

ORIGINAL

FORM MUST BE TYPED

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License# 31832

Name: BISON PRODUCTION COMPANY

Address: 8320 E. CENTRAL

City/State/Zip: WICHITA, KS 67206

Purchaser: Warren NGL, Koch Oil Co.

Operator Contact Person: C. J. Lett, III

Phone (316) 636-1801

Contractor: Name: Duke Drilling Co., Inc.

License: 5929

Wellsite Geologist: DEAN PATTISSON

Designate Type of Completion

New Well Re-Entry Workover

Oil SWD SLOW Temp Abd.

Gas ENHR SIGW

Dry Other (Core, WSW, Expl., Cathodic, etc.)

If Workover/Re-Entry: old well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

Deepening _____	Re-perf. _____	Conv. to Inj/SWS _____
Plug Back _____	PBTD _____	
Commingled _____	Docket No. _____	
Dual Completion _____	Docket No. _____	
Other (SWD or Inj?) _____	Docket No. _____	

12-01-97 _____	12-06-97 _____	12-07-97 _____
Spud Date	Date Reached TD	Completion Date

SIDE ONE

API NO. 15-077-21345-0000

County: HARPER

NE NE 3/4-Sec. 15 Twp. 31S Rge. 8W

2310' Feet from S/N (circle one) Line of Section

2310' Feet from E/W (circle one) Line of Section

Footage Calculated from Nearest Outside Section Corner:
NE,SE,NW or SW (circle one)

Lease Name: CRAMER Well #: 1-15

Field Name: SPIVEY - GRABS

Producing Formation: MISSISSIPPI

Elevation: Ground: 1805' KB 1613'

Total Depth 4405' PBD 4450'

Amount of Surface Pipe Set and Cemented 224 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ Feet

If Alternate # completion, cement circulated from _____

feet depth to _____ w/ _____ sx cmt.

Drilling Fluid Management Plan Att'd 6-15-98 U.C.
(Data must be collected from the Reserve Pit)

Chloride content 36,000 ppm Fluid volume 1,200 bbls.

Dewatering method used HAULED OFF WATER - ALLOW TO DRY - AND BACKFILL

Location of fluid disposal if hauled offsite:

Operator Name: JODY OIL & GAS

Lease Name SANDERS SWD License No. 3288

Quarter Sec. 20 Twp. 31 S Rng. 8 W

County HARPER Docket No. D23313

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market, Rm 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature [Signature]

Title Steven C. Anderson, Vice President Date 03-03-98

Subscribed and sworn to before me this 3rd day of March, 1998.

Notary Public [Signature]

Date Commission Expires 04-14-2001

K.C.C. OFFICE USE ONLY		
F	Letter of Confidentiality Attached	
C	Wireline Log Received	
C	Geologist Report Received	
Distribution		
<input checked="" type="checkbox"/>	KCC	SWD/Rep
<input type="checkbox"/>	KGS	Plug
<input type="checkbox"/>		NGPA
<input type="checkbox"/>		Other
(Specify)		

JO ANN THADEN
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 12-14-98

3-4-98

Form ACO-1 (7-91)

JAN 3 1980

Operator Name BISON PRODUCTION COMPANY Lease Name CRAMER Well # 1-15

Sec. 15 Twp. 31S Rge. 8 East West

County HARPER

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No
(Attach Additional Sheets)

Samples Sent to Geological Survey Yes No

Cores Taken Yes No

Electric Log Run Yes No

List All E. Logs Run: Comp Neutron Density, Dual Induction, Cement Bond

Log Formation (Top), Depth and Datum Sample

Name	Top	Datum
Pawnee LS	4245	-2624
Labette Sh.	4275	-2654
Cherokee Gp.	4286	-2665
Miss. Osage Chert	4392	-2771

CASING RECORD

New Used

Report all strings set-conductor, surface, intermediate production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12-1/4"	8-5/8"	20#	224'	60/40 Poz	175	3% gel, 2% cc
Production	7-7/8"	5-1/2"	14#	4405'	ACS	100	5#Goseal, 1/4# sk floreal 4% gel

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth		Type of Cement	#Sacks Used	Type and Percent Additives
	Top	Bottom			
Perforate					
Protect Casing					
Plug Back TD					
Plug Off Zone					

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type		Acid, Fracture, Shot, Cement Squeeze Record				
	Specify Footage of Each Interval Perforated		(Amount and Kind of Material Used)	Depth			
4	4396-4407'		51,030 gal acid & 48,500# sand	4407'			
TUBING RECORD		Size	Set At	Packer At	Liner Run	[] Yes [x] No	
		2-7/8"	4214.63'				
Date of First, Resumed Production, SWD or Inj.		Producing Method		Gas Lift		[] Other Explain	
12-21-87		<input checked="" type="checkbox"/> Flowing [] Pumping []					
Estimated Production Per 24 Hours		Oil Bbls	Gas Mcf	Water Bbls	Gas-Oil Ratio	Gravity	
		23.36	34.8		1490		

Disposition of Gas:
 Vented Sold Used on Lease
 (If vented, submit ACO-18.)

METHOD OF COMPLETION
 Open Hole Perf. Dually Comp. Comingled
 Other (Specify) _____

Production Interval
4396-4407'

ALLIED CEMENTING CO., INC.

5780

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

file ORIGINAL

SERVICE POINT:
Medicine Lodge

DATE <i>12-01-97</i>	SEC. <i>15</i>	TWP. <i>31S</i>	RANGE <i>8W</i>	CALLED OUT <i>4:30</i>	ON LOCATION <i>5:30</i>	JOB START <i>8:05</i>	JOB FINISH <i>8:25</i>
LEASE <i>Cramer</i>	WELL# <i>1-15</i>	LOCATION <i>Mag Plant 2E, 1S, 1/2E 7/8</i>			COUNTY <i>Harper</i>	STATE <i>Kansas</i>	
OLD OR NEW (Circle one)							

CONTRACTOR *Duke Rig 2*
 TYPE OF JOB *Surface*
 HOLE SIZE *12 3/4* T.D. *225*
 CASING SIZE *8 3/8 x 24"* DEPTH *224.43*
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX *150* MINIMUM *100*
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. *1.5 feet*
 PERFS.

OWNER *Bison Production Co.*
CEMENT

AMOUNT ORDERED *175 x 60:40:2 + 36cc*

COMMON <i>A</i>	<i>105</i>	@ <i>6.35</i>	<i>666.75</i>
POZMIX	<i>70</i>	@ <i>3.25</i>	<i>227.50</i>
GEL	<i>3</i>	@ <i>9.50</i>	<i>28.50</i>
CHLORIDE	<i>6</i>	@ <i>28.00</i>	<i>168.00</i>
		@	
		@	
		@	
		@	
		@	
HANDLING	<i>175</i>	@ <i>1.05</i>	<i>183.75</i>
MILEAGE	<i>175 x 30</i>	<i>.04</i>	<i>210.00</i>

EQUIPMENT

PUMP TRUCK CEMENTER *Carl Balding*
 #*255-265* HELPER *Stane Winsor*
 BULK TRUCK
 #*242* DRIVER *James Holt*
 BULK TRUCK
 # DRIVER

TOTAL *\$1484.50*

REMARKS:

SERVICE

*Breaks circulation with rig pump
 Dump 5 bags fresh water*

DEPTH OF JOB *224'*
 PUMP TRUCK CHARGE

ALLIED CEMENTING CO., INC.

6558

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

ORIGINAL

SERVICE POINT:
msd lodges, ks

DATE 12-7-97	SEC. 15	TWP. 36S	RANGE 8W	CALLED OUT 12:00A.M.	ON LOCATION 5:00A.M.	JOB START 9:00AM	JOB FINISH 9:50 AM
LEASE Cramer	WELL # 1-15	LOCATION Maq Plant 2E-1S-1/2E			COUNTY Harper	STATE KS.	

OLD OR NEW (Circle one)

CONTRACTOR Duke Drig. #2

TYPE OF JOB Prod. Csg.

HOLE SIZE 7 7/8 T.D. 4407'

CASING SIZE 5 1/2 x 14 DEPTH 4406

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT 29.30

CEMENT LEFT IN CSG.

PERFS.

OWNER Bison Prod Co.
CEMENT

AMOUNT ORDERED	<u>300 qals. mud-Sweep</u>		
	<u>255XS. 60/40/4% Gel</u>		
	<u>100XS. ASC + 5# Kol-Seal</u>		
COMMON A	<u>15</u>	@	<u>6.35</u> <u>95.25</u>
POZMIX	<u>10</u>	@	<u>3.25</u> <u>32.50</u>
GEL	<u>1</u>	@	<u>9.50</u> <u>9.50</u>
CHLORIDE		@	
	<u>ASC 100</u>	@	<u>8.20</u> <u>820.00</u>
	<u>KOL-SEAL 500#</u>	@	<u>.38</u> <u>190.00</u>
	<u>MUD SWEEP 300 gal</u>	@	<u>1.80</u> <u>540.00</u>
		@	
		@	
HANDLING	<u>125</u>	@	<u>1.05</u> <u>131.25</u>
MILEAGE	<u>125 x 30</u>		<u>.04</u> <u>150.00</u>

EQUIPMENT

PUMP TRUCK CEMENTER Harry Oreiling

233-302 HELPER Justin Hart

BULK TRUCK

301 DRIVER James Holt

BULK TRUCK

DRIVER

TOTAL \$1968.50

REMARKS:

Dipe on Bottom - Rotate Break Circ.
Release Bottom Plug - Start 28ds

SERVICE

DEPTH OF JOB 4406'

Superior Testers Enterprises, Inc.

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

(316) 792-6902

Date 12-6-1997 Location 1/2-1/2-S 15-31-8W Elevation 1613GL County HARPER

Company Bison Production Company Number of Copies 5

Charts Mailed to 9320 East Central Wichita Kansas 67206

Drilling Contractor Duke Drilling Rig #2

Length Drill Pipe 4363 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 NONE I.D. Drill Collars NONE Tool Joint Size NONE

Top Packer Depth 4387 Bottom Packer Depth 4392 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 4392 TO 4406 ANCHOR LENGTH 14 TOTAL DEPTH 4406 Hole Size 7 7/8"

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

Mud Weight 9.3 Viscosity 50 Water Loss 10% Chlorides - Pits 4000 D.S.T. _____

Maxlimum Temp. 117 °F Initial Hydrostatic Pressure (A) 2194 P.S.I. Final Hydrostatic Pressure (H) 2072 P.S.I.

Tool Open I.F.P. from 1:00 P.m to 1:15 P.m 15 min

Tool Closed I.C.I.P. from 1:15 P.m to 1:45 P.m 30 min

Tool Open F.F.P. from 1:45 P.m to 2:15 P.m 30 min

Tool Closed F.C.I.P. from 2:15 P.m to 3:45 P.m 90 min

Initial Blow Steam blow - built to the bottom of a 5 Gallon bucket in 15 SECONDS

Final Blow Steam blow - GAS TO SURFACE IN 1 minute - SEE GAS FLOW REPORT

Total Feet Recovered 45 Gravity of Oil _____ Corrected _____

45 Feet of Drilling mud with a slight show of % Gas _____ % Oil _____ % Mud _____ % Water _____

Feet of oil between the shut-in & hydrolic tank % 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 _____

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 4399 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 5463 Clock No. 47441 Depth 4403 Insurance NONE

Price of Job _____

Tool Operator Steve Audig

Approved By _____
No 11671

from [B] <u>36</u> P.S.I. to [C] <u>41</u> P.S.I.
[D] <u>1209</u> P.S.I.
from [E] <u>68</u> P.S.I. to [F] <u>49</u> P.S.I.
[G] <u>1203</u> P.S.I.

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

CRAMER #1-15 MISSISSIPPI

State KANSAS

Test Date December 6, 1997

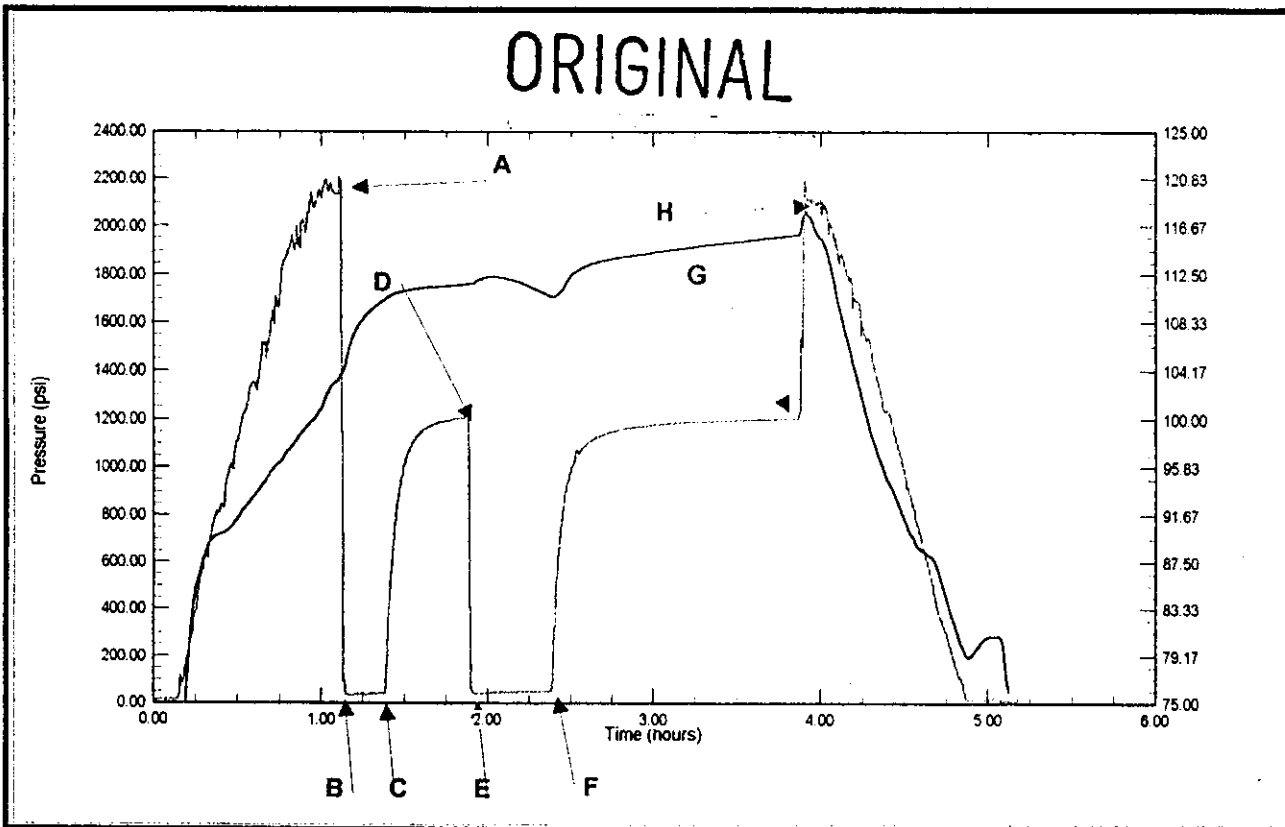
County

Sec Town Range N/E-N/E-SW 15-31S-8

Field

Report Number 11671

ORIGINAL



Field Reading

Office Reading

(A)	Initial Hydrostatic Pressure	2194	psi
(B)	Initial Flow Pressure	36	psi
(C)	Final Initial Flow Pressure	41	psi
(D)	Initial Shut-In Pressure	1209	psi
(E)	Initial Final Flow Pressure	68	psi
(F)	Final Flow Pressure	49	psi
(G)	Final Shut-In Pressure	1203	psi
(H)	Final Hydrostatic Pressure	2072	psi

ELECTRONIC REECORDER DEPTH4399ft,RECORDER NUMBER78225

Company: **BISON PRODUCTION COMPANY** Lease & Well No. **CRAMER #1-15** Test #: **1** Date: **12-6-1997**
 SEC. 15 **TWP. 31S** **RGE. 8W** **15-077-21345**

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 PRDUCTION COMPANY
Lease and Well Number CRAMER #1-15
Formation Tested MISSISSIPPI
Test Number 1
State KANSAS
County HARPER
Field
Test Date 6-Dec-97
Section Town Range N/E-N/E-S/W 15-31S-8W
Report Number 11671
Elevation Ground Level 1613
Elevation Kelly Bushings 1621
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 4313
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 9.30
Viscosity 50.00
Water Loss 10
Chlorides - Pits 4,000
Chlorides - DST

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS (316)792-6902

Tool Setting Information

Top Packer Depth 4387
Bottom packer Depth 4392
Number of Packers 2
Packer Size 6 3/4

Test Interval (from) 4392
Test Interval (to) 4406.00
Anchor Length 14
Total Depth (ft) 4406
Hole Size (in) 7 7/8

Pressure Readings

	<i>Field Reading</i>	<i>Office Reading</i>
Maximum Temp	117	
Initial Hydrostatic Pressure	2194	
Initial Flow Pressure	36	
Final Initial Flow Pressure	41	
Initial Shut-In Pressure	1209	
Initial Final Flow Pressure	68	
Final Flow Pressure	49	
Final Shut-In Pressure	1203	
Final Hydrostatic Pressure	2072	
Electronic Recorder Depth	4399	
Recorder Number	78225	
Mechanical Recorder Depth	4403	
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) 1:00
 Tool Open (to) 1:15
 Duration (min) 15

Initial Shut-in

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

Final Open

Tool Open (from) 1:45
 Tool Open (to) 2:15
 Duration (min) 30

Final Shut-in

Tool Closed (from) 2:15
 Tool Closed (to) 3:45
 Duration (min) 90

Recovery Description

Initial Blow STRONG BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 15 SECONDS-NO GAS

Final Blow STRONG BLOW-GAS TO SURFACE IN 1 MINUTE
 SEE GAS FLOW REPORT

Description	Feet of Recovery	% Gas	% Oil	% Mud	% Water
1) DRILLING MUD WITH A SLIGHT SHOW OF OIL	45				
2) BETWEEN THE SHUT-IN AND HYDROLIC TOOLS					
3)					
4)					
5)					
6)					
7)					
8)					
9)					
10)					
11)					
12)					
13)					
14)					
15)					
Total	45				

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND, KANSAS

GAS FLOW RATE

(316) 792-6902

CRAMER #1-15 MISSISSIPPI

State KANSAS

Test Date December 6, 1997

County HARPER

Sec Town Range N/E-N/E-S/W 15-31S-8W

Well ID

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)

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	1:50	5	72			1/2	53.900
AT 1:45	2:00	15	68			1/2	51.700
WITH GAS TO	2:10	25	84			1/2	57.400
SURFACE IN 1 MINUTE	2:15	30	90			1/2	59.500

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND, KANSAS

SUPERPOSITION ANALYSIS

(316) 792-6902

2ND SHUT-IN

State KANSAS

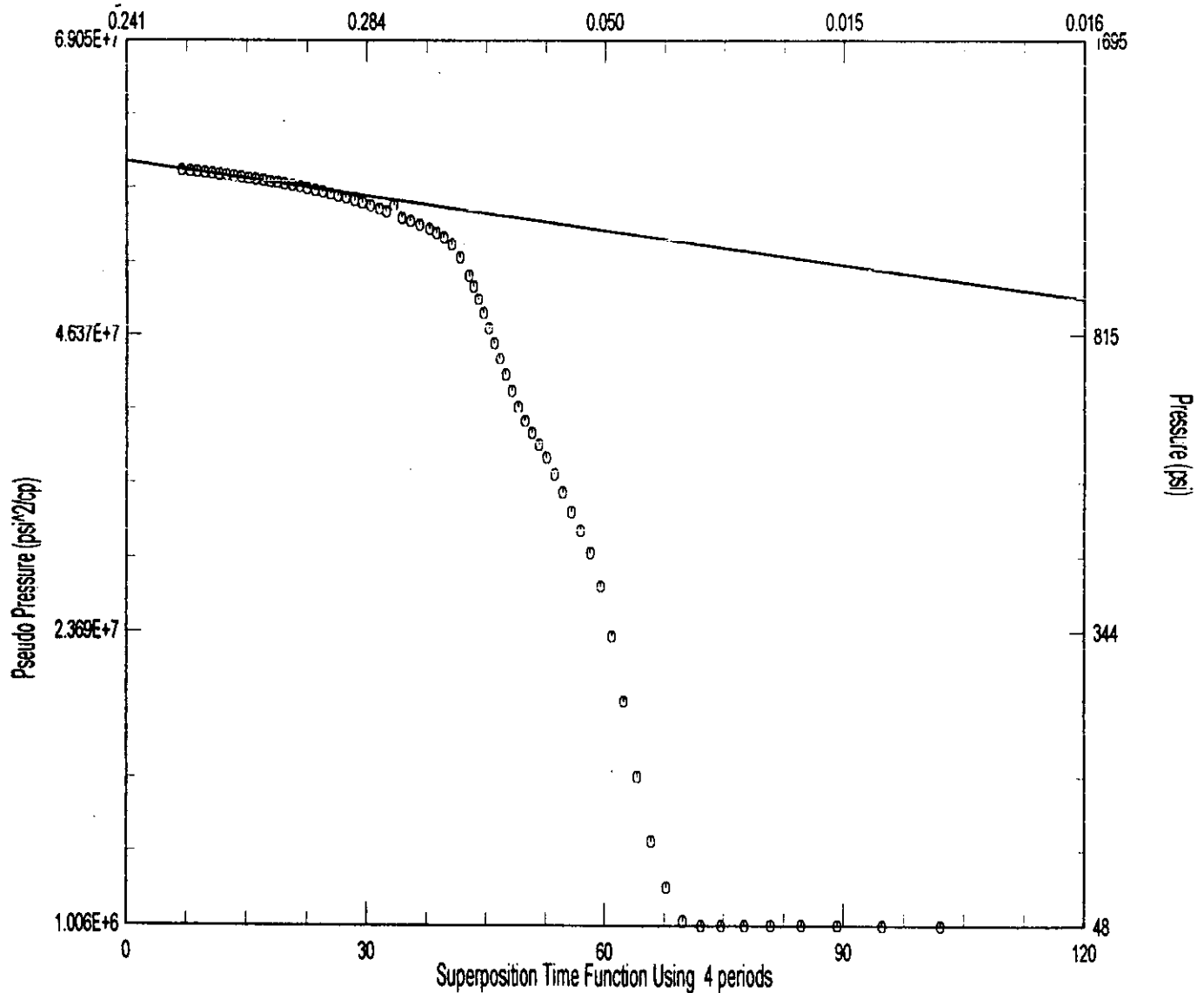
Test Date December 6, 1997

County HARPER

Sec Town Range N/E-N/E-S/W 15-31S-8W

Field

Report Number 11671



Field :
County or Parish :
State :

Date : 06-Dec-97 17:52:07
Analysis Period : END FLOW - 2ND SHUT-IN
Identifier : Line #

Superposition Slope -> m' -87806.750000
Horner Slope -> m -5.224502E+6
Intercept 5.974E+7
P(dt=1 hr) 5.888E+7
Pwf 1.006E+6
R Sqr 0.9909

Intercept (psi) 1236.270
k (md) 0.76837
kh (md-ft) 10.75713
k/u (md/cp) 111.35750
kh/uB (md-ft/cp) 1559.00499
Skin 6.9288
DP Skin 460.4957
Total DP 1188.5311
Percent DP 38.74%

Radius Invest (ft) 1766
Radius Time (hrs) 1.51

Delta Q = 60
h (ft)= 14
mu (cp) = 0.0069
B (stb/scf) = 0.0239

First Point # 112
Second Point # 300
Start Real Time 0.339
End Real Time 1.506
Start SF Time 22.122