

Superior Testers Enterprises, Inc.

R.R. 3, Box 295B, Great Bend, Kansas 67530

(316) 792-6902

Date 11-25-1997 Location C 1/2 - N 1/4 - 1/4 10-21-11W Elevation 1989 ASL County Stafford

Company F.G. Hall Company L.L.C. Number of Copies 5

Charts Mailed to 6427 East Kellogg Rd. Box 780167 Wichita Kansas 67278-0167

Drilling Contractor Steelwing Drilling Rig #4

Length Drill Pipe 1910 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/2" X.H.

Length Weight Pipe NONE I.D. Weight Pipe NONE Tool Joint Size NONE

Length Drill Collars 423 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2" X.H.

Top Packer Depth 2347 Bottom Packer Depth 2352 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 2352 TO 2382 ANCHOR LENGTH 30 TOTAL DEPTH 2382 Hole Size 7 7/8"

LEASE & WELL NO. FAIR "A" #1-10 FORMATION TESTED _____ TEST NO. 4

Mud Weight 9.4 Viscosity 37 Water Loss 24% Chlorides - Pits 50000 D.S.T. 142000

Maximum Temp. 92 °F Initial Hydrostatic Pressure (A) 1178 P.S.I. Final Hydrostatic Pressure (H) 1171 P.S.I.

Tool Open I.F.P. from 11:30 P.m. to 12:00 A.m. 30 min

Tool Closed I.C.I.P. from 12:00 A.m. to 12:45 A.m. 45 min

Tool Open F.F.P. from 12:45 A.m. to 1:15 A.m. 30 min

Tool Closed F.C.I.P. from 1:15 A.m. to 2:00 A.m. 45 min

Initial Blow Strong - Gas to Surface in 4 minutes

Final Blow Strong blow - See Gas flow Report

Total Feet Recovered 570 Gravity of Oil _____ Corrected _____

60 Feet of mud % Gas _____ % Oil _____ % Mud _____ % Water _____

120 Feet of Muddy water % Gas _____ % Oil _____ % Mud _____ % Water _____

120 Feet of SLIGHTLY muddy water % Gas _____ % Oil _____ % Mud _____ % Water _____

270 Feet of water % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

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_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

Remarks _____

Extra Equipment - Jars NONE Safety Joint NONE Extra Packer NONE Straddle NONE Hook Wall NONE

Top Recorder No. 78025 Clock No. ELECTRONIC Depth 2376 Ctr. Sub NONE Sampler NONE

Bottom Recorder No. 4744 Clock No. 4744 Depth 2379 Insurance NONE

Price of Job _____

Tool Operator Gene Budij

Approved By _____

No 11665

Superior Testers Enterprises, Inc. shall not be liable for damage 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, or its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

SUPERIOR TESTERS ENTERPRISES INC.

Great Bend, Kansas

CHART DATA

(316) 792-6902

FAIR "A" #1-10

State KANSAS

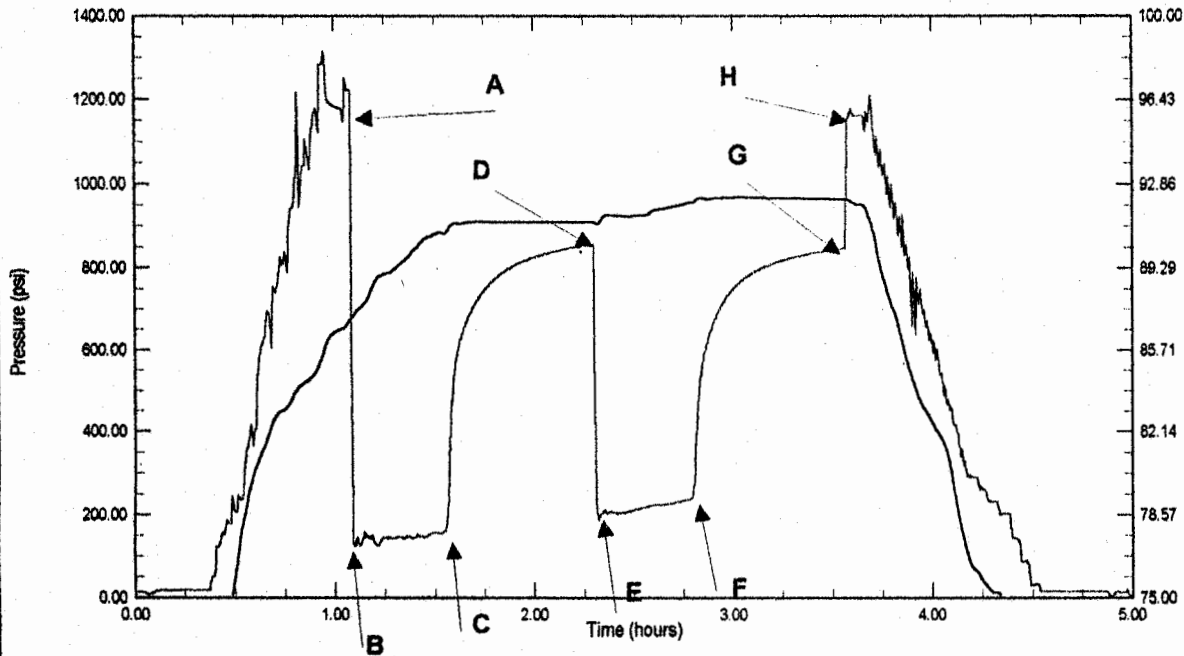
Test Date November 25, 1997

County

Sec Town Range C-N/2-N/W-N/E 10-21S

Field

Report Number 11665



Field Reading

Office Reading

(A)	Initial Hydrostatic Pressure	1178	psi
(B)	Initial Flow Pressure	135	psi
(C)	Final Initial Flow Pressure	161	psi
(D)	Initial Shut-In Pressure	857	psi
(E)	Initial Final Flow Pressure	165	psi
(F)	Final Flow Pressure	238	psi
(G)	Final Shut-In Pressure	847	psi
(H)	Final Hydrostatic Pressure	1171	psi

ELECTRONIC REECORDER DEPTH 2376ft, RECORDER NUMBER 78225

Company: F.G.HOLL COMPANY L.L.C. Lease & Well No. FAIR "A" #1-10 Test #: 4 Date: 11-25-1997
 SEC. 10 TWP. 21S RGE. 11W
 15-185-2 3067

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS (316) 792-6902

General Information

Test Company Name SUPERIOR TESTERS ENTERPRISES INC.
Company Name F.G.HOLL COMPANY L.L.C.
Lease and Well Number FAIR"A"#1-10
Formation Tested
Test Number 4
State KANSAS
County STAFFORD
Field
Test Date 25-Nov-97
Section Town Range C-N/2-N/W-N/E 10-1S-11W
Report Number 11665
Elevation Ground Level 1980
Elevation Kelly Bushings 1989
Company Representative WAYNE KIRKMAN
Testing Engineer GENE BUDIG

Extra Equipment

Jars NO
Safety Joint NO
Extra Packs No
Straddle No
Hook Wall No
Sampler No
Circulating Sub No
Electronic Recorder YES

Well Information

Drilling Contractor STERLING DRILLING RIG #4

Drill Pipe Length 1910
Drill Pipe I.D. 3.8
Tool Joint Size 4 1/2 XH

Weight Pipe Length
Weight Pipe I.D. 2.76
Tool Joint Size 4 1/2 X.H.

Drill Collar Length 423
Drill Collar I.D. 2.25
Tool Joint Size 4 1/2 X.H.

Mud Weight #/gal 9.40
Viscosity 37.00
Water Loss 24
Chlorides - Pits 50,000
Chlorides - DST

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS (316) 792-6902

Tool Setting Information

Top Packer Depth 2347
Bottom packer Depth 2352
Number of Packers 2
Packer Size 6 3/4

Test Interval (from) 2352
Test Interval (to) 2382.00
Anchor Length 30
Total Depth (ft) 2382
Hole Size (in) 7 7/8

Pressure Readings

	<i>Field Reading</i>	<i>Office Reading</i>
Maximum Temp	92	
Initial Hydrostatic Pressure	1178	
Initial Flow Pressure	135	
Final Initial Flow Pressure	161	
Initial Shut-In Pressure	857	
Initial Final Flow Pressure	165	
Final Flow Pressure	238	
Final Shut-In Pressure	847	
Final Hydrostatic Pressure	1171	
Electronic Recorder Depth	2376	
Recorder Number	78225	
Mechanical Recorder Depth	2379	
Recorder Number	5463	

Comments

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS (316) 792-6902

Flow Times

Initial Open

Tool Open (from) 11:30
 Tool Open (to) 12:00
 Duration (min) 30

Initial Shut-in

Tool Closed (from) 12:00
 Tool Closed (to) 12:45
 Duration (min) 45

Final Open

Tool Open (from) 12:45
 Tool Open (to) 1:15
 Duration (min) 30

Final Shut-in

Tool Closed (from) 1:15
 Tool Closed (to) 2:00
 Duration (min) 45

Recovery Description

Initial Blow STRONG BLOW-GAS TO SURFACE IN 4 MINUTES

Final Blow STRONG BLOW -SEE GAS FLOW REPORT

Description	Feet of Recovery	% Gas	% Oil	% Mud	% Water
1) MUD	60				
2) MUDDY WATER	120				
3) SLIGHTLY MUDDY WATER	120				
4) WATER CHLORIDES 142000	270				
5)					
6)					
7)					
8)					
9)					
10)					
11)					
12)					
13)					
14)					
15)					
Total	570				

SUPERIOR TESTERS ENTERPRISES INC.**GREAT BEND, KANSAS****GAS FLOW RATE****(316) 792-6902****FAIR "A" #1-10**

ate KANSAS
nty STAFFORD
ld

Test Date November 25, 1997
Sec Town Range C-N/2-N/W-N/E 10-1S-11W
Report Number #####

Initial Flow

Comments	Time (hh:mm:ss)	Period dt (min)	Inches H2O Orifice Tester	PSI on Orifice Tester	PSI on Pitot Tube	Choke Size (in)	Gas Rate (MCF/Day)
TOOL OPENED	11:35	5	24			1	126.000
AT 11:30 WITH	11:45	15	18			1	110.000
GAS TO	11:55	25	14			1	97.300
SURFACE IN	12:00	30	12			1	89.800
4 MINUTES AT 11:34							

Final Flow

Comments	Time (hh:mm:ss)	Period dt (min)	Inches H2O Orifice Tester	PSI on Orifice Tester	PSI on Pitot Tube	Choke Size (in)	Gas Rate (MCF/Day)
TOOL OPENED	12:55	10	10			1	81.600
AT 12:45	1:05	20	7			1	68.300
	1:15	30	4			1	51.600

Field :
County or Parish :
State :

Date : 25-Nov-97 16:59:59
Analysis Period : END FLOW - 1ST SHUT-IN
Identifier : Line #

Superposition Slope -> m' -3.133806E+5
Horner Slope -> m -3.948596E+7
Intercept 1.562E+8
P(dt=1 hr) 1.497E+8
Pwf 2.731E+7
R Sqr 0.9989

Intercept (psi) 925.705
k (md) 0.28835
kh (md-ft) 2.88347
k/u (md/cp) 12.37541
kh/uB (md-ft/cp) 123.75413
Skin 3.2545
DP Skin 630.0202
Total DP 762.4789
Percent DP 82.63%

Radius Invest (ft) 5
Radius Time (hrs) 0.74

Delta Q = 126
h (ft)= 10
mu (cp) = 0.0233
B (stb/scf) = 0.0012

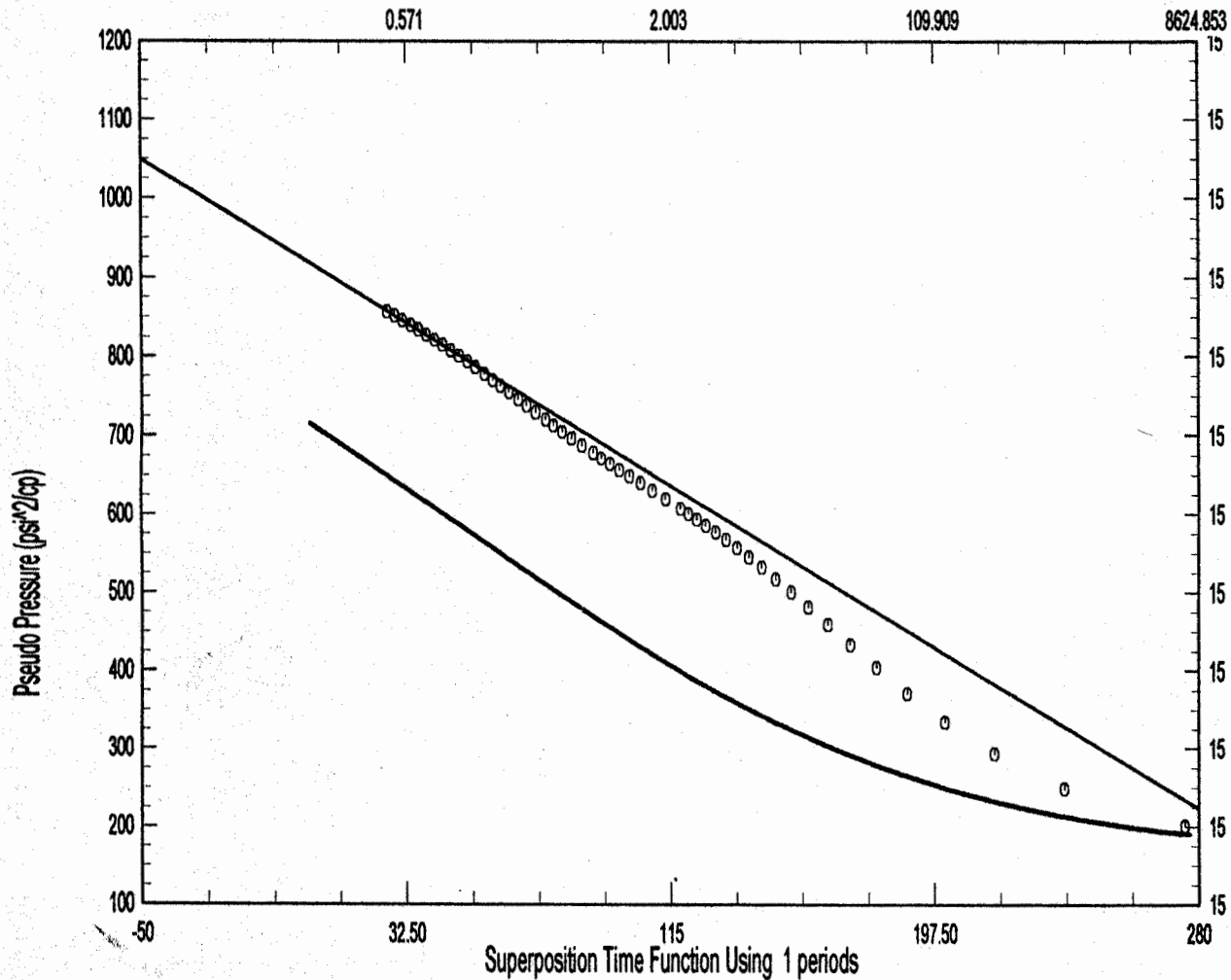
First Point # 125
Second Point # 237
Start Real Time 0.372
End Real Time 0.708
Start SF Time 43.981

(316) 792-6902

1ST SHUT-IN

State KANSAS
County STAFFORD
Field

Test Date	November 25, 1997
Sec Town Range	C-N/2-N/W-N/E 10-21S-11W
Report Number	11665



Constant Storage
C1 : 21.500 bbl/psi

Skin Model
Skin : -3.67

Homogeneous
k : 19457.980 md

No Boundaries

```
h : 18 ft
mu : 0.110 cp
phi : 0.18 %
ct : 2.931E-04 1/psi
rw : 3.208 ft
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Field :
County or Parish :
State :

Date : 25-Nov-97 17:01:52
Analysis Period : END FLOW - 2ND SHUT-IN
Identifier : Line #

Superposition Slope -> m' -3.704308E+5
Horner Slope -> m -3.022715E+7
Intercept 1.571E+8
P(dt=1 hr) 1.483E+8
Pwf 4.192E+7
R Sqr -1.0000

Intercept (psi) 932.514
k (md) 0.24394
kh (md-ft) 2.43939
k/u (md/cp) 10.46947
kh/uB (md-ft/cp) 104.69472
Skin 3.8207
DP Skin 576.6630
Total DP 694.1024
Percent DP 83.08%

Radius Invest (ft) 5
Radius Time (hrs) 0.78

Delta Q = 82
h (ft)= 10
mu (cp) = 0.0233
B (stb/scf) = 0.0012

First Point # -1
Second Point # -1
Start Real Time
End Real Time
Start SF Time

SUPERIOR TESTERS ENTERPRISES II

GREAT BEND, KANSAS

SEMI-LOG ANALYSIS

(316) 792-6902

2ND SHUT-IN

State KANSAS

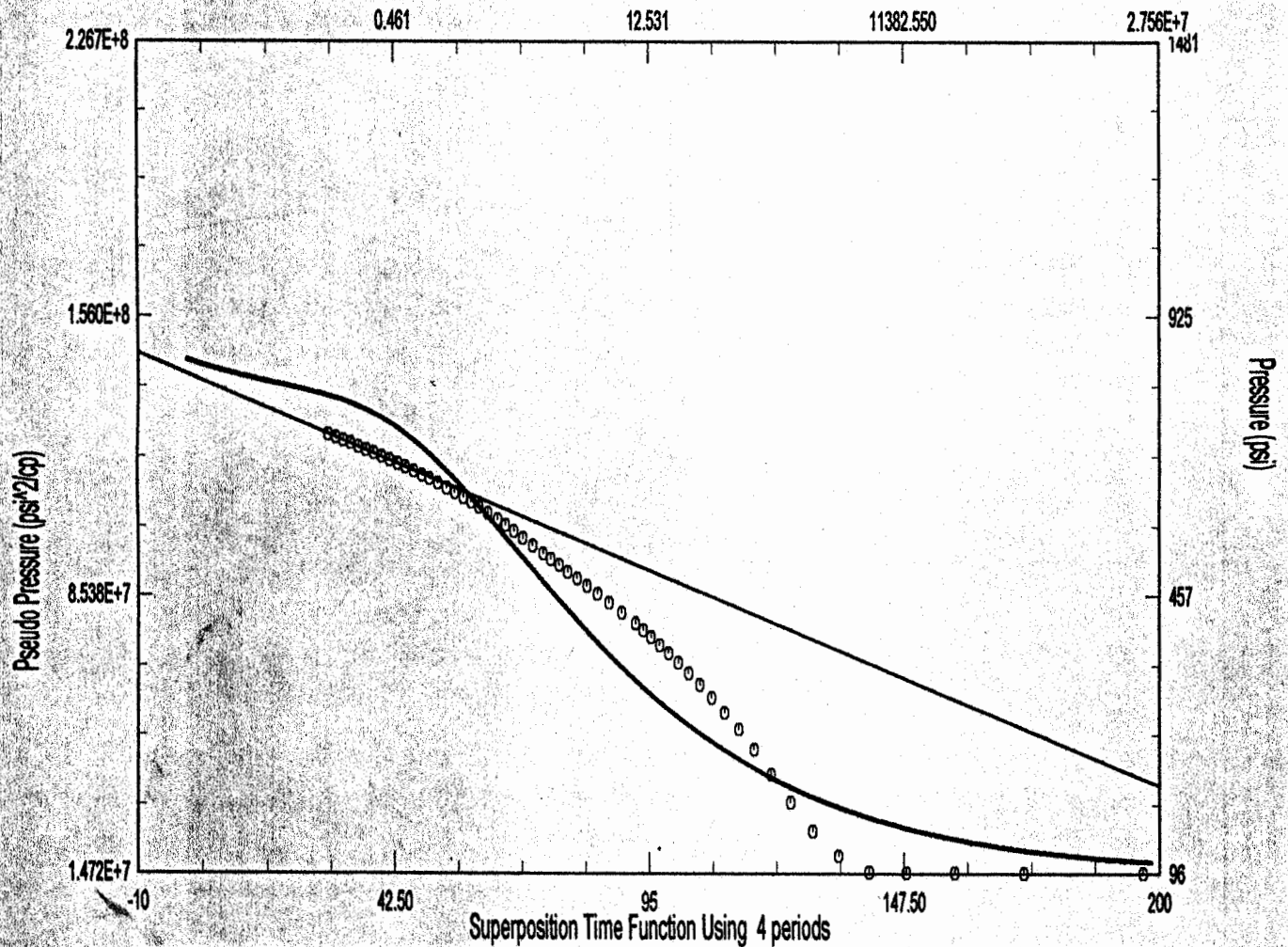
Test Date November 25, 1997

County STAFFORD

Sec Town Range C-N/2-N/W-N/E 10-21S-11W

Field

Report Number 11665



Constant Storage	Skin Model	Homogeneous	No Boundaries	h : 10 ft
C1 : 7.680E-4 bbl/psi	Skin : 3.37	k : 0.187 md		mu : 0.023 cp
				phi : 0.18 %
				ct : 2.113E-03 1/psi
				rw : 3.208 ft