		<u>45</u>	
P17 _____		<u>48</u>		<u>80</u>		<u>48</u>	
P18 _____		<u>51</u>		<u>85</u>		<u>51</u>	
P19 _____		<u>54</u>		<u>90</u>		<u>54</u>	
P20 _____		<u>57</u>				<u>57</u>	
		<u>60</u>				<u>60</u>	

TK # 6410

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Company P. V. Properties, Inc. Lease & Well No. Phelan #2
 Elevation 1807 Ground Level Formation Arbuckle Effective Pay ----- Ft. Ticket No. 6410
 Date 7-19-80 Sec. 12 Twp. 17 S Range 10 W County Ellsworth State KS
 Test Approved by Brad Hutchison Western Representative Dan Delaney

Formation Test No. 1 Interval Tested from 3229 ft. to 3261 ft. Total Depth 3261 ft.
 Packer Depth 3229 ft. Size 6 3/4 in. Packer Depth ----- ft. Size --- in.
 Packer Depth 3224 ft. Size 6 3/4 in. Packer Depth ----- ft. Size ----- in.
 Depth of Selective Zone Set -----

Top Recorder Depth (Inside) 3241 ft. Recorder Number 6234 Cap. 4500
 Bottom Recorder Depth (Outside) 3245 ft. Recorder Number 4339 Cap. 4300
 Below Straddle Recorder Depth ----- ft. Recorder Number ----- Cap. -----

Drilling Contractor DaMac #1 Drill Collar Length 419 I. D. 2.2 in.
 Mud Type Premix-Starch Viscosity 45 Weight Pipe Length ----- I. D. ----- in.
 Weight 9.6 Water Loss 10.8 cc. Drill Pipe Length 2789 I. D. 3.8 in.
 Chlorides ----- P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 in.
 Jars: Make NO Serial Number NO Anchor Length 32 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 X in.

Blow: Initial Flow; Weak blow decreasing throughout flow.
Final flow; No blow, Flushed tool, No help.

Recovered 10 ft. of Drilling mud.
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 10:05 ~~AM.~~ ^{AM.} Time Started Off Bottom 12:05 ~~AM.~~ ^{PM.} Maximum Temperature 105° F.
 Initial Hydrostatic Pressure (A) 1701 P.S.I.
 Initial Flow Period Minutes 30 (B) 50 P.S.I. to (C) 45 P.S.I.
 Initial Closed In Period Minutes 30 (D) 213 P.S.I.
 Final Flow Period Minutes 30 (E) 59 P.S.I. to (F) 50 P.S.I.
 Final Closed In Period Minutes 30 (G) 215 P.S.I.
 Final Hydrostatic Pressure (H) 1690 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 7-19-80 Test Ticket No. 6410
 Recorder No. 6234 Capacity 4500 Location 3241 Ft.
 Clock No. -- Elevation 1807 Ground Level Well Temperature 105 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1701</u> P.S.I.	Open Tool	<u>10:05 A.</u> M	
B First Initial Flow Pressure	<u>50</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>45</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>213</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>59</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>50</u> P.S.I.			
G Final Closed-in Pressure	<u>215</u> P.S.I.			
H Final Hydrostatic Mud	<u>1690</u> 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 <u>0</u>	<u>50</u>	<u>0</u>	<u>45</u>	<u>0</u>	<u>59</u>	<u>0</u>	<u>50</u>
P 2 <u>5</u>	<u>45</u>	<u>3</u>	<u>45</u>	<u>5</u>	<u>50</u>	<u>3</u>	<u>50</u>
P 3 <u>10</u>	<u>45</u>	<u>6</u>	<u>50</u>	<u>10</u>	<u>50</u>	<u>6</u>	<u>55</u>
P 4 <u>15</u>	<u>45</u>	<u>9</u>	<u>52</u>	<u>15</u>	<u>55</u> Flushed Tool	<u>9</u>	<u>59</u>
P 5 <u>20</u>	<u>45</u>	<u>12</u>	<u>64</u>	<u>20</u>	<u>50</u>	<u>12</u>	<u>68</u>
P 6 <u>25</u>	<u>45</u>	<u>15</u>	<u>80</u>	<u>25</u>	<u>50</u>	<u>15</u>	<u>80</u>
P 7 <u>30</u>	<u>45</u>	<u>18</u>	<u>100</u>	<u>30</u>	<u>50</u>	<u>18</u>	<u>100</u>
P 8		<u>21</u>	<u>128</u>			<u>21</u>	<u>123</u>
P 9		<u>24</u>	<u>167</u>			<u>24</u>	<u>153</u>
P10		<u>27</u>	<u>194</u>			<u>27</u>	<u>183</u>
P11		<u>30</u>	<u>213</u>			<u>30</u>	<u>215</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO 6411

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

Elevation 1807 G.h. Formation Arbuckle Eff. Pay Ft.

District Jt. Band Date 7-20-80 Customer Order No.

COMPANY NAME P.H. Properties, Inc.
ADDRESS 360 Sutton Place Wichita, Ks. 67202

LEASE AND WELL NO. Phelan #2 COUNTY Ellsworth STATE Ks Sec. 12 Twp. 17S Rge. 10W

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

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 2 Interval Tested from 3260 ft. to 3275 ft. Total Depth 3275 ft.
Packer Depth 3260 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3255 ft. Size 6 3/4 in. Packer Depth ft. Size in.

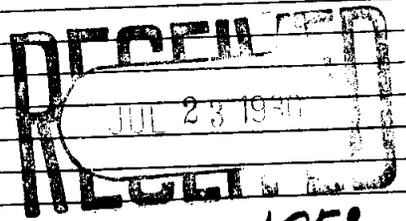
Depth of Selective Zone Set
Top Recorder Depth (Inside) 3266 ft. Recorder Number 6234 Cap. 4500
Bottom Recorder Depth (Outside) 3270 ft. Recorder Number 4339 Cap. 4300
Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor DeMac #1
Mud Type Premium Sand Viscosity 43
Weight 9.6 Water Loss 15.8 cc.
Chlorides 40,000 P.P.M.
Jars: Make Serial Number
Did Well Flow? Reversed Out

Drill Collar Length 419 I. D. 2.2 in.
Weight Pipe Length I. D. in.
Drill Pipe Length 2820 I. D. 3.8 in.
Test Tool Length 21 ft. Tool Size 4 1/2 in.
Anchor Length 15 ft. Size 5 1/2 in.
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 X in.

Blow: IF - Weak Blow - Died in 24 Min.
FF - No Blow - Fluid tool no help.
Recovered 10 ft. of Very Slightly Oil Specked Mud

Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of



Remarks: Arrived - 11:30 P.M. 7-19-80
Left - 5:30 A.M. 7-20-80

Time Set Packer(s)	<u>1:10</u> P.M.	Time Started Off Bottom	<u>3:10</u> P.M.	Maximum Temperature	<u>105°</u>
Initial Hydrostatic Pressure	<u>1701</u> P.S.I.	(A)	<u>45</u> P.S.I.	to (C)	<u>45</u> P.S.I.
Initial Flow Period	Minutes <u>30</u>	(B)	<u>594</u> P.S.I.	(D)	<u>45</u> P.S.I.
Initial Closed In Period	Minutes <u>30</u>	(E)	<u>45</u> P.S.I.	to (F)	<u>45</u> P.S.I.
Final Flow Period	Minutes <u>30</u>	(G)	<u>435</u> P.S.I.	(H)	<u>1690</u> P.S.I.
Final Closed In Period	Minutes <u>30</u>	(H)	<u>1690</u> P.S.I.		
Final Hydrostatic Pressure					

COMPANY TERMS

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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 Don Hutchins
Signature of Customer or his authorized representative

Western Representative Don Delaney

FIELD INVOICE

Open Hole Test	<u>550.00</u>
Misrun	\$ <u> </u>
Straddle Test	\$ <u> </u>
Jars	\$ <u> </u>
Selective Zone	\$ <u> </u>
Safety Joint	\$ <u> </u>
Standby	\$ <u> </u>
Evaluation	\$ <u> </u>
Extra Packer	\$ <u> </u>
Circ. Sub.	\$ <u> </u>
Mileage <u>3 miles</u>	<u>24.00</u>
Fluid Sampler	\$ <u> </u>
Extra Charts	\$ <u> </u>

TOTAL \$ 574.00

WESTERN TESTING CO., INC.

Pressure Data

Date 7-20-80 Test Ticket No. 6411
 Recorder No. 6234 Capacity 4500 Location 3266 Ft.
 Clock No. _____ Elevation 1807 Well Temperature 105 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1712</u>	P.S.I.	<u>1:10 A</u>	M
B First Initial Flow Pressure	<u>52</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
C First Final Flow Pressure	<u>44</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
D Initial Closed-in Pressure	<u>477</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
E Second Initial Flow Pressure	<u>55</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
F Second Final Flow Pressure	<u>45</u>	P.S.I.		
G Final Closed-in Pressure	<u>419</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1701</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.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1	<u>52</u>	0	<u>44</u>	0	<u>55</u>	0	<u>45</u>	0
P 2	<u>44</u>	5	<u>44</u>	3	<u>45</u>	5	<u>45</u>	3
P 3		10	<u>48</u>	6	<u>Fushed Tool</u>	10	<u>45</u>	6
P 4		15	<u>52</u>	9	<u>48</u>	15	<u>52</u>	9
P 5		20	<u>57</u>	12	<u>47</u>	20	<u>57</u>	12
P 6		25	<u>66</u>	15	<u>46</u>	25	<u>66</u>	15
P 7	<u>44</u>	30	<u>87</u>	18	<u>45</u>	30	<u>80</u>	18
P 8		35	<u>151</u>	21		35	<u>108</u>	21
P 9		40	<u>288</u>	24		40	<u>176</u>	24
P10		45	<u>415</u>	27		45	<u>295</u>	27
P11		50	<u>477</u>	30		50	<u>419</u>	30
P12		55		33		55		33
P13		60		36		60		36
P14				39		65		39
P15				42		70		42
P16				45		75		45
P17				48		80		48
P18				51		85		51
P19				54		90		54
P20				57				57
				60				60

Company P. V. Properties, Inc. Lease & Well No. Phelan #2
 Elevation 1807 Ground Level Formation Arbuckle Effective Pay ----- Ft. Ticket No. 6411
 Date 7-20-80 Sec. 12 Twp. 17 S Range 10 W County Ellsworth State KS
 Test Approved by Brad Hutchison Western Representative Dan Delaney

Formation Test No. 2 Interval Tested from 3260 ft. to 3275 ft. Total Depth 3275 ft.
 Packer Depth 3260 ft. Size 6 3/4 in. Packer Depth ----- ft. Size ----- in.
 Packer Depth 3255 ft. Size 6 3/4 in. Packer Depth ----- ft. Size ----- in.
 Depth of Selective Zone Set -----

Top Recorder Depth (Inside) 3266 ft. Recorder Number 6234 Cap. 4500
 Bottom Recorder Depth (Outside) 3270 ft. Recorder Number 4339 Cap. 4300
 Below Straddle Recorder Depth ----- ft. Recorder Number ----- Cap. -----

Drilling Contractor DaMac #1 Drill Collar Length 419 I. D. 2.2 in.
 Mud Type Premix-Starch Viscosity 43 Weight Pipe Length ----- I. D. ----- in.
 Weight 9.6 Water Loss 15.8 cc. Drill Pipe Length 2820 I. D. 3.8 in.
 Chlorides 40,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 in.
 Jars: Make ----- Serial Number ----- Anchor Length 15 ft. Size 5 1/2 in.
 Did Well Flow? ----- Reversed Out ----- 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 X in.

Blow: Initial Flow: Weak blow died in 24 minutes.
Final Flow: No blow, Flushed tool; no help.

Recovered 10 ft. of Very slightly oil specked mud.
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 1:10 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 3:10 ~~P.M.~~ ^{A.M.} Maximum Temperature 105⁰ F.
 Initial Hydrostatic Pressure (A) 1712 P.S.I.
 Initial Flow Period Minutes 30 (B) 52 P.S.I. to (C) 44 P.S.I.
 Initial Closed In Period Minutes 30 (D) 477 P.S.I.
 Final Flow Period Minutes 30 (E) 55 P.S.I. to (F) 45 P.S.I.
 Final Closed In Period Minutes 30 (G) 419 P.S.I.
 Final Hydrostatic Pressure (H) 1701 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 7-20-80 Test Ticket No. 6411
 Recorder No. 6234 Capacity 4500 Location 3266 Ft.
 Clock No. -- Elevation 1807 Ground Level Well Temperature 105 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1712	P.S.I.	1:10 A. M.	
B First Initial Flow Pressure	52	P.S.I.	30	30 Mins.
C First Final Flow Pressure	44	P.S.I.	30	30 Mins.
D Initial Closed-in Pressure	477	P.S.I.	30	30 Mins.
E Second Initial Flow Pressure	55	P.S.I.	30	30 Mins.
F Second Final Flow Pressure	45	P.S.I.		
G Final Closed-in Pressure	419	P.S.I.		
H Final Hydrostatic Mud	1701	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.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>52</u>	<u>0</u>	<u>44</u>	<u>0</u>	<u>55</u>	<u>0</u>	<u>45</u>
P 2 <u>5</u>	<u>44</u>	<u>3</u>	<u>44</u>	<u>5</u>	<u>45</u>	<u>3</u>	<u>45</u>
P 3 <u>10</u>	<u>44</u>	<u>6</u>	<u>48</u>	<u>10</u>	<u>Flushed Tool</u>	<u>6</u>	<u>45</u>
P 4 <u>15</u>	<u>44</u>	<u>9</u>	<u>52</u>	<u>15</u>	<u>48</u>	<u>9</u>	<u>52</u>
P 5 <u>20</u>	<u>44</u>	<u>12</u>	<u>57</u>	<u>20</u>	<u>47</u>	<u>12</u>	<u>57</u>
P 6 <u>25</u>	<u>44</u>	<u>15</u>	<u>66</u>	<u>25</u>	<u>46</u>	<u>15</u>	<u>66</u>
P 7 <u>30</u>	<u>44</u>	<u>18</u>	<u>87</u>	<u>30</u>	<u>45</u>	<u>18</u>	<u>80</u>
P 8		<u>21</u>	<u>151</u>			<u>21</u>	<u>108</u>
P 9		<u>24</u>	<u>288</u>			<u>24</u>	<u>176</u>
P10		<u>27</u>	<u>415</u>			<u>27</u>	<u>295</u>
P11		<u>30</u>	<u>477</u>			<u>30</u>	<u>419</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 6412

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

Elevation 1807 G.L. Formation Alvukle Eff. Pay Ft.

District Lt. Bend Date 7-20-80 Customer Order No.

COMPANY NAME P.V. Properties, Inc.

ADDRESS 360 Sutton Place Wichita, Ks. 67202

LEASE AND WELL NO. Phelan #2 COUNTY Ellsworth STATE KS Sec. 12 Twp. 17S Rge. 10W

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

Mail Charts To Same Co. Name Same Address No. Copies Requested 5

Formation Test No. 3 Interval Tested from 3276 ft. to 3287 ft. Total Depth 3287 ft.

Packer Depth 3276 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 3271 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3278 ft. Recorder Number 6234 Cap. 4500

Bottom Recorder Depth (Outside) 3282 ft. Recorder Number 4339 Cap. 4300

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Da Mae #1 Drill Collar Length 419 I. D. 2.2 in.

Mud Type PLOMAN-STARK Viscosity 42 Weight Pipe Length I. D. in.

Weight 9.8 Water Loss 18.0 cc. Drill Pipe Length 2836 I. D. 3.8 in.

Chlorides 47,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 in.

Jars: Make Serial Number Anchor Length 11 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 X in.

Blow: FF - Strong Blow
FF - Strong Blow

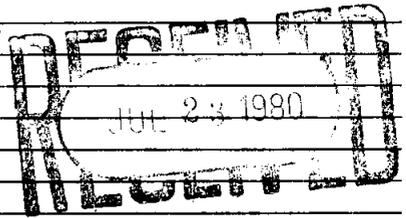
Recovered ft. of Packer failure & Tool Plugged

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Shut tool 4' to Bottom
Arrived - 11:35 A.M. - 7-20-80
Left - 2:30 P.M. - 7-20-80



Time Set Packer(s) 1:25 AM Time Started Off Bottom 4:25 PM Maximum Temperature

Initial Hydrostatic Pressure (A) 1751 P.S.I.

Initial Flow Period 45 Minutes (B) P.S.I. to (C) P.S.I.

Initial Closed In Period 45 Minutes (D) P.S.I.

Final Flow Period 45 Minutes (E) P.S.I. to (F) P.S.I.

Final Closed In Period 45 Minutes (G) P.S.I.

Final Hydrostatic Pressure (H) 1712 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 Brad Hutchins
Signature of Customer or his authorized representative

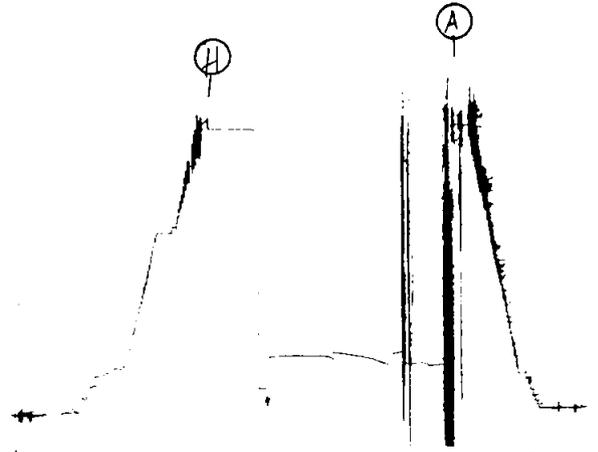
Western Representative Don Delaney

FIELD INVOICE

- Open Hole Test
- Misrun
- Straddle Test
- Jars
- Selective Zone
- Safety Joint
- Standby
- Evaluation
- Extra Packer
- Circ. Sub.
- Mileage 32 X 75 24.00
- Fluid Sampler
- Extra Charts

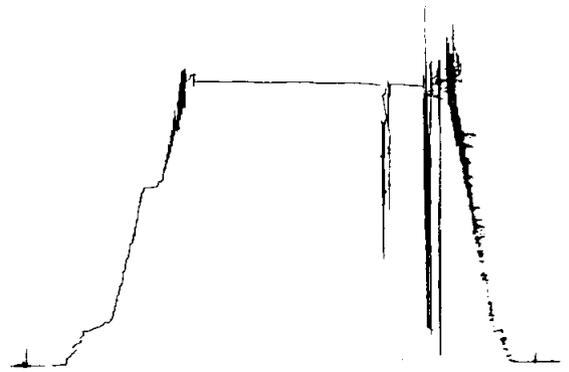
TOTAL \$ 24.00

IR # 6412
I



4339

IR # 6412
O



Company P. V. Properties, Inc. Lease & Well No. Phelan#2
 Elevation 1807 Ground Level Formation Arbuckle Effective Pay ----- Ft. Ticket No. 6412
 Date 7/20/80 Sec. 12 Twp. 17S Range 10W County Ellsworth State Kansas
 Test Approved by Brad Hutchison Western Representative Dan Delaney

Formation Test No. 3 Interval Tested from 3276 ft. to 3287 ft. Total Depth 3287 ft.
 Packer Depth 3276 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3271 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3278 ft. Recorder Number 6234 Cap. 4500
 Bottom Recorder Depth (Outside) 3282 ft. Recorder Number 4339 Cap. 4300
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor DaMac Drilling Rig #1 Drill Collar Length 419 I. D. 2.2 in.
 Mud Type premix-starch Viscosity 42 Weight Pipe Length - I. D. - in.
 Weight 9.8 Water Loss 18.0 cc. Drill Pipe Length 2836 I. D. 3.8 in.
 Chlorides 47,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 in.
 Jars: Make -- Serial Number -- Anchor Length 11 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 XH in.

Blow: Initial flow strong blow.
Final flow strong blow

Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of PACKER FAILURE AND TOOL PLUGGED

Remarks: SLID TOOL FOUR FEET TO BOTTOM.

Time Set Packer(s) 1:25 ~~A.M.~~ P.M. Time Started Off Bottom 4:25 ~~A.M.~~ P.M. Maximum Temperature ?
 Initial Hydrostatic Pressure (A) 1751 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) 1712 P.S.I.



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 6413

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

Elevation 1807 G.L. Formation Arbuckle Eff. Pay 9K Ft.

District Lt. Bend Date 7-21-80 Customer Order No. _____

COMPANY NAME P.V. Properties, Inc.
ADDRESS 360 Sutton Place Wichita, KS, 67202

LEASE AND WELL NO. Phelan #2 COUNTY Ellsworth STATE KS Sec. 12 Twp 17S Rge 19W

Mail Invoice To Same Co. Name Same Address _____ No. Copies Requested 5

Mail Charts To Same Address _____ No. Copies Requested 5

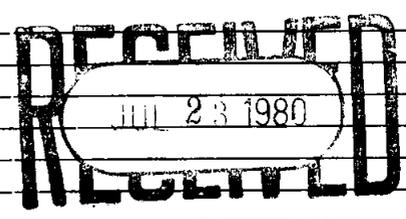
Formation Test No. 4 Interval Tested from 3261 ft. to 3289 ft. Total Depth 3289 ft.
Packer Depth 3261 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Packer Depth 3256 ft. Size 6 1/4 in. Packer Depth _____ ft. Size _____ in.

Top Recorder Depth (Inside) 3274 ft. Recorder Number 6234 Cap. 4500
Bottom Recorder Depth (Outside) 3278 ft. Recorder Number 4339 Cap. 4300
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____

Drilling Contractor DeMag #1 Drill Collar Length 419 I. D. 2.2 in.
Mud Type Premix-Stand Viscosity 40 Weight Pipe Length _____ I. D. _____ in.
Weight 9.8 Water Loss 18.8 cc. Drill Pipe Length 2821 I. D. 3.8 in.
Chlorides 47000 P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 in.
Jars: Make _____ Serial Number _____ Anchor Length 28 ft. Size 5 1/2 in.
Did Well Flow? _____ Reversed Out _____ 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 x 1 1/2 in.

Blow: FF - Weak Blow Buildings to a Fair Blow
FF - Fair Blow Throughout

Recovered 125 ft. of Heavy oil & Gas Cut Mud
Recovered 120 ft. of Free Oil
Recovered _____ ft. of Free Oil on top of tool.
Recovered _____ ft. of _____
Recovered _____ ft. of _____



Remarks: Arrived - 10:00 P.M. 7-20-80
Left - 11:00 A.M. 7-21-80

Time Set Packer(s) <u>3:05</u> <u>A.M.</u>	Time Started Off Bottom <u>6:05</u> <u>A.M.</u>	Maximum Temperature <u>111°</u>
Initial Hydrostatic Pressure (A) <u>1712</u> P.S.I.	Initial Flow Period (B) <u>45</u> Minutes	Initial Closed In Period (C) <u>68</u> P.S.I.
Final Flow Period (D) <u>45</u> Minutes	Final Closed In Period (E) <u>45</u> Minutes	Final Hydrostatic Pressure (F) <u>126</u> P.S.I.
Final Hydrostatic Pressure (G) <u>1045</u> P.S.I.	Final Hydrostatic Pressure (H) <u>1701</u> 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 Brad Hutchison
Signature of Customer or his authorized representative

Western Representative Dan Delaney

FIELD INVOICE

Open Hole Test	<u>550.00</u>
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage <u>32 x .75</u>	<u>24.00</u>
Fluid Sampler	\$
Extra Charts	\$

TOTAL \$ 574.00

WESTERN TESTING CO., INC.

Pressure Data

Date 7-21-80 Test Ticket No. 6413
 Recorder No. 6234 Capacity 4500 Location 3274 Ft.
 Clock No. _____ Elevation 1807 G.L. Well Temperature 111 °F

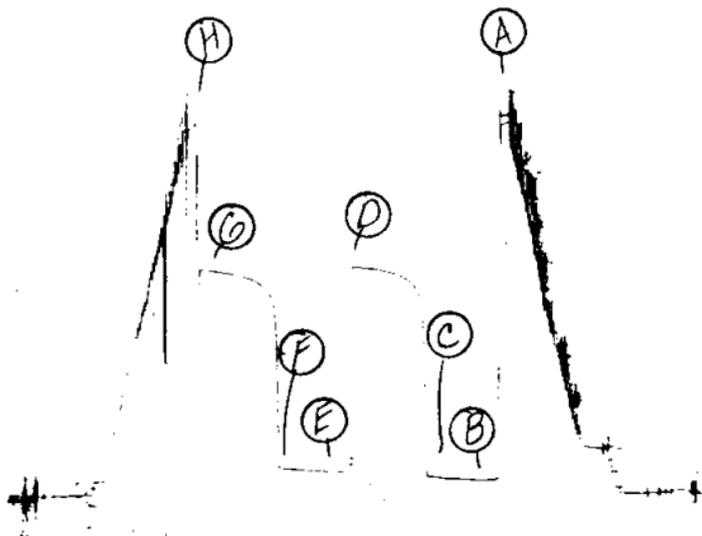
Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1712</u> P.S.I.	<u>3:05A</u> M	
B First Initial Flow Pressure	<u>75</u> P.S.I.	<u>45</u> Mins	<u>45</u> Mins
C First Final Flow Pressure	<u>91</u> P.S.I.	<u>45</u> Mins	<u>45</u> Mins
D Initial Closed-in Pressure	<u>1056</u> P.S.I.	<u>45</u> Mins	<u>40</u> Mins
E Second Initial Flow Pressure	<u>119</u> P.S.I.	<u>45</u> Mins	<u>48</u> Mins
F Second Final Flow Pressure	<u>137</u> P.S.I.		
G Final Closed-in Pressure	<u>1046</u> P.S.I.		
H Final Hydrostatic Mud	<u>1701</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: 9 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: 16 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>75</u>	0	<u>91</u>	0	<u>119</u>	0	<u>137</u>
P 2	<u>73</u>	3	<u>799</u>	5	<u>114</u>	3	<u>840</u>
P 3	<u>73</u>	6	<u>932</u>	10	<u>115</u>	6	<u>930</u>
P 4	<u>74</u>	9	<u>972</u>	15	<u>117</u>	9	<u>961</u>
P 5	<u>76</u>	12	<u>995</u>	20	<u>121</u>	12	<u>981</u>
P 6	<u>80</u>	15	<u>1006</u>	25	<u>123</u>	15	<u>997</u>
P 7	<u>80</u>	18	<u>1020</u>	30	<u>128</u>	18	<u>1006</u>
P 8	<u>87</u>	21	<u>1029</u>	35	<u>133</u>	21	<u>1013</u>
P 9	<u>89</u>	24	<u>1036</u>	40	<u>137</u>	24	<u>1022</u>
P10	<u>91</u>	27	<u>1040</u>	45		27	<u>1027</u>
P11		30	1040 <u>1045</u>	50		30	<u>1031</u>
P12		33	<u>1049</u>	55		33	<u>1036</u>
P13		36	<u>1052</u>	60		36	<u>1038</u>
P14		39	<u>1054</u>	65		39	<u>1040</u>
P15		42	<u>1055</u>	70		42	<u>1042</u>
P16		45	<u>1056</u>	75		45	<u>1045</u>
P17		48		80		48	<u>1046</u>
P18		51		85		51	
P19		54		90		54	
P20		57				57	
		60				60	

TR# 6413
I



Company P. V. Properties, Inc. Lease & Well No. Phelan #2
 Elevation 1807 Ground Level Formation Arbuckle Effective Pay ----- Ft. Ticket No. 6413
 Date 7-21-80 Sec. 12 Twp. 17 S Range 10 W County Ellsworth State KS

Test Approved by Brad Hutchison Western Representative Dan Delaney

Formation Test No. 4 Interval Tested from 3261 ft. to 3289 ft. Total Depth 3289 ft.
 Packer Depth 3261 ft. Size 6 3/4 in. Packer Depth --- ft. Size --- in.
 Packer Depth 3256 ft. Size 6 3/4 in. Packer Depth --- ft. Size --- in.

Depth of Selective Zone Set -----
 Top Recorder Depth (Inside) 3274 ft. Recorder Number 6234 Cap. 4500
 Bottom Recorder Depth (Outside) 3278 ft. Recorder Number 4339 Cap. 4300
 Flow Straddle Recorder Depth ----- ft. Recorder Number --- Cap. -----

Drilling Contractor DaMac # 1 Drill Collar Length 419 I. D. 2.2 in.
 Mud Type Premix-Starch Viscosity 40 Weight Pipe Length ----- I. D. ----- in.
 Weight 9.8 Water Loss 18.8 cc. Drill Pipe Length 2821 I. D. 3.8 in.
 Chlorides 47,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 1/2 in.
 Tools: Make --- Serial Number --- Anchor Length 28 ft. Size 5 1/2 in.
 Did Well Flow? ----- Reversed Out ----- Surface Choke Size 1/2 in. Bottom Choke Size 1/2 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 3/8 X in.

Flow: Initial Flow: Weak blow building to a fair blow.
Final flow: Fair blow throughout.

Recovered 125 ft. of Heavy oil and gas cut mud.
 Recovered 120 ft. of Frothy oil.
 Recovered ft. of Free oil on top of tool.
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 3:05 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 6:05 ~~P.M.~~ ^{P.M.} Maximum Temperature 111° F.
 Initial Hydrostatic Pressure (A) 1712 P.S.I.
 Initial Flow Period Minutes 45 (B) 75 P.S.I. to (C) 91 P.S.I.
 Initial Closed In Period Minutes 45 (D) 1056 P.S.I.
 Final Flow Period Minutes 40 (E) 119 P.S.I. to (F) 137 P.S.I.
 Final Closed In Period Minutes 48 (G) 1046 P.S.I.
 Final Hydrostatic Pressure (H) 1701 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 7-21-80 Test Ticket No. 6413
 Recorder No. 6234 Capacity 4500 Location 3274 Ft.
 Clock No. -- Elevation 1807 Ground Level Well Temperature 111 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1712</u> P.S.I.	Open Tool	<u>3:05</u> A. M.	
B First Initial Flow Pressure	<u>75</u> P.S.I.	First Flow Pressure	<u>45</u> Mins.	<u>45</u> Mins.
C First Final Flow Pressure	<u>91</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1056</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins.	<u>40</u> Mins.
E Second Initial Flow Pressure	<u>119</u> P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>48</u> Mins.
F Second Final Flow Pressure	<u>137</u> P.S.I.			
G Final Closed-in Pressure	<u>1046</u> P.S.I.			
H Final Hydrostatic Mud	<u>1701</u> P.S.I.			

PRESSURE BREAKDOWN

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>15</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>8</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>16</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>75</u>	<u>0</u>	<u>91</u>	<u>0</u>	<u>119</u>	<u>0</u>	<u>137</u>
P 2 <u>5</u>	<u>73</u>	<u>3</u>	<u>799</u>	<u>5</u>	<u>114</u>	<u>3</u>	<u>840</u>
P 3 <u>10</u>	<u>73</u>	<u>6</u>	<u>932</u>	<u>10</u>	<u>115</u>	<u>6</u>	<u>930</u>
P 4 <u>15</u>	<u>74</u>	<u>9</u>	<u>972</u>	<u>15</u>	<u>117</u>	<u>9</u>	<u>961</u>
P 5 <u>20</u>	<u>76</u>	<u>12</u>	<u>995</u>	<u>20</u>	<u>121</u>	<u>12</u>	<u>981</u>
P 6 <u>25</u>	<u>80</u>	<u>15</u>	<u>1006</u>	<u>25</u>	<u>123</u>	<u>15</u>	<u>997</u>
P 7 <u>30</u>	<u>80</u>	<u>18</u>	<u>1020</u>	<u>30</u>	<u>128</u>	<u>18</u>	<u>1006</u>
P 8 <u>35</u>	<u>87</u>	<u>21</u>	<u>1029</u>	<u>35</u>	<u>133</u>	<u>21</u>	<u>1013</u>
P 9 <u>40</u>	<u>89</u>	<u>24</u>	<u>1036</u>	<u>40</u>	<u>137</u>	<u>24</u>	<u>1022</u>
P10 <u>45</u>	<u>91</u>	<u>27</u>	<u>1040</u>			<u>27</u>	<u>1027</u>
P11		<u>30</u>	<u>1045</u>			<u>30</u>	<u>1031</u>
P12		<u>33</u>	<u>1049</u>			<u>33</u>	<u>1036</u>
P13		<u>36</u>	<u>1052</u>			<u>36</u>	<u>1038</u>
P14		<u>39</u>	<u>1054</u>			<u>39</u>	<u>1040</u>
P15		<u>42</u>	<u>1055</u>			<u>42</u>	<u>1042</u>
P16		<u>45</u>	<u>1056</u>			<u>45</u>	<u>1045</u>
P17						<u>48</u>	<u>1046</u>
P18							
P19							
P20							