Superior Testers Enterprises, Inc.

R.R. 3, Box 295B, Great Bend, Kansas 67530
(316) 792-6902

15856 L

Date 6-3-1997 Location NW SE NE 15-29S-7W Elevation 1593 KB. County Kingman

Company Cison Production Company Number of Copies 5

Charts Mailed to 9320 East Central Wichita, Kansas 67206

Drilling Contractor Duke Drilling Rig #2

Length Drill Pipe 4116 I.D. Drill Pipe 3.80 Tool Joint Size 4½ X.H.

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

Length Drill Collars None I.D. Drill Collars None Tool Joint Size None

Top Packer Depth 4130 Bottom Packer Depth 4135 Number of Packers 2 Packer Size 6¾"

TESTED FROM 4135 TO 4150 ANCHOR LENGTH 15 TOTAL DEPTH 4150 Hole Size 7⅞"

LEASE & WELL NO. Harrison #1-15 FORMATION TESTED Mississippi TEST NO. 1

Mud Weight 9.2 Viscosity 40 Water Loss 10.4 Chlorides - Pits 5000 D.S.T. 96000

Maximum Temp. 130 °F Initial Hydrostatic Pressure (A) 2024 P.S.I. Final Hydrostatic Pressure (H) 1993 P.S.I.

Tool Open I.F.P. from 8:30 pm to 8:45 pm 15 min

Tool Closed I.C.I.P. from 8:45 pm to 9:15 pm 30 min

Tool Open F.F.P. from 9:15 pm to 10:15 pm 60 min

Tool Closed F.C.I.P. from 10:15 pm to 11:45 pm 90 min

from [B] 50 P.S.I. to [C] 42 P.S.I.

[D] 1330 P.S.I.

from [E] 42 P.S.I. to [F] 90 P.S.I.

[G] 1373 P.S.I.

Initial Blow Strong blow-off the bottom of a 5 Gallon bucket in 10 seconds

Final Blow Strong blow - Gas to Surface in 5 minutes - See Gas flow Report

Total Feet Recovered 150 Gravity of Oil ____ Corrected

150 Feet of	Slightly Gas cut muddy water	% Gas	% Oil	% Mud	% Water
____ Feet of		% Gas	% Oil	% Mud	% Water
____ Feet of		% Gas	% Oil	% Mud	% Water
____ Feet of		% Gas	% Oil	% Mud	% Water
____ Feet of		% Gas	% Oil	% Mud	% Water
____ Feet of		% Gas	% Oil	% Mud	% Water
____ Feet of		% Gas	% Oil	% Mud	% Water
____ 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. 78225 Clock No. Electronic Depth 4143 Cir. Sub None Sampler None

Bottom Recorder No. 11088 Clock No. 47441 Depth 4147 Insurance None

Price of Job

Tool Operator Steve Sudy

Approved By

No 11642

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, of 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.

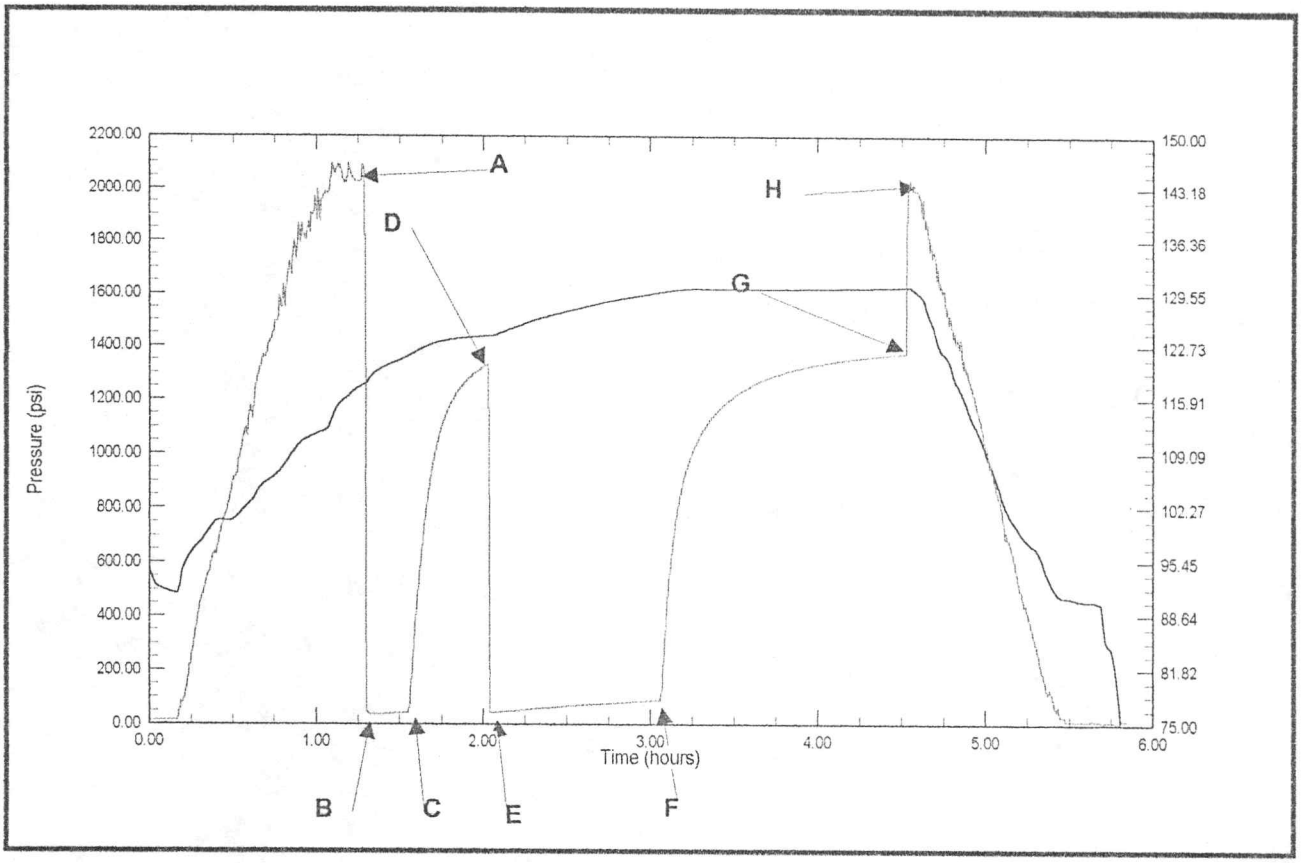
Great Bend, Kansas

CHART DATA

(316) 792-6902

HARRISSON #1-15 MISSISSIPPI

State ..... KANSAS	*Test Date* ..... June 3, 1997
County	*Sec Town Range* ..... N/W S/E N/E 15-29S-7
Field	*Report Number* 11642



	Field Reading	Office Reading
(A) ial Hydrostatic Pressure	2024	psi
(B) Initial Flow Pressure	50	psi
(C) nal Initial Flow Pressure	42	psi
(D) Initial Shut-In Pressure	1330	psi
(E) itial Final Flow Pressure	42	psi
(F) Final Flow Pressure	90	psi
(G) Final Shut-In Pressure	1373	psi
(H) ıal Hydrostatic Pressure	19933	psi

Mechanical Recorder Depth 4147 ft, Recorder Number 11087

Company: BISON PRODUCTION COMPANY Lease & Well No. HARRISON #1-15 Test # 1 Date: 6-3-1997
Sec. 15 TWP. 29S RGE. 7W

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	BISON PRODUCTION COMPANY
Lease and Well Number	HARRISSON #1-15
Formation Tested	MISSISSIPPI
Test Number	1
State	KANSAS
County	KINGMAN
Field	
Test Date	3-Jun-97
Section Town Range	N/W S/E N/E 15-29S-7W
Report Number	11642
Elevation Ground Level	1585
Elevation Kelly Bushings	1593
Company Representative	DEAN PATTISON
Testing Engineer	GENE BUDIG

Extra Equipment

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

Well Information

Drilling Contractor	DUKE DRILLING RIG #2
Drill Pipe Length	4116
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	
Drill Collar I.D.	2.25
Tool Joint Size	4 1/2 X.H.
Mud Weight #/gal	9.20
Viscosity	40.00
Water Loss	10.4
Chlorides - Pits	5,000
Chlorides - DST	46000

SUPERIOR TESTERS ENTERPRISES INC.
DRILL STEM TEST REPORT

GREAT BEND,KANSAS (316)792-6902

Tool Setting Information

Top Packer Depth	4130
Bottom packer Depth	4135
Number of Packers	2
Packer Size	6 3/4
Test Interval (from)	4135
Test Interval (to)	4150.00
Anchor Length	15
Total Depth (ft)	4150
Hole Size (in)	7 7/8

Pressure Readings

	Field Reading	*Office Reading*
Maximum Temp	130	
Initial Hydrostatic Pressure	2024	
Initial Flow Pressure	50	
Final Initial Flow Pressure	42	
Initial Shut-In Pressure	1330	
Initial Final Flow Pressure	42	
Final Flow Pressure	90	
Final Shut-In Pressure	1373	
Final Hydrostatic Pressure	19933	
Mechanical Recorder Depth (ft)	4147	
Recorder Number	11087	
Electronic Recorder Depth	4143	
Recorder Number	78225	

Comments

SUPERIOR TESTERS ENTERPRISES INC.
DRILL STEM TEST REPORT

GREAT BEND,KANSAS (316)792-6902

Flow Times

Initial Open

Tool Open (from) 8:30
Tool Open (to) 8:45
Duration (min) 15

Initial Shut-in

Tool Closed (from) 8:45
Tool Closed (to) 9:15
Duration (min) 30

Final Open

Tool Open (from) 9:15
Tool Open (to) 10:15
Duration (min) 60

Final Shut-in

Tool Closed (from) 10:15
Tool Closed (to) 11:45
Duration (min) 90

Recovery Description

Initial Blow ..... STRONG BLOW-BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 10 SECONDS

Final Blow ..... STRONG BLOW-GAS TO SURFACE IN 5 MINUTES-SEE GAS FLOW REPORT

Description	*Feet of Recovery*	*% Gas*	*%Oil*	*%Mud*	*% Water*
1) SLIGHTLY GAS CUT MUDDY WATER	150				
2) CHLORIDES 96000					
3)					
4)					
5)					
6)					
7)					
8)					
9)					
10)					
11)					
12)					
13)					
14)					
15)					
Total	150				

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND,KANSAS | GAS FLOW RATE | (316) 792-6902

HARRISSON #1-15 MISSISSIPPI

State ..... KANSAS	***Test Date*** ..... June 3, 1997
County ..... KINGMAN	***Sec Town Range*** ..... N/W S/E N/E 15-29S-7W
Field	***Report Number*** 11642

Initial Flow

Comments	Time (hh:mm:ss)	Period dt (min)	Inches H20 Orfice Tester	PSI on Orfice Tester	PSI on Pitot Tube	Choke Size (in)	Gas Rate (MCF/Day)

Final Flow

Comments	Time (hh:mm:ss)	Period dt (min)	Inches H20 Orfice Tester	PSI on Orfice Tester	PSI on Pitot Tube	Choke Size (in)	Gas Rate (MCF/Day)
GAS TO	9:20	5	12			0.50	21.900
SURFACE 5	9:25	10	6			0.50	15.400
MINUTES INTO	9:35	20	14			0.38	13.400
THE 2ND	9:45	30	12			0.38	12.400
OPENING	9:55	40	10			0.38	11.300
AT 9:20	10:05	50	8			0.38	10.100
	10:15	60	6			0.38	8.740

Field :		**Date :**	04-Jun-97 01:51:37
County or Parish :		**Analysis Period :**	END FLOW - 2ND SHUT-IN
State :		**Identifier :**	Line #

Superposition Slope -> m'	N/A
Horner Slope -> m	-5.126785E+7
Intercept	1.906E+8
P(dt=1 hr)	1.722E+8
Pwf	1.378E+7
R Sqr	0.9943
Intercept (psi)	1537.600
k (md)	0.01647
kh (md-ft)	0.16465
k/u (md/cp)	0.78781
kh/uB (md-ft/cp)	7.87809
Skin	2.6046
DP Skin	815.6729
Total DP	1446.9730
Percent DP	56.37%
Radius Invest (ft)	3
Radius Time (hrs)	1.46
Delta Q =	9
h (ft)=	10
mu (cp) =	0.0209
B (stb/scf) =	0.0016
First Point #	113
Second Point #	298
Start Real Time	0.342
End Real Time	1.374
Start SF Time	0.676

SUPERIOR TESTERS ENTERPRISES I

GREAT BEND,KANSAS

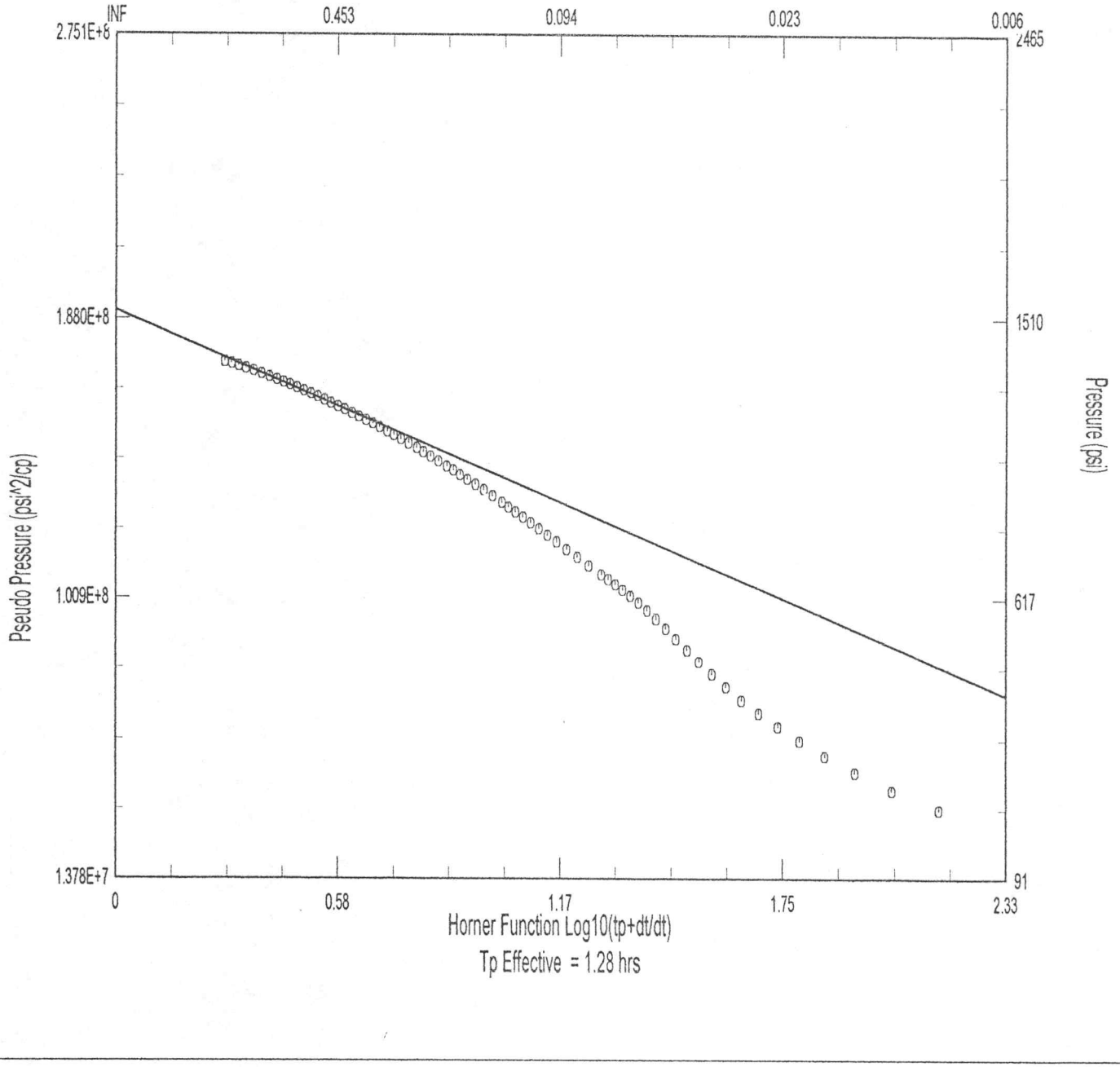
SEMI-LOG ANALYSIS

(316) 792-6902

2ND SHUT-IN

State ..... KANSAS
County ..... KINGMAN
Field .....

Test Date ..... June 3, 1997
Sec Town Range ..... N/W S/E N/E 15-29S-7W
Report Number 11642

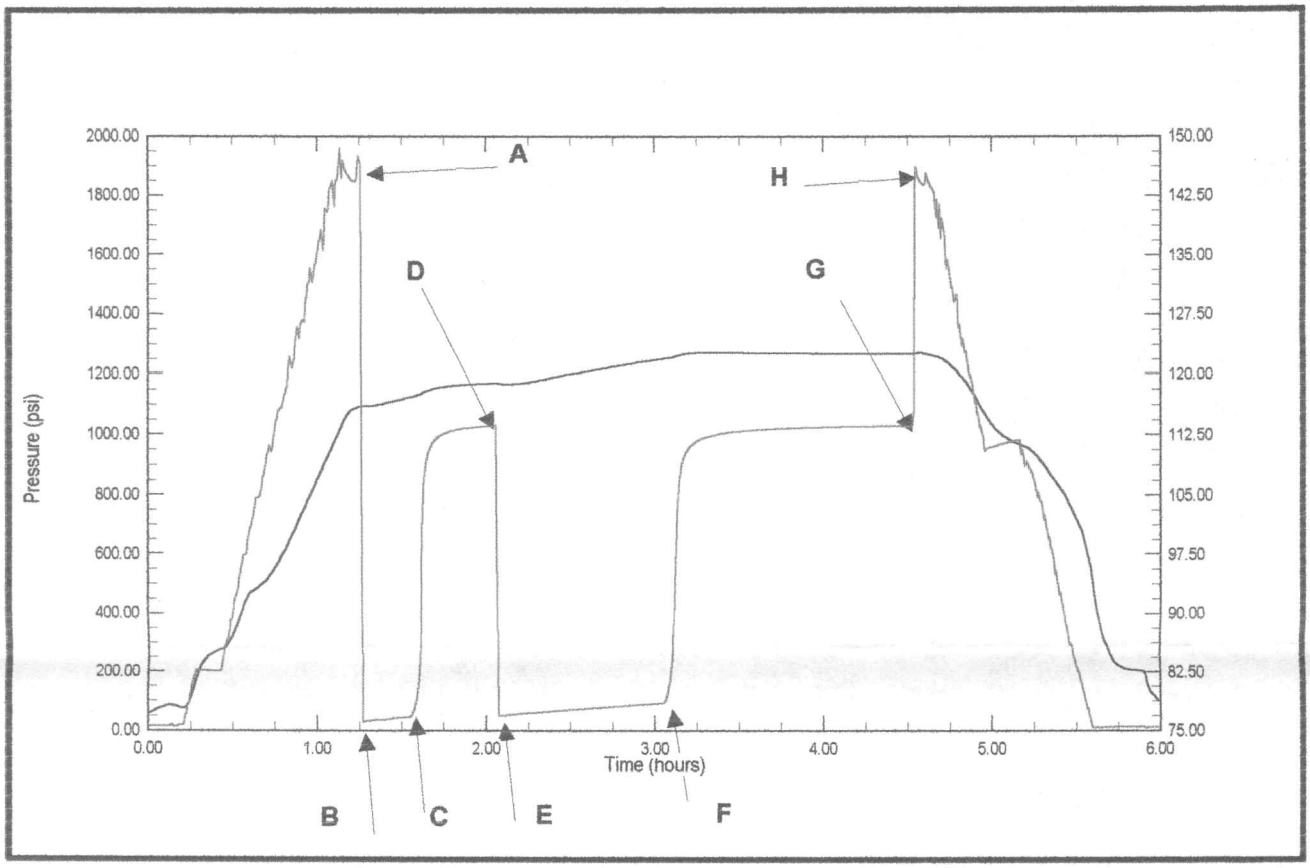


SUPERIOR TESTERS ENTERPRISES INC.

Great Bend, Kansas | **CHART DATA** | (316) 792-6902

HARRISON #1-15 KANSAS CITY"HERTHA"

State ..... KANSAS	***Test Date*** ..... June 4, 1997
County	***Sec Town Range*** ..... N/W-S/E-N/E 15-29S-7
Field	***Report Number*** 11643



	Field Reading	Office Reading
(A) ial Hydrostatic Pressure	1911	psi
(B) Initial Flow Pressure	28	psi
(C) nal Initial Flow Pressure	46	psi
(D) Initial Shut-In Pressure	1029	psi
(E) itial Final Flow Pressure	47	psi
(F) Final Flow Pressure	91	psi
(G) Final Shut-In Pressure	1029	psi
(H) ıal Hydrostatic Pressure	1837	psi

Mechanical Recorder Depth 4207 ft, Recorder Number 11088

Company BISON PRODUCTION COMPANY Lease & Well No. KANSAS CITY "HERTHA" Test #: 2 Date: 6-4-1997
Sec. 15 TWP.29S RGE. 7W

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	BISON PRODUCTION COMPANY
Lease and Well Number	HARRISON #1-15
Formation Tested	KANSAS CITY"HERTHA"
Test Number	2
State	KANSAS
County	KINGMAN
Field	
Test Date	4-Jun-97
Section Town Range	N/W-S/E-N/E 15-29S-7W
Report Number	11643
Elevation Ground Level	1585
Elevation Kelly Bushings	1593
Company Representative	DEAN PATTISON
Testing Engineer	GENE BUDIG

Extra Equipment

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

Well Information

Drilling Contractor	DUKE DRILLING RIG #2
Drill Pipe Length	3752
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	
Drill Collar I.D.	2.25
Tool Joint Size	4 1/2 X.H.
Mud Weight #/gal	9.20
Viscosity	40.00
Water Loss	10.4
Chlorides - Pits	5,000
Chlorides - DST	83000

SUPERIOR TESTERS ENTERPRISES INC.
DRILL STEM TEST REPORT

GREAT BEND,KANSAS (316)792-6902

Tool Setting Information

Top Packer Depth	3772
Bottom packer Depth	3790
Number of Packers	2
Packer Size	6 3/4
Test Interval (from)	3772
Test Interval (to)	3790.00
Anchor Length	18
Total Depth (ft)	4210
Hole Size (in)	7 7/8

Pressure Readings

	Field Reading	*Office Reading*
Maximum Temp	122	
Initial Hydrostatic Pressure	1911	
Initial Flow Pressure	28	
Final Initial Flow Pressure	46	
Initial Shut-In Pressure	1029	
Initial Final Flow Pressure	47	
Final Flow Pressure	91	
Final Shut-In Pressure	1029	
Final Hydrostatic Pressure	1837	
Mechanical Recorder Depth (ft)	4207	
Recorder Number	11088	
Electronic Recorder Depth	3778	
Recorder Number	78225	

Comments

SUPERIOR TESTERS ENTERPRISES INC.
DRILL STEM TEST REPORT

GREAT BEND,KANSAS (316)792-6902

Flow Times

Initial Open

Tool Open (from) 4:00
Tool Open (to) 4:15
Duration (min) 15

Initial Shut-in

Tool Closed (from) 4:15
Tool Closed (to) 4:45
Duration (min) 30

Final Open

Tool Open (from) 4:45
Tool Open (to) 5:45
Duration (min) 60

Final Shut-in

Tool Closed (from) 5:45
Tool Closed (to) 7:15
Duration (min) 90

Recovery Description

Initial Blow ..... WEAK BUILDING BLOW BUILT TO 2 1/2 INCHES INTO THE WATER

Final Blow ..... WEAK BUILDING BLOW BUILT TO 6 1/2 INCHE INTO THE WATER

Description	Feet of Recovery	% Gas	%Oil	%Mud	% Water
1) SLIGHTLY MUDDY WATER	150				
2) CLEAN OIL	0.50				
3)					
4)					
5)					
6)					
7)					
8)					
9)					
10)					
11)					
12)					
13)					
14)					
15)					
Total	150.5				