Company W. L. Kirkman, Inc. Lease & Well No. Fatzer #1

Elevation 2124 Ground Level Formation Cherokee Effective Pay - Ft. Ticket No. 10982

Date 5/27/81 Sec. 33 Twp. 35S Range 17W County Edwards State Kansas

Test Approved by L.Kristopher Moore Western Representative Jeff Beauchamp-Louis Spencer

Formation Test No. 2 Interval Tested from 4486 ft. to 4506 ft. Total Depth 4506 ft.

Packer Depth 4481 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4486 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4499 ft. Recorder Number 4332 Cap. 4200

Bottom Recorder Depth (Outside) 4502 ft. Recorder Number 2606 Cap. 4150

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

Drilling Contractor Merckle Drlg. Co. Drill Collar Length - I. D. - in.

Mud Type premix Viscosity 38 Weight Pipe Length - I. D. - in.

Weight 9.3 Water Loss 18 cc. Drill Pipe Length 4466 I. D. 3.8 in.

Chlorides 14,000 P.P.M. Test Tool Length 20 ft. Tool Size 5½OD in.

Jars: Make - Serial Number - Anchor Length 20 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 4 3/4FH in.

Blow: Very weak initial flow period.

Recovered 5 ft. of mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

READ OUTSIDE CHART

Time Set Packer(s) 4:00 A.M. ~~P.M.~~ Time Started Off Bottom 4:45 A.M. ~~P.M.~~ Maximum Temperature 130°

Initial Hydrostatic Pressure ..... (A) 2282 P.S.I.

Initial Flow Period ..... Minutes 15 (B) 62 P.S.I. to (C) 41 P.S.I.

Initial Closed In Period ..... Minutes 24 (D) 41 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) 2188 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 5/27/81 Test Ticket No. 10982

Recorder No. 2606 Capacity 4150 Location 4502 Ft.

Clock No. - Elevation 2124 Ground Level Well Temperature 130 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2282	P.S.I.
B	First Initial Flow Pressure	62	P.S.I.
C	First Final Flow Pressure	41	P.S.I.
D	Initial Closed-in Pressure	41	P.S.I.
E	Second Initial Flow Pressure	--	P.S.I.
F	Second Final Flow Pressure	--	P.S.I.
G	Final Closed-in Pressure	--	P.S.I.
H	Final Hydrostatic Mud	2188	P.S.I.

	Time Given	Time Computed
Open Tool	4:00A M	
First Flow Pressure	15 Mins.	15 Mins.
Initial Closed-in Pressure	30 Mins.	24 Mins.
Second Flow Pressure	--- Mins.	--- Mins.
Final Closed-in Pressure	--- Mins.	--- Mins.

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	62
P 2 5	47
P 3 10	42
P 4 15	41
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 8 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	41
3	41
6	41
9	41
12	41
15	41
18	41
21	41
24	41

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

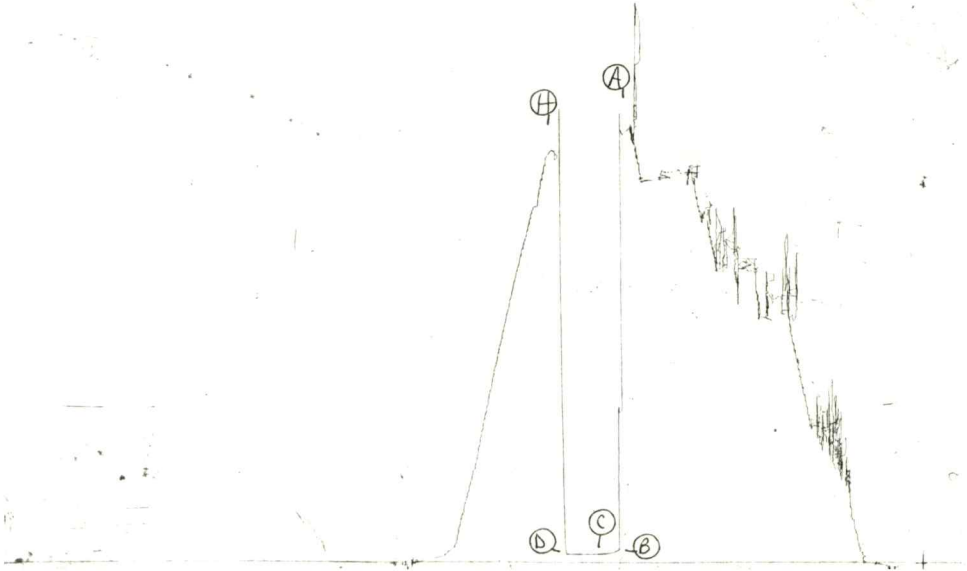
Point Minutes	Press.

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

Point Minutes	Press.

IKT #10982

2606



DKT. #10983

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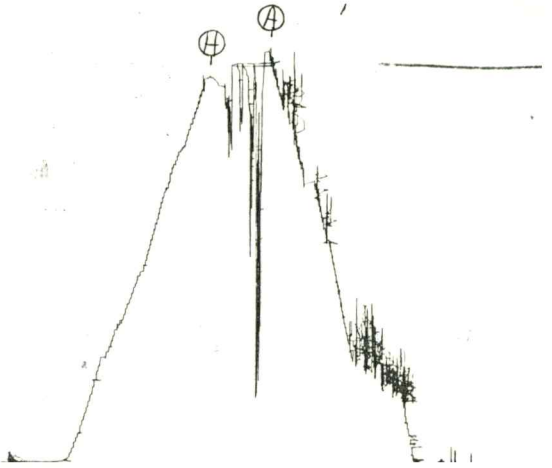


Company W. L. Kirkman, Inc. Lease & Well No. Fatzer #1

Elevation 2124 Ground Level Formation Cherokee Effective Pay - Ft. Ticket No. 1098

Date 5/27/81 Sec. 33 Twp. 35S Range 17W County Edwards State Kansas

Test Approved by L. Kristopher Moore Western Representative Jeff Beauchamp-Louis Spencer

Formation Test No. 3 Interval Tested from 4497 ft. to 4518 ft. Total Depth 4518 ft.

Packer Depth 4492 ft. Size 6 3/4 in. Packer Depth =- ft. Size - in.

Packer Depth 4497 ft. Size 6 3/4 in. Packer Depth =- ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4511 ft. Recorder Number 4332 Cap. 4200

Bottom Recorder Depth (Outside) 4514 ft. Recorder Number 2606 Cap. 4150

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

Drilling Contractor Merckle Drlg. Rig #1 Drill Collar Length - I. D. - in.

Mud Type premix Viscosity 52 Weight Pipe Length - I. D. - in.

Weight 9.3 Water Loss 14.4 cc. Drill Pipe Length 4476 I. D. 3.8 in.

Chlorides 8,000 P.P.M. Test Tool Length 20 ft. Tool Size 5½OD in.

Jars: Make - Serial Number - Anchor Length 21 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 4½XH in.

Blow:

PACKER FAILURE

Recovered ft. of

Recovered ft. of

Recovered ft. of MISRUN

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 4:00 ~~A.M.~~ P.M. Time Started Off Bottom 4:15 ~~A.M.~~ P.M. Maximum Temperature -

Initial Hydrostatic Pressure ..... (A) 2309 P.S.I.

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

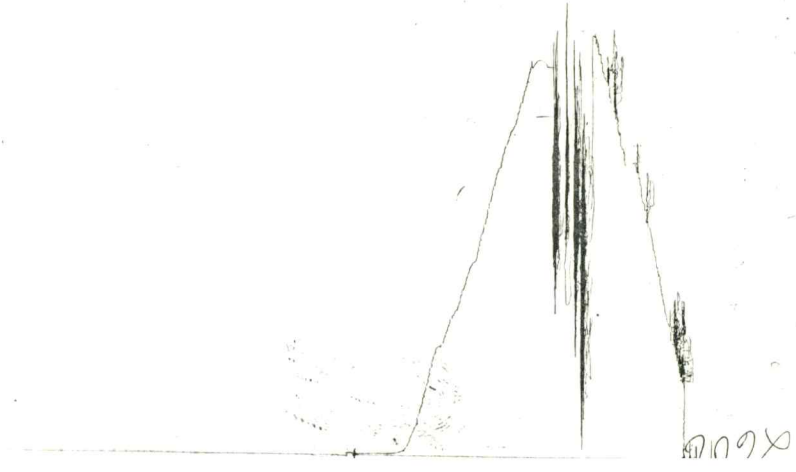
Initial Closed In Period ..... Minutes (D) - P.S.I.

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) 2179 P.S.I.

IKT #10983



Company W. L. Kirkman, Inc. Lease & Well No. Fatzer #1

Elevation 2124 Ground Level Formation Cherokee Effective Pay - Ft. Ticket No. 10984

Date 5/27/81 Sec. 33 Twp. 35S Range 17W County Edwards State Kansas

Test Approved by L. Kristopher Moore Western Representative Jeff Beauchamp

Formation Test No. 4 Interval Tested from 4490 ft. to 4518 ft. Total Depth 4158 ft.

Packer Depth 4485 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4490 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4510 ft. Recorder Number 2606 Cap. 4150

Bottom Recorder Depth (Outside) 4513 ft. Recorder Number 4332 Cap. 4200

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

Drilling Contractor Merckle Drlg. Rig #1 Drill Collar Length - I. D. - in.

Mud Type premix-chemical Viscosity 52 Weight Pipe Length - I. D. - in.

Weight 9.3 Water Loss 14.4 cc. Drill Pipe Length 4470 I. D. 3.8 in.

Chlorides 8,000 P.P.M. Test Tool Length 20 ft. Tool Size 5½OD in.

Jars: Make - Serial Number - Anchor Length 28 ft. Size 5½OD in.

Did Well Flow? = Reversed Out = Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½XH in.

Blow: Initial flow period building to good. Good final flow period.

Recovered 140 ft. of mud slight show of oil

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Geologist has second chart.

Time Set Packer(s) 8:15 ~~A.M.~~ P.M. Time Started Off Bottom A.M. P.M. Maximum Temperature 127°

Initial Hydrostatic Pressure ..... (A) 2272 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 110 P.S.I. to (C) 92 P.S.I.

Initial Closed In Period ..... Minutes 57 (D) 1040 P.S.I.

Final Flow Period ..... Minutes 30 (E) 167 P.S.I. to (F) 126 P.S.I.

Final Closed In Period ..... Minutes 60 (G) 530 P.S.I.

Final Hydrostatic Pressure ..... (H) 2134 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 5/27/81 Test Ticket No. 10984

Recorder No. 2606 Capacity 4150 Location 4510 Ft.

Clock No. - Elevation 2124 Ground Level Well Temperature 127 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2272	P.S.I.
B	First Initial Flow Pressure	110	P.S.I.
C	First Final Flow Pressure	92	P.S.I.
D	Initial Closed-in Pressure	1040	P.S.I.
E	Second Initial Flow Pressure	167	P.S.I.
F	Second Final Flow Pressure	126	P.S.I.
G	Final Closed-in Pressure	530	P.S.I.
H	Final Hydrostatic Mud	2134	P.S.I.

	Time Given	Time Computed
Open Tool	8:15P M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	60 Mins.	57 Mins.
Second Flow Pressure	30 Mins.	30 Mins.
Final Closed-in Pressure	60 Mins.	60 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	110
P 2 5	95
P 3 10	93
P 4 15	92
P 5 20	92
P 6 25	92
P 7 30	92
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 19 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	92
3	152
6	229
9	286
12	360
15	448
18	528
21	594
24	643
27	698
30	747
33	787
36	840
39	885
42	921
45	948
48	977
51	1006
54	1031
57	1040

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

Point Minutes	Press.
0	167
5	141
10	130
15	126
20	126
25	126
30	126

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	126
3	134
6	154
9	188
12	223
15	245
18	260
21	275
24	292
27	312
30	331
33	351
36	372
39	396
42	413
45	433
48	454
51	472
54	491
57	509
60	530

IKT # 10984

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