WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET Nº 7658

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 2304 K.B. Formation Conglomerate Eff. Pay ____ Ft.

District Pratt Date 10-20-80 Customer Order No. ____

COMPANY NAME Pickrell Drilling Co

ADDRESS Litwin Bldg Suite 205 - 110 N Market, Wichita, Kns 67202

LEASE AND WELL NO. #1 Shellhammer A COUNTY Ford STATE Kansas Sec. 23 Twp. 27S Rge. 21W

Mail Invoice To #1-A Shellhammer Same No. Copies Requested Reg
Co. Name Address

Mail Charts To Same No. Copies Requested Reg
Address

Formation Test No. 1 Interval Tested from 4842 ft. to 4905 ft. Total Depth 4905 ft.

Packer Depth 4837 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Packer Depth 4842 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set —

Top Recorder Depth (Inside) 4846 ft. Recorder Number 2406 Cap. 4150

Bottom Recorder Depth (Outside) 4849 ft. Recorder Number 4332 Cap. 4200

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

Drilling Contractor Co Tools Drill Collar Length 337 I. D. 2 1/4 in.

Mud Type Disp Gel Viscosity 58 Weight Pipe Length — I. D. — in.

Weight 9.1 Water Loss 10.8 cc. Drill Pipe Length 4507 I. D. 3.8 in.

Chlorides 15,000 P.P.M. Test Tool Length 38 ft. Tool Size 5 1/2 OD in.

Jars: Make WTC Serial Number 409 Anchor Length 63 (3 3/4 30) 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: Weak blow for 10 min. on initial flow period
NO blow on final flow period

Recovered 10 ft. of slightly oil spotted mud

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Remarks: flushed tool on final flow period

Time On Location 3:00 A.M. P.M. Time Pick Up Tool 4:00 A.M. P.M. Time Off Location 9:00 A.M. P.M.

Time Set Packer(s) 5:55 A.M. P.M. Time Started Off Bottom 7:15 A.M. P.M. Maximum Temperature 122° F

Initial Hydrostatic Pressure			(A)	2397	P.S.I.	
Initial Flow Period	Minutes	30	(B)	41	P.S.I. to (C)	31 P.S.I.
Initial Closed In Period	Minutes	30	(D)	62	P.S.I.	
Final Flow Period	Minutes	10 10 flushed	(E)	31	P.S.I. to (F)	20 P.S.I.
Final Closed In Period	Minutes		(G)	—	P.S.I.	
Final Hydrostatic Pressure			(H)	2344	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 Thomas Funk
Signature of Customer or his authorized representative

Western Representative Carl Tuttle Thank you

FIELD INVOICE

Open Hole Test	$ 600.00
Misrun	$ ____
Straddle Test	$ ____
Jars	$ 300.00
Selective Zone	$ ____
Safety Joint	$ 50.00
Standby	$ ____
Evaluation	$ ____
Extra Packer	$ ____
Circ. Sub.	$ 48.75
Mileage	$ 65.00
Fluid Sampler	$ ____
Extra Charts	$ ____
Insurance	$ ____
TOTAL	$ 998.75

905
84/2
63

WESTERN TESTING CO., INC.
Pressure Data

Date 10-20 Test Ticket No. 7658

Recorder No. 2606 Capacity 4150 Location 4846 Ft.

Clock No. Elevation 2304 KB Well Temperature 122 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2401	P.S.I.	Open Tool 5:55 AM	
B First Initial Flow Pressure	29	P.S.I.	First Flow Pressure 30 Mins.	30 Mins.
C First Final Flow Pressure	29	P.S.I.	Initial Closed-in Pressure 30 Mins.	30 Mins.
D Initial Closed-in Pressure	55	P.S.I.	Second Flow Pressure 20 Mins.	15 Mins.
E Second Initial Flow Pressure	24	P.S.I.	Final Closed-in Pressure [illegible] Mins.	Mins.
F Second Final Flow Pressure	24	P.S.I.		
G Final Closed-in Pressure		P.S.I.		
H Final Hydrostatic Mud	2355	P.S.I.		

PRESSURE BREAKDOWN

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

Point Mins.		Press.
P 1	0	29
P 2	5	
P 3	10	
P 4	15	
P 5	20	
P 6	25	
P 7	30	29
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	29
3	29
6	29
9	29
12	31
15	33
18	41
21	46
24	50
27	52
30	55
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

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

Point Minutes	Press.
0	24
5	
10	
15	24
20	
25	
30	
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
85	
90	

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

Point Minutes	Press.
0	[illegible]
3	
6	
9	
12	
15	
18	
21	
24	
27	
30	
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

Company Pickrell Drilling Company Lease & Well No. Shellhammer "A"#1

Elevation 2304 Kelly Bushing Formation Conglomerate Effective Pay ---- Ft. Ticket No. 7658

Date 10/20/80 Sec. 23 Twp. 27S Range 21W County Ford State Kansas

Test Approved by Thomas Funk Western Representative Rod Tritt

Formation Test No. 1 Interval Tested from 4842 ft. to 4905 ft. Total Depth 4905 ft.

Packer Depth 4837 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4842 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4846 ft. Recorder Number 2606 Cap. 4150

Bottom Recorder Depth (Outside) 4849 ft. Recorder Number 4332 Cap. 4200

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

Drilling Contractor Pickrell Drilling Drill Collar Length 337 I. D. 2¼ in.

Mud Type drispac Viscosity 58 Weight Pipe Length - I. D. - in.

Weight 9. Water Loss 10.8 cc. Drill Pipe Length 4507 I. D. 3.8 in.

Chlorides 15,000 P.P.M. Test Tool Length 28 ft. Tool Size 5½OD in.

Jars: Make WTC Serial Number 409 Anchor Length 63=(33+30) ft. Size 5½OD 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 4½FH in.

Blow: Weak blow ten minutes on initial flow period. No blow on final flow period.

Recovered 10 ft. of slightly oil spotted mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Flushed tool on final flow period.

Time Set Packer(s) 5:55 A.M. P.M. Time Started Off Bottom 7:15 A.M. P.M. Maximum Temperature 122°

Initial Hydrostatic Pressure (A) 2401 P.S.I.

Initial Flow Period Minutes 30 (B) 29 P.S.I. to (C) 29 P.S.I.

Initial Closed In Period Minutes 30 (D) 55 P.S.I.

Final Flow Period Minutes 15 (E) 24 P.S.I. to (F) 24 P.S.I.

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

Final Hydrostatic Pressure (H) 2355 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 10-20-80 Test Ticket No. 7658

Recorder No. 2606 Capacity 4150 Location 4846 Ft

Clock No. ---------- Elevation 2304 Kelly Bushing Well Temperature 122 °I

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	2401	P.S.I.	Open Tool	5:55 AM	
B	First Initial Flow Pressure	29	P.S.I.	First Flow Pressure	30 Mins.	30 Mins
C	First Final Flow Pressure	29	P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins
D	Initial Closed-in Pressure	55	P.S.I.	Second Flow Pressure	20 Mins.	15 Mins
E	Second Initial Flow Pressure	24	P.S.I.	Final Closed-in Pressure	-- Mins.	-- Mins
F	Second Final Flow Pressure	24	P.S.I.			
G	Final Closed-in Pressure	--	P.S.I.			
H	Final Hydrostatic Mud	2355	P.S.I.			

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	29
P 2 5	29
P 3 10	29
P 4 15	29
P 5 20	29
P 6 25	29
P 7 30	29
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 10 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	29
3	29
6	29
9	29
12	31
15	33
18	41
21	46
24	50
27	52
30	55

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

Point Minutes	Press.
0	24
5	24
10	24
15	24

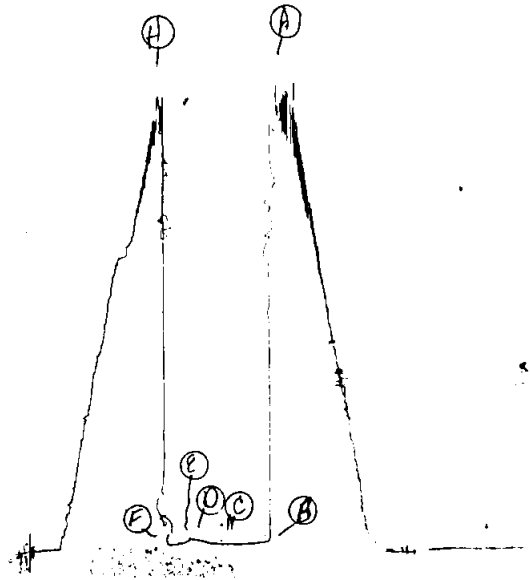
Final Shut-In
Breakdown: 0 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.

2606 USI "T"

IKT # 7658

I



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET Nº 7659

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 2304 KB Formation Miss Eff. Pay Ft.

District Pratt Date 10-20-82 Customer Order No.

COMPANY NAME Pickrell Drilling Co Lifwin Bldg Suite 205
ADDRESS 110 North Market St Wichita, Kansas 67202
LEASE AND WELL NO. Shellhammer A-1 COUNTY Ford STATE Kans Sec 23 Twp 27S Rg 21W
Mail Invoice To #1-A Shellhammer Same No. Copies Requested Leg
Co. Name Address
Mail Charts To Same No. Copies Requested Leg
Address

Formation Test No. 2 Interval Tested from 4909 ft. to 4950 ft. Total Depth 4950 ft.
Packer Depth 4904 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.
Packer Depth 4909 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.
Depth of Selective Zone Set —

Top Recorder Depth (Inside) 4913 ft. Recorder Number [illegible] Cap. 4150
Bottom Recorder Depth (Outside) 4916 ft. Recorder Number 4332 Cap. 4200
Below Straddle Recorder Depth — ft. Recorder Number — Cap. —

Drilling Contractor Co tools Drill Collar Length 337 I. D. 2 1/4 in.
Mud Type Disposé Viscosity 46 Weight Pipe Length — I. D. — in.
Weight 9.2 Water Loss 10.4 cc. Drill Pipe Length 4441 I. D. 3.8 in.
Chlorides 14,000 P.P.M. Test Tool Length 28 ft. Tool Size 5 1/2 OD in.
Jars: Make WTC Serial Number 409 Anchor Length 41 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 blow died in 14 minutes on initial flow
just bubbled on final flow period
Recovered 15 ft. of slightly oil cut mud
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of
Remarks: flushed tool on final flow period

Time On Location All day A.M. P.M. Time Pick Up Tool 5:00 A.M. P.M. Time Off Location 1:45 A.M. P.M.
Time Set Packer(s) 10:00 A.M. P.M. Time Started Off Bottom 11:15 A.M. P.M. Maximum Temperature 122°F

Initial Hydrostatic Pressure			(A)	2345	P.S.I.	
Initial Flow Period	Minutes	30	(B)	52	P.S.I. to (C)	51 P.S.I.
Initial Closed In Period	Minutes	30	(D)	468	P.S.I.	
Final Flow Period	Minutes	15	(E)	52	P.S.I. to (F)	51 P.S.I.
Final Closed In Period	Minutes	—	(G)	—	P.S.I.	
Final Hydrostatic Pressure			(H)	2341	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 Thomas Funk
Signature of Customer or his authorized representative

Western Representative Ted Tuttle Thank you

FIELD INVOICE

Open Hole Test	$ 600.00
Misrun	$
Straddle Test	$
Jars	$ 300.00
Selective Zone	$
Safety Joint	$ 50.00
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage	$ N/C
Fluid Sampler	$
Extra Charts	$
Insurance	$
TOTAL	$ 950.00

WESTERN TESTING CO., INC.
Pressure Data

Date 10-20 Test Ticket No. 7659

Recorder No. 2606 Capacity 4150 Location 4913 Ft.

Clock No. ~~~~ Elevation 2304 KB Well Temperature 122 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2353 P.S.I.	Open Tool	10:00 PM	
B First Initial Flow Pressure	37 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	37 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	464 P.S.I.	Second Flow Pressure	15 Mins.	20 Mins.
E Second Initial Flow Pressure	75 P.S.I.	Final Closed-in Pressure	— Mins.	— Mins.
F Second Final Flow Pressure	31 P.S.I.			
G Final Closed-in Pressure	— P.S.I.			
H Final Hydrostatic Mud	2343 P.S.I.			

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	37
P 2 5	
P 3 10	
P 4 15	
P 5 20	
P 6 25	
P 7 30	37
P 8 35	
P 9 40	
P10 45	
P11 50	
P12 55	
P13 60	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	37
3	40
6	40
9	43
12	54
15	75
18	137
21	216
24	312
27	398
30	464
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

Second Flow Pressure
Breakdown: 4 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	75
5	FLUSHED TOOL
10	52
15	42
20	31
25	
30	
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
85	
90	

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

Point Minutes	Press.
0	
3	
6	
9	
12	
15	
18	
21	
24	
27	
30	
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

Company Pickrell Drilling Company Lease & Well No. Shellhammer "A"#1

Elevation 2304 Kelly Bushing Formation Mississippi Effective Pay ----- Ft. Ticket No. 7659

Date 10/20/80 Sec. 23 Twp. 27S Range 21W County Ford State Kansas

Test Approved by Thomas Funk Western Representative Rod Tritt

Formation Test No. 2 Interval Tested from 4909 ft. to 4950 ft. Total Depth 4950 ft.

Packer Depth 4904 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4909 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set =

Top Recorder Depth (Inside) 4913 ft. Recorder Number 2606 Cap. 4150

Bottom Recorder Depth (Outside) 4916 ft. Recorder Number 4332 Cap. 4200

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

Drilling Contractor Pickrell Drilling Drill Collar Length 337 I. D. 2¼ in.

Mud Type drispac Viscosity 46 Weight Pipe Length - I. D. - in.

Weight 9.2 Water Loss 10.4 cc. Drill Pipe Length 4444 I. D. 3.8 in.

Chlorides 14,000 P.P.M. Test Tool Length 28 ft. Tool Size 5½OD in.

Jars: Make WTC Serial Number 409 Anchor Length 41 ft. Size 5½OD 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 4½FH in.

Blow: Very weak blow ; died in fourteen minutes on initial flow period. Few bubbles on final flow period.

Recovered 15 ft. of slightly oil cut mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Flushed tool on final flow period.

Time Set Packer(s) 10:00 ~~A.M.~~ P.M. Time Started Off Bottom 11:15 ~~A.M.~~ P.M. Maximum Temperature 122°

Initial Hydrostatic Pressure (A) 2353 P.S.I.

Initial Flow Period Minutes 30 (B) 37 P.S.I. to (C) 37 P.S.I.

Initial Closed In Period Minutes 30 (D) 464 P.S.I.

Final Flow Period Minutes 20 (E) 75 P.S.I. to (F) 31 P.S.I.

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

Final Hydrostatic Pressure (H) 2343 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 10-20-80 Test Ticket No. 7659

Recorder No. 2606 Capacity 4150 Location 4913 Ft.

Clock No. ----- Elevation 2304 Kelly Bushing Well Temperature 122 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2353	P.S.I.
B	First Initial Flow Pressure	37	P.S.I.
C	First Final Flow Pressure	37	P.S.I.
D	Initial Closed-in Pressure	464	P.S.I.
E	Second Initial Flow Pressure	75	P.S.I.
F	Second Final Flow Pressure	31	P.S.I.
G	Final Closed-in Pressure	---	P.S.I.
H	Final Hydrostatic Mud	2343	P.S.I.

	Time Given	Time Computed
Open Tool	10:00 P M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	30 Mins.	30 Mins.
Second Flow Pressure	15 Mins.	20 Mins.
Final Closed-in Pressure	-- Mins.	-- Mins.

PRESSURE BREAKDOWN

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

Point	Mins.	Press.
P 1	0	37
P 2	5	37
P 3	10	37
P 4	15	37
P 5	20	37
P 6	25	37
P 7	30	37
P 8		
P 9		
P10		
P11		
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point	Minutes	Press.
	0	37
	3	40
	6	40
	9	43
	12	54
	15	75
	18	137
	21	216
	24	312
	27	398
	30	464

Second Flow Pressure
Breakdown: 4 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Minutes	Press.
	0	75
	5	Flushed Tool
	10	52
	15	42
	20	31

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

Point	Minutes	Press.

2606 UST-2

IKT #7659

I

