



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 5538

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

Elevation _____ Formation VIOLA Eff. Pay _____ Ft.

District Great Bend Date 5-5-80 Customer Order No. _____

COMPANY NAME Pendleton Land & Exploration INC

ADDRESS 1410 Security Life Bldg Denver Colo. 80202

LEASE AND WELL NO. #1 HARRIGAN COUNTY Wabaunsee STATE KS Sec. _____ Twp. _____ Rge. _____

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

Mail Charts To _____ Address _____ No. Copies Requested _____

Formation Test No. _____ Interval Tested from _____ ft. to _____ ft. Total Depth 3250 ft.
Packer Depth _____ ft. Size _____ in. Packer Depth _____ ft. Size _____ in.
Packer Depth _____ ft. Size _____ in. Packer Depth _____ ft. Size _____ in.
Depth of Selective Zone Set _____

Top Recorder Depth (Inside) _____ ft. Recorder Number _____ Cap. _____
Bottom Recorder Depth (Outside) _____ ft. Recorder Number _____ Cap. _____
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____

Drilling Contractor Eddco RIG #6 Drill Collar Length _____ I. D. _____ in.
Mud Type _____ Viscosity _____ Weight Pipe Length _____ I. D. _____ in.
Weight _____ Water Loss _____ cc. Drill Pipe Length _____ I. D. _____ in.
Chlorides _____ P.P.M. Test Tool Length _____ ft. Tool Size _____ in.
Jars: Make _____ Serial Number _____ Anchor Length _____ ft. Size _____ in.
Did Well Flow? _____ Reversed Out _____ Surface Choke Size _____ in. Bottom Choke Size _____ in.
Main Hole Size _____ in. Tool Joint Size _____ in.

Blow: _____

Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of they decided NOT TO TEST
Recovered _____ ft. of Drive 91 miles Round Trip
Recovered _____ ft. of _____

Remarks: Leave shop at 2:00 called back at 3:15 P.M.

Time Set	Packer(s)	A.M.	P.M.	Time Started Off Bottom	A.M.	P.M.	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.

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.

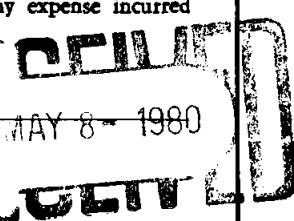
Terry Hand

Test Approved By _____ Signature of Customer or his authorized representative MAY 8 - 1980

Western Representative Roger Lisenby

FIELD INVOICE

Open Hole Test	\$ _____
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ _____
Selective Zone	\$ _____
Safety Joint	\$ _____
Standby	\$ <u>300.00</u>
Evaluation	\$ _____
Extra Packer	\$ _____
Circ. Sub.	\$ _____
Mileage <u>45 miles</u>	\$ <u>33.75</u>
Fluid Sampler <u>x75¢</u>	\$ _____
Extra Charts	\$ _____
TOTAL	\$ <u>333.75</u>





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 5197

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

Elevation 1375 K.B. Formation Viola Eff. Pay — Ft.

District Great Bend, Ks Date 5-6-80 Customer Order No. OR
COMPANY NAME Pendleton Land & Exploration Inc.
ADDRESS 1700 Security Life Bldg., Denver, Colo., 80202 OK
LEASE AND WELL NO. Horigan COUNTY Wabunsee STATE Ks Sec. 10 Twp. 135 Rge. 10E
Mail Invoice To Same As Above No. Copies Requested 5
Co. Name Horigan #1 Address " Horigan #1
Mail Charts To Horigan #1 Address Horigan #1 No. Copies Requested 5

Formation Test No. 1 Interval Tested from 3240 ft. to 3253 ft. Total Depth 3285 ft.
Packer Depth 3235 ft. Size 6 3/4 in. Packer Depth 3240 ft. Size 6 3/4 in.
Packer Depth 3253 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.
Depth of Selective Zone Set —

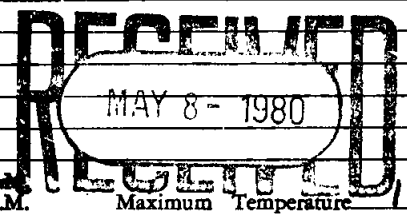
Top Recorder Depth (Inside) 3245 ft. Recorder Number 3474 Cap. 3000
Bottom Recorder Depth (Outside) 3248 ft. Recorder Number 3659 Cap. 4000
Below Straddle Recorder Depth — ft. Recorder Number — Cap. —

Drilling Contractor Edo Pels Rig 6 Drill Collar Length 245 I. D. 2.7 in.
Mud Type 6el Viscosity 66 Weight Pipe Length — I. D. — in.
Weight 9.5 Water Loss 11.2 cc. Drill Pipe Length 2975 I. D. 3.8 in.
Chlorides 1100 P.P.M. Test Tool Length 62 ft. Tool Size 5.00 in.
Jars: Make WTC Serial Number 402 Anchor Length 13 ft. Size 5.00 in.
Did Well Flow? NO Reversed Out yes Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Strong Throughout 1st F.P. Weak And Didd In 45 min. On 2nd Opening. Strong. Decreased TO

Recovered 140 ft. of Muddy Water
Recovered 2290 ft. of SALT Water Chlorides 1,000 PPM

Recovered — ft. of —
Recovered — ft. of —
Recovered — ft. of —
Remarks: —



Arrived 10:30 AM. Departed —
Time Set Packer(s) 3:13 AM. P.M. Time Started Off Bottom 6:15 AM. P.M. Maximum Temperature 124
Initial Hydrostatic Pressure (A) 1623 P.S.I.
Initial Flow Period Minutes 15 (B) 651 P.S.I. to (C) 1075 P.S.I.
Initial Closed In Period Minutes 45 (D) 1083 P.S.I.
Final Flow Period Minutes 60 (E) 1083 P.S.I. to (F) 1083 P.S.I.
Final Closed In Period Minutes 60 (G) 1083 P.S.I.
Final Hydrostatic Pressure (H) 1615 P.S.I.

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 Perry A. Hand Perry A. Hand
Signature of Customer or his authorized representative

Western Representative Alexis Wondra

Thanks you

FIELD INVOICE

Open Hole Test \$ 550.00 ✓
Misrun \$ —
Straddle Test \$ 250.00 ✓
Jars \$ 300.00 ✓
Selective Zone \$ —
Safety Joint \$ 50.00 ✓
Standby \$ —
Evaluation \$ —
Extra Packer \$ —
Circ. Sub. \$ 30.00 ✓
168 Mileage @ .75 \$ 126.00 ✓
From Fluid Sampler \$ —
G.B. Extra Charts \$ —
TOTAL \$ 1306.00

Pressure Data

Date 5-6-80 Test Ticket No. 5197
 Recorder No. 3474 Capacity 3000 Location 3245 Ft.
 Clock No. _____ Elevation 1375 KB Well Temperature 124 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1634</u> P.S.I.	Open Tool	<u>3:13 P</u> M	
B First Initial Flow Pressure	<u>658</u> P.S.I.	First Flow Pressure	<u>15</u> Mins	<u>15</u> Mins.
C First Final Flow Pressure	<u>1067</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1082</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>1078</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins	<u>60</u> Mins.
F Second Final Flow Pressure	<u>1084</u> P.S.I.			
G Final Closed-in Pressure	<u>1084</u> P.S.I.			
H Final Hydrostatic Mud	<u>1617</u> P.S.I.			

PRESSURE BREAKDOWN

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

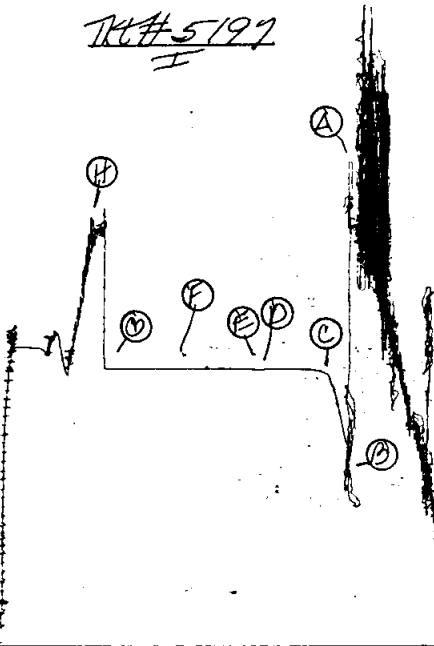
Initial Shut-In
 Breakdown: 15 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 12 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 0	<u>658</u>	0	<u>1067</u>	0	<u>1078</u>	0	<u>1084</u>
P 2 5	<u>918</u>	3	<u>1071</u>	5	<u>1079</u>	3	}
P 3 10	<u>1014</u>	6	<u>1076</u>	10	<u>1081</u>	6	
P 4 15	<u>1067</u>	9	<u>1077</u>	15	<u>1082</u>	9	
P 5 20		12	<u>1080</u>	20	<u>1083</u>	12	
P 6 25		15	<u>1080</u>	25	<u>1084</u>	15	
P 7 30		18	<u>1080</u>	30	<u>1084</u>	18	
P 8 35		21	<u>1081</u>	35		21	
P 9 40		24	<u>1082</u>	40		24	
P 10 45		27	<u>1082</u>	45		27	
P 11 50		30		50		30	
P 12 55		33		55		33	
P 13 60		36		60	<u>1084</u>	36	
P 14		39		65		39	
P 15		42		70		42	
P 16		45	<u>1082</u>	75		45	
P 17		48		80		48	
P 18		51		85		51	
P 19		54		90		54	
P 20		57				57	
		60				60	<u>1084</u>

TRK # 5197
I



Handwritten initials or signature.

TRK# 5197
Below Straddle



Company Pendleton Land & Exploration, Inc.

Lease & Well No. Harigan #1

Elevation 1375 Kelly Bushing Formation Viola

Effective Pay ----- Ft. Ticket No. 5197

Date 5/6/80 Sec 10 Twp 13S Range 10E

County Wabaunsee State Kansas

Test Approved by Perry A. Hand

Western Representative Denis Wondra

Formation Test No. 1 Interval Tested from 3240 ft. to 3253 ft. Total Depth 3285 ft.

Packer Depth 3235 ft. Size 6 3/4 in. Packer Depth 3240 ft. Size 6 3/4 in.

Packer Depth 3253 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3245 ft. Recorder Number 3474 Cap. 3000

Bottom Recorder Depth (Outside) 3248 ft. Recorder Number 3659 Cap. 4000

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Edco Drilling Rig #6 Drill Collar Length 245 I. D. 2.7 in.

Mud Type gel Viscosity 66 Weight Pipe Length -- I. D. - in.

Weight 9.5 Water Loss 11.2 cc. Drill Pipe Length 2975 I. D. 3.8 in.

Chlorides 1,100 P.P.M. Test Tool Length 62 ft. Tool Size 5 1/2 OD in.

Jars: Make WTC Serial Number 402 Anchor Length 13 ft. Size 5 1/2 OD in.

Did Well Flow? No Reversed Out Yes 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: Strong throughout first flow period. Strong, decreased to weak and died in forty-five minutes on second opening.

Recovered 140 ft. of muddy water

Recovered 2290 ft. of salt water Chlorides 1,000 ppm

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 3:13 ~~A.M.~~ P.M. Time Started Off Bottom 6:15 ~~A.M.~~ P.M. Maximum Temperature 124°

Initial Hydrostatic Pressure (A) 1634 P.S.I.

Initial Flow Period Minutes 15 (B) 658 P.S.I. to (C) 1067 P.S.I.

Initial Closed In Period Minutes 45 (D) 1082 P.S.I.

Final Flow Period Minutes 60 (E) 1078 P.S.I. to (F) 1084 P.S.I.

Final Closed In Period Minutes 60 (G) 1084 P.S.I.

Final Hydrostatic Pressure (H) 1617 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 5/6/80 Test Ticket No. 5197
 Recorder No. 3474 Capacity 3000 Location 3245 Ft.
 Clock No. ----- Elevation 1375 Kelly Bushing Well Temperature 124 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1634</u> P.S.I.	Open Tool	<u>3:13P</u> M	
B First Initial Flow Pressure	<u>658</u> P.S.I.	First Flow Pressure	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>1067</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1082</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>1078</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>1084</u> P.S.I.			
G Final Closed-in Pressure	<u>1084</u> P.S.I.			
H Final Hydrostatic Mud	<u>1617</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>3</u> Inc.		Breakdown: <u>15</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>20</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>658</u>	<u>0</u>	<u>1067</u>	<u>0</u>	<u>1078</u>	<u>0</u>	<u>1084</u>
P 2 <u>5</u>	<u>918</u>	<u>3</u>	<u>1071</u>	<u>5</u>	<u>1079</u>	<u>3</u>	<u>1084</u>
P 3 <u>10</u>	<u>1014</u>	<u>6</u>	<u>1076</u>	<u>10</u>	<u>1081</u>	<u>6</u>	<u>1084</u>
P 4 <u>15</u>	<u>1067</u>	<u>9</u>	<u>1079</u>	<u>15</u>	<u>1082</u>	<u>9</u>	<u>1084</u>
P 5 _____	_____	<u>12</u>	<u>1080</u>	<u>20</u>	<u>1083</u>	<u>12</u>	<u>1084</u>
P 6 _____	_____	<u>15</u>	<u>1080</u>	<u>25</u>	<u>1084</u>	<u>15</u>	<u>1084</u>
P 7 _____	_____	<u>18</u>	<u>1080</u>	<u>30</u>	<u>1084</u>	<u>18</u>	<u>1084</u>
P 8 _____	_____	<u>21</u>	<u>1081</u>	<u>35</u>	<u>1084</u>	<u>21</u>	<u>1084</u>
P 9 _____	_____	<u>24</u>	<u>1082</u>	<u>40</u>	<u>1084</u>	<u>24</u>	<u>1084</u>
P10 _____	_____	<u>27</u>	<u>1082</u>	<u>45</u>	<u>1084</u>	<u>27</u>	<u>1084</u>
P11 _____	_____	<u>30</u>	<u>1082</u>	<u>50</u>	<u>1084</u>	<u>30</u>	<u>1084</u>
P12 _____	_____	<u>33</u>	<u>1082</u>	<u>55</u>	<u>1084</u>	<u>33</u>	<u>1084</u>
P13 _____	_____	<u>36</u>	<u>1082</u>	<u>60</u>	<u>1084</u>	<u>36</u>	<u>1084</u>
P14 _____	_____	<u>39</u>	<u>1082</u>	_____	_____	<u>39</u>	<u>1084</u>
P15 _____	_____	<u>42</u>	<u>1082</u>	_____	_____	<u>42</u>	<u>1084</u>
P16 _____	_____	<u>45</u>	<u>1082</u>	_____	_____	<u>45</u>	<u>1084</u>
P17 _____	_____	_____	_____	_____	_____	<u>48</u>	<u>1084</u>
P18 _____	_____	_____	_____	_____	_____	<u>51</u>	<u>1084</u>
P19 _____	_____	_____	_____	_____	_____	<u>54</u>	<u>1084</u>
P20 _____	_____	_____	_____	_____	_____	<u>57</u>	<u>1084</u>
						<u>60</u>	<u>1084</u>