CONFIDENTIAL

PERMIAN TESTERS INC.

PERMIAN TESTERS, INC.

P.O. BOX 14228
ODESSA, TEXAS 79768

BF 25-1

12,380-453

COMMISSION
OIL CONSERVATION [redacted]

CASE NUMBER _____

Ocean EXHIBIT 14

Drill Stem Test Report

Permian Testers, Inc.

Since 1962

Quality drillstem testing services in the Permian Basin region.
Offering conventional and straddle testing.

Drill Stem Test Reporting
And Analysis by:
Michael Hudson

TMBR000453

Toll Free (877) 505-8540
Website: *datareporting.net*

DRILL STEM TEST REPORT DATA

BOTTOM HOLE CHOKE	5/8"	SURFACE	3/8"	CUSHION		ELEVATION	3959'	G.L.
TIME TOOL OPENED	08:05 Hrs				RECORDER DATA			
TOOL OPEN BEFORE I.S.I.P.			15	MIN.	TYPE	Electronic	CAPACITY	10000
INITIAL SHUT - IN	1	HRS.	0	MIN.	TOP	21058	DEPTH	12389
TOOL OPEN	1	HRS.	15	MIN.	BOTTOM	13832	DEPTH	12450
FINAL SHUT - IN	4	HRS.	0	MIN.	CLOCK : TOP		BOTTOM	24

SURFACE ACTION: Pre-Flow: Began with a strong blow, increased to 50.0 psi in 5 minutes; opened to pit on a 3/8" choke in 10 minutes; 80.0 psi in 12 minutes with gas to surface, 100.0 psi in 15 minutes = 338.0 MCFD.
Final Flow: Began with a strong blow, increased to 55.0 psi in 5 minutes, 104.0 psi in 10 minutes, 153.0 psi in 20 minutes, 194.0 psi in 30 minutes, 225.0 psi in 40 minutes = 790.0 MCFD, 255.0 psi in 50 minutes = 880.0 MCFD, 280.0 psi in 60 minutes = 940.0 MCFD, 310.0 psi in 75 minutes = 1050.0 MCFD.

RECOVERY: 625' Total fluid = 3.06 bbl., consisting of:
145' Free oil = 0.71 bbl. (gravity: 50.5 Deg API @ 60 Deg F)
480' Highly oil & gas cut drilling mud = 2.35 bbl. (chlorides: 82,000 ppm)

SUCCESSFUL TEST: Yes

			RECORDER NO. 21058	
A (INITIAL HYDROSTATIC PRESSURE)			6380	P.S.I.
B (INITIAL PRE-FLOW PRESSURE)			208	P.S.I.
C (FINAL PRE-FLOW PRESSURE)	15	MIN.	281	P.S.I.
D (INITIAL SHUT-IN PRESSURE)	60	MIN.	5974	P.S.I.
E (INITIAL FLOW PRESSURE)			421	P.S.I.
F (FINAL FLOW PRESSURE)	75	MIN.	708	P.S.I.
G (FINAL SHUT-IN PRESSURE)	240	MIN.	5997	P.S.I.
H (FINAL HYDROSTATIC PRESSURE)			6416	P.S.I.

HOLE AND MUD DATA

TOTAL DEPTH	12453'	MAIN HOLE	8 3/4"
RAT HOLE		CASING SIZE	9 5/8"
DEPTH OF CSG.	4957'	TYPE MUD	Brine
MUD WT.	9.6	VISCOSITY	38
WATER LOSS	11.0	CAKE	1/32
CHLORIDE	82,000		
RESISTIVITY	.071	@ 60	°F

SAMPLER REPORT

PRESSURE IN SAMPLER	5000			PSI
BHT	186.5			°F
OIL:	150 (distillate)			
WATER:	0			
MUD:	0			
GAS:	3.085			
RESISTIVITY		@		°F
CHLORIDE				PPM.
GRAVITY	50.5	° API @	60	°F

TOOL DATA

NO. PACKERS: 2
SIZE PACKERS: 7 3/4"
CONVENTIONAL TEST: Yes

TYPE TOOL	DEPTH	LENGTH	I.D.	O.D.
4 1/2" XH DP	11522		3.8	4.5
4 1/2" XH DC		790	2.3	6.25
Circulating Sub	12313	1		
Drillcollars	12343	30		
Shut-in Tool	12349	6		
Sampler	12352	3		
Hydraulic Tool	12357	5		
Jars	12363	6		
Recorder	12368	5		
Packer	12374	6		
Packer	12380	6		
Perfs		(		
Elec Recorder		)		
Drillcollars		(		
Bull Plut	TD	73		

DRLG. CONT: TMBR/Sharp Drilling RIG# 24

REMARKS:

TESTER: Don Terhune
APPROVED BY: Lonnie Arnold

COMPANY: [illegible]
LEASE NAME & NO.: BLUEFIN "25" #1
INTERVAL TESTED: 12380' - 12453'
STATE: NEW MEXICO
FORMATION: MORROW SAND
TICKET # 7932
TEST # 3

TMBR/Sharp Drilling, Inc.
Bluefin "25" #1, Dst #3

Comments relative to analysis of the pressure data from well test which was run in the Morrow Sand by Permian Testers, Inc.

This analysis has been prepared on the basis of the gas recovery and equations applicable to gas recovery tests, radial flow analysis techniques and derivative analysis techniques. The character of the pressure curves on the various diagnostic plots indicate a change in slope during the shut-in period. Various models were generated and the most appropriate model appears to be a multi-layered model with two porosity zones present. When other well data is obtained it may be necessary to change the estimated reservoir parameters.

The radial plots indicate a maximum initial reservoir pressure of 6224 psi and a maximum final reservoir pressure of 6278 psi which is equivalent to a subsurface pressure gradient of 0.507 psi/ft at gauge depth.

The Average Production Rate which was used in this analysis is the last gas flow rate which was gauged during the final flowing period.

The calculated Skin Factors indicate no well-bore damage was present at the time of this formation test.

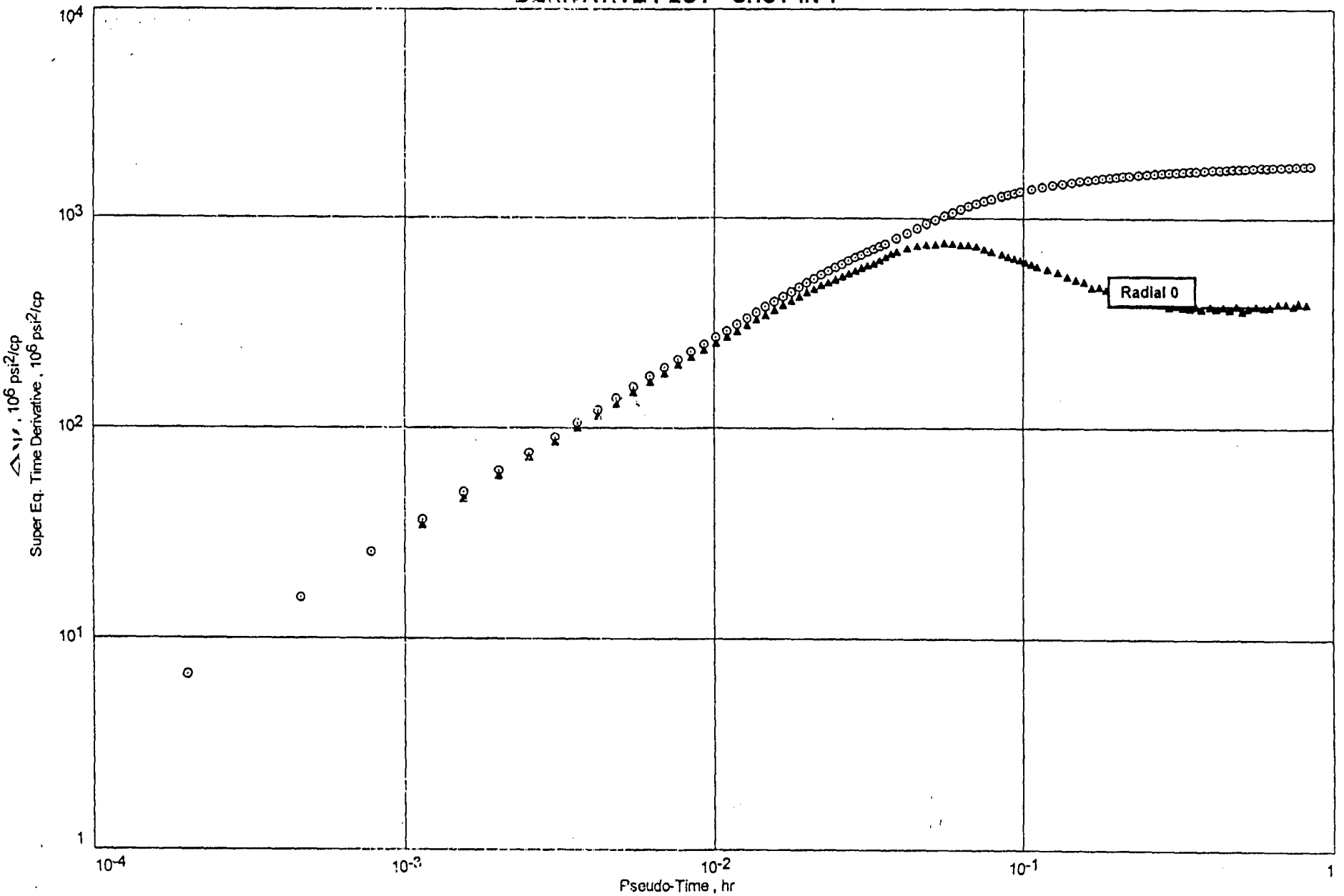
The evaluation criteria used in the drillstem test analysis system indicate this is a good mechanical test and the results obtained in this analysis should be reliable with reasonable limits relative to the assumptions which have been made.

Michael Hudson
Analyst
(877) 505-8540

DRS

TMBR/Sharp Drilling, Inc.
Bluefin "25" 1, Dst 3, Gauge 21058

DERIVATIVE PLOT - SHUT-IN 1



Fast

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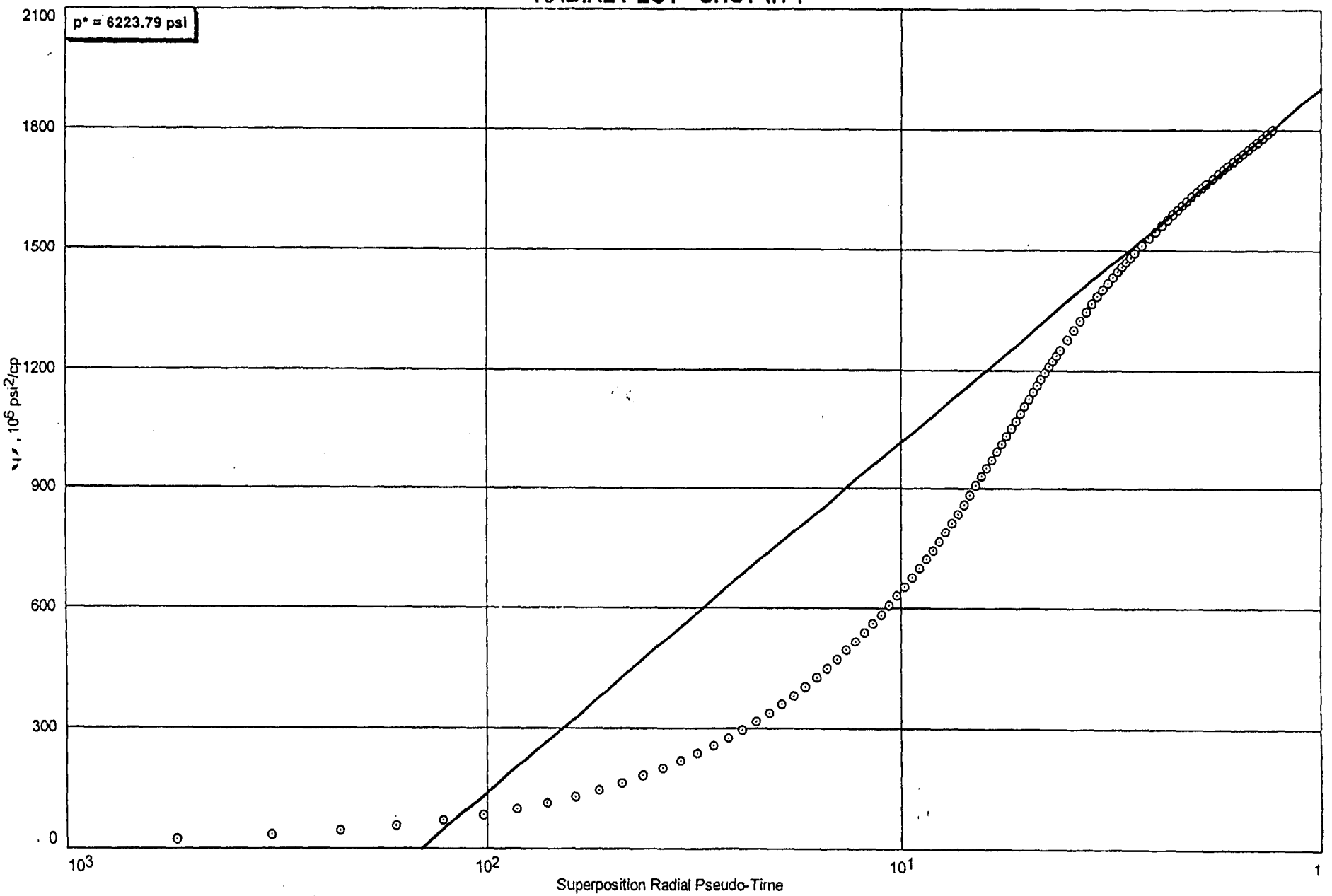
Bluefin "25" 1, Dst 3, Gauge 21058

RADIAL PLOT - SHUT-IN 1



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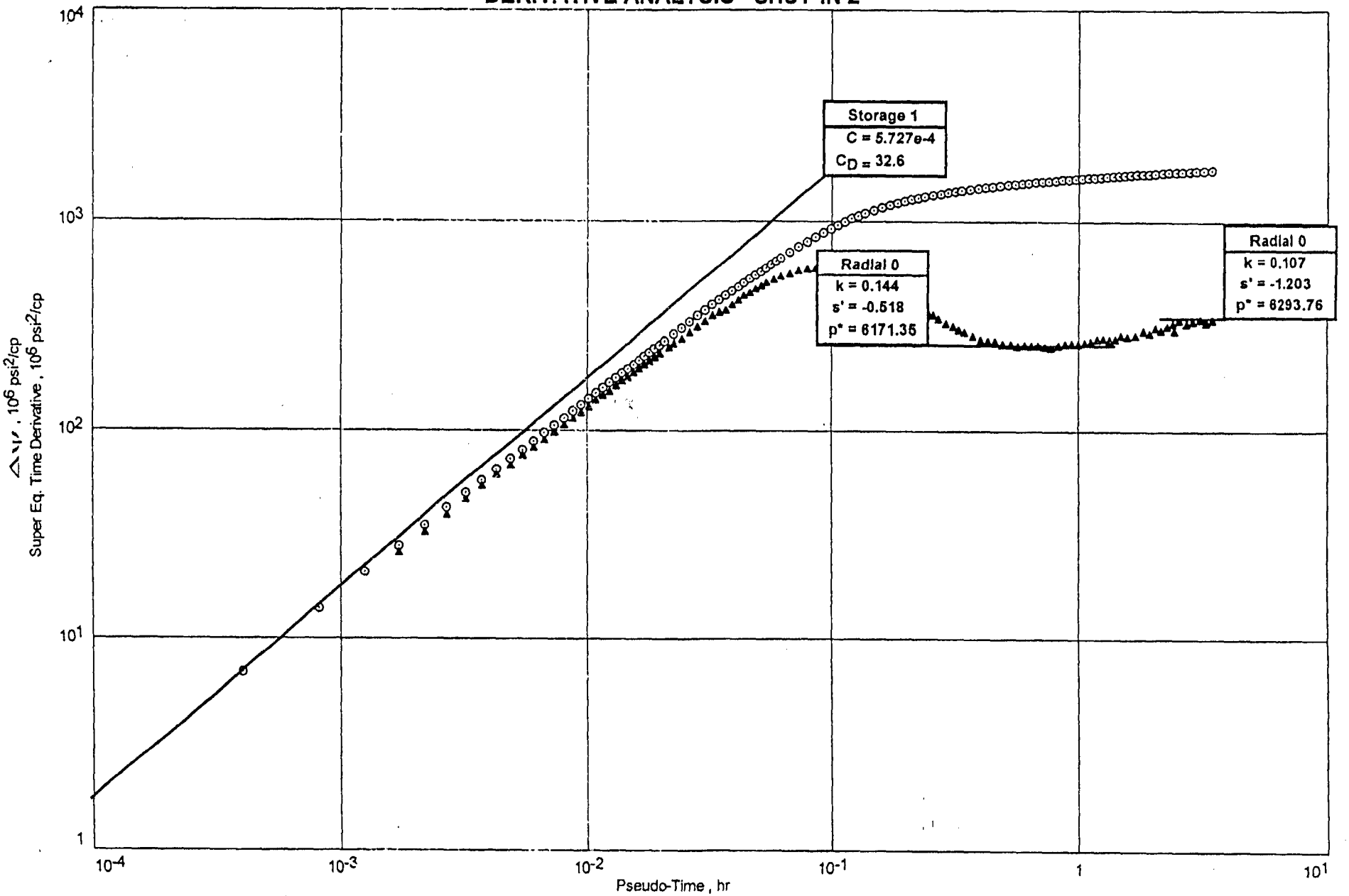
Bluefin "25" 1, Dst 3, Gauge 21058

DERIVATIVE ANALYSIS - SHUT-IN 2



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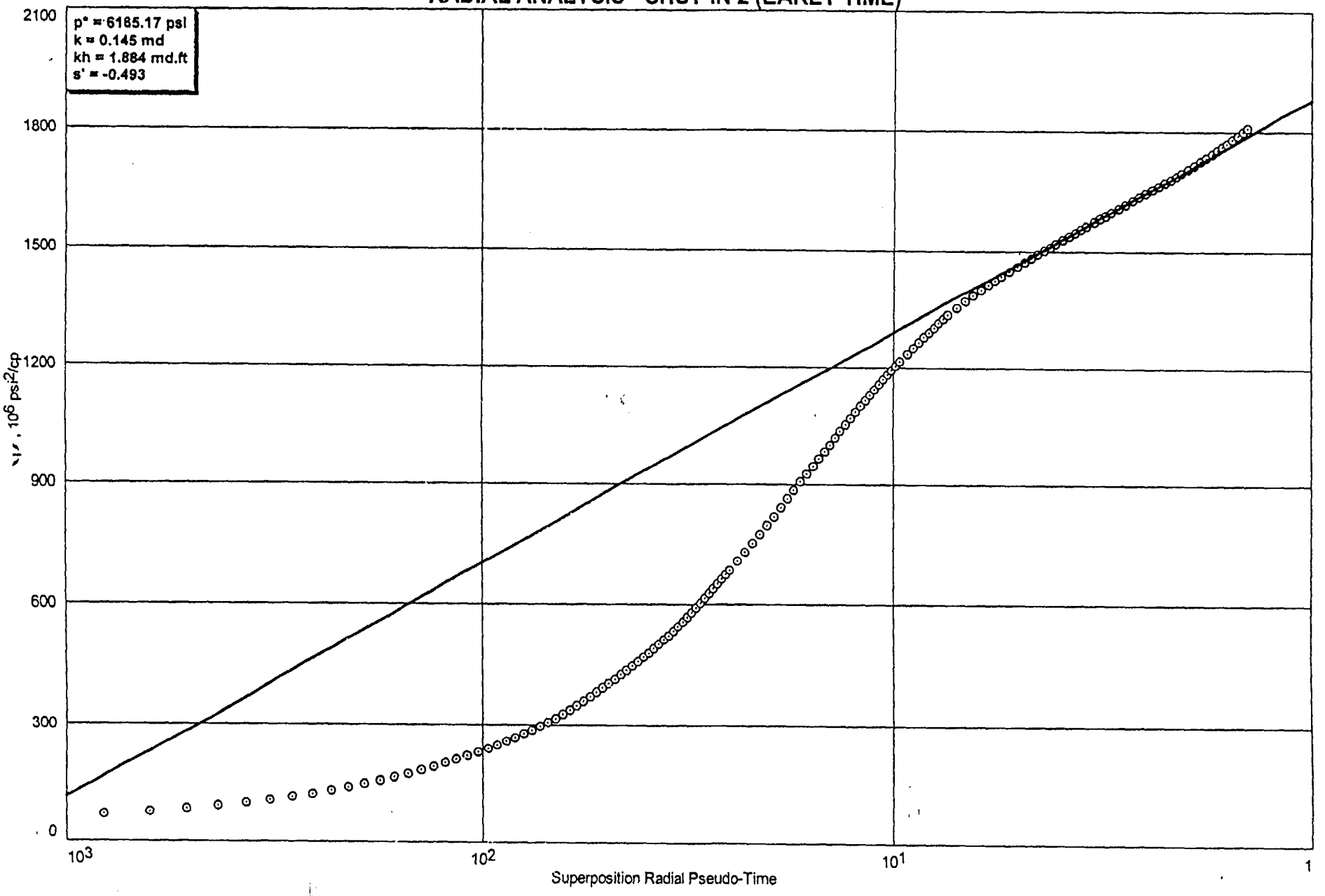
Bluefin "25" 1, Dst 3, Gauge 21058

RADIAL ANALYSIS - SHUT-IN 2 (EARLY TIME)



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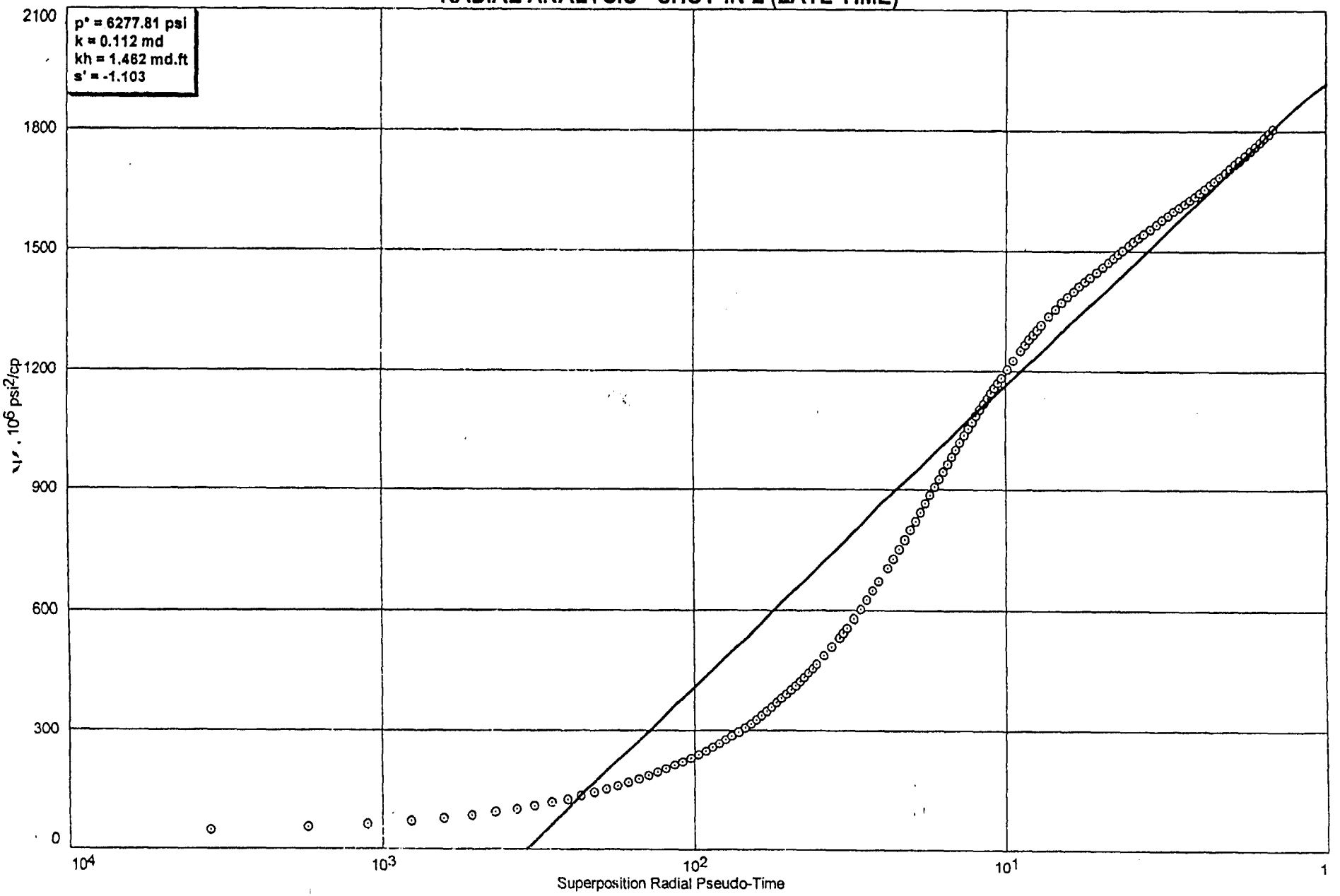
Bluefin "25" 1, Dst 3, Gauge 21058

RADIAL ANALYSIS - SHUT-IN 2 (LATE TIME)



Gas Well Test - Buildup

Radial Flow Analysis From Early Time Data

R1A
1
1

TMBR/Sharp Drilling, Inc.

Bluefin "25" 1, Dst 3, Gauge 21058

Analysis Results

Total Sandface Rate ($q_t B_t$)	609.446 bbl/d
Semilog Slope (m)	587.941
Gas Permeability (k_g)	0.145 md
Flow Capacity (kh)	1.884 md.ft
Total Mobility (k/μ_t)	5.20 md/cp
Total Transmissivity(kh/μ_t)	67.58 md.ft/cp
Apparent Skin (s')	-0.493
Skin - Damage	-0.493
Damage Ratio (DR)	0.875
Flow Efficiency (FE)	1.142

Reservoir Parameters

Net Pay (h)	13.000 ft
Total Porosity (ϕ_t)	12.00 %
Water Saturation (S_w)	20.00 %
Oil Saturation (S_o)	0.00 %
Gas Saturation (S_g)	80.00 %
Wellbore Radius (r_w)	0.36 ft
Formation Temperature (T)	186.5 °F
Formation Compressibility (c_f)	4.508e-6 psi^{-1}
Total Compressibility (c_t)	7.766e-5 psi^{-1}

Fluid Properties

Gas Gravity (G)	0.650
N_2	0.00 %
CO_2	0.00 %
H_2S	0.00 %
Critical Pressure (P_c)	670.91 psi
Critical Temperature (T_c)	373.97 R
PVT Reference Pressure (p_{PVT})	5997.44 psi
Gas Compressibility (c_g)	9.07421e-5 psi^{-1}
Gas Compressibility Factor (z)	1.073
Gas Viscosity (μ_g)	0.0279 cp
Gas Formation Volume Factor (B_g)	0.000580 bbl/scf

Pressures

Initial Pressure (p_i)	5997.44 psi
Extrapolated Pressure (p*)	6165.17 psi
Ave. Reservoir Press	6164.92 psi
Final Flowing Pressure (p_{wfo})	707.58 psi

Production and Times

Corrected Flow Time (t_c)	1.5083 hr
Cumulative Gas Production	0.066 MMCF
Final Gas Rate	1.050 MMCF/D

Extended Rates Calculations

Drainage Area	160.0 acres
Specified Flowing Pressure	707.58 psi
Specified Reservoir Pressure	6164.92 psi
3 - Month Constant Rate	0.519 MMCF/D
6 - Month Constant Rate	0.493 MMCF/D
Stabilized Rate @ Current Skin	0.490 MMCF/D
Stabilized Rate @ Skin of 0	0.460 MMCF/D
Stabilized Rate @ Skin of -4	0.898 MMCF/D

Multi-Layer Gas Well Model

Case Name : Multi-Layered Model

TMBR/Sharp Drilling, Inc.

Bluefin "25" 1, Dst 3, Gauge 21058

TMBR000463

Model Parameters

		Layer 1		Layer 2
Permeability	k_1=	0.095 md	k_2=	0.176 md
Net Pay	h_1=	9.00 ft	h_2=	4.00 ft
Skin	s_1=	-1.000	s_2=	-0.267
Outer Radius	r_{e1}=	31.000 ft	r_{e2}=	17.000 ft
Total Porosity	ϕ_{t1}=	12.00 %	ϕ_{t2}=	12.00 %
Total Compressibility	c_{t1}=	7.76626e-5 psi^{-1}	c_{t2}=	7.76626e-5 psi^{-1}
Viscosity	μ_1=	0.028 cp	μ_2=	0.028 cp
Inter Porosity Coeff	λ_1=	0.0000e0	λ_2=	1.0000e0
Storativity Ratio	ω_1=	0.0000e0	ω_2=	1.0000e0

Apparent Wellbore Storage Dim. (C_{aD})	3.29e9
Wellbore Storage Constant Dim. (C_D)	12.50
Storage Pressure Param. Dim. (C_{pD})	1.062e-6

Formation Parameters

Water Saturation (S_w)	20.00 %
Oil Saturation (S_o)	0.00 %
Gas Saturation (S_g)	80.00 %
Wellbore Radius (r_w)	0.35 ft
Formation Temperature (T)	186.5 °F

Fluid Properties

Gas Gravity (G)	0.650
N_2	0.00 %
H_2S	0.00 %
CO_2	0.00 %
Critical Pressure (P_c)	670.91 psi
Critical Temperature (T_c)	373.97 R
PVT Reference Pressure (p_{PVT})	5997.44 psi
Gas Compressibility (c_g)	9.07421e-5 psi^{-1}
Gas Compressibility Factor (z)	1.073
Gas Viscosity (μ_g)	0.0279 cp
Gas Formation Volume Factor (B_g)	0.000580 bbl/scf

Production and Pressure

Final Gas Rate	1.050 MMCF/I
Final Measured Pressure	5997.44 psi
Initial Pressure (p_i)	5997.44 psi

Synthesis Results

Average Error	-1.82 %
Synthetic Initial Pressure (p_i)	7094.05 psi
Pressure Drop Due To Skin (Δp_s)	psi
Extrapolated Pressure at Specified Time	6251.59 psi
Flow Efficiency (FE)	
Damage Ratio (DR)	

Forecasts

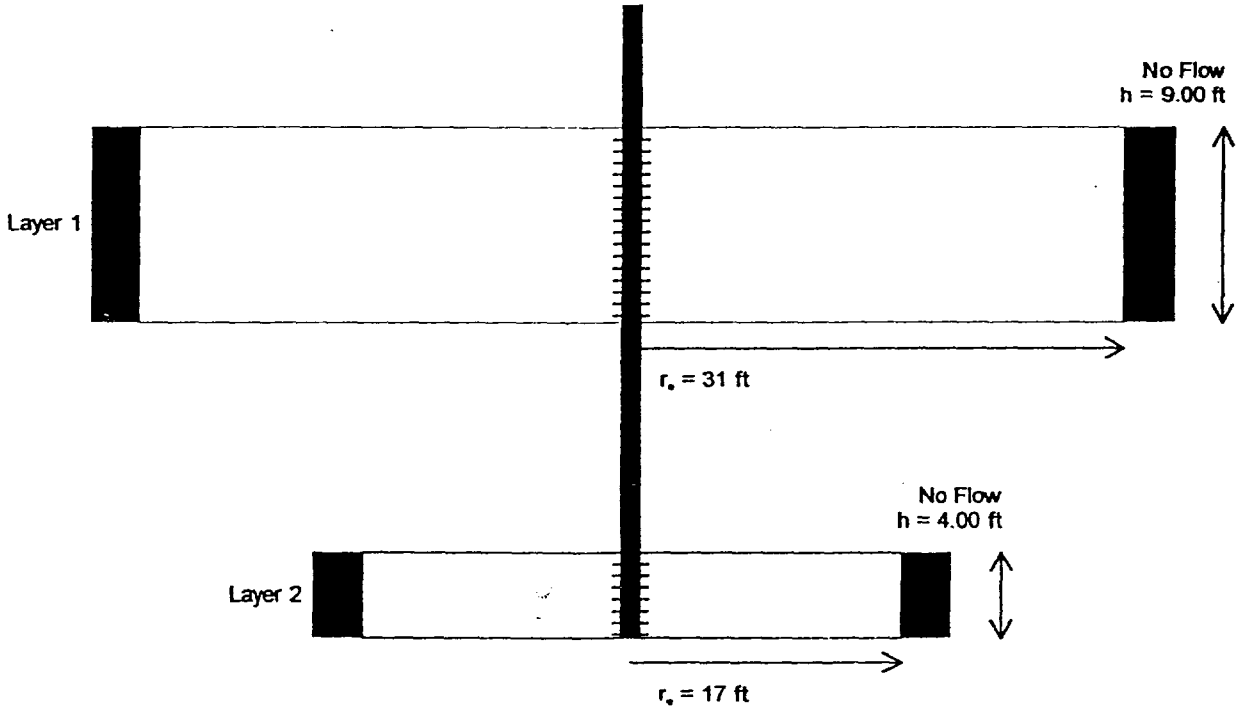
Specified Flowing Pressure (p_{wfs})	707.58 psi
3 - Month Constant Rate	0.004 MMCF
6 - Month Constant Rate	0.002 MMCF
Specified Forecast Time	12.00 month
Forecast Constant Rate @ Current Skin	0.001 MMCF
Forecast Constant Rate @ Skin=0	0.001 MMCF
Forecast Constant Rate @ Skin=-4	0.001 MMCF

Multi-Layered Model

TMBR/Sharp Drilling, Inc.
Bluefin "25" 1, Dst 3, Gauge 21(Side View

(Not to scale)

k_1 = 0.095 md
s_1 = -1.000
k_2 = 0.176 md
s_2 = -0.267



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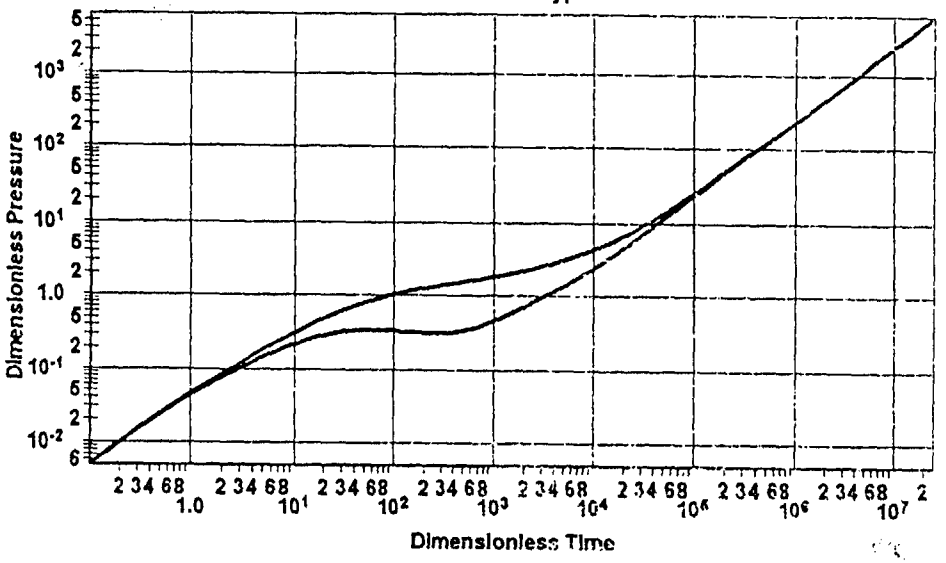
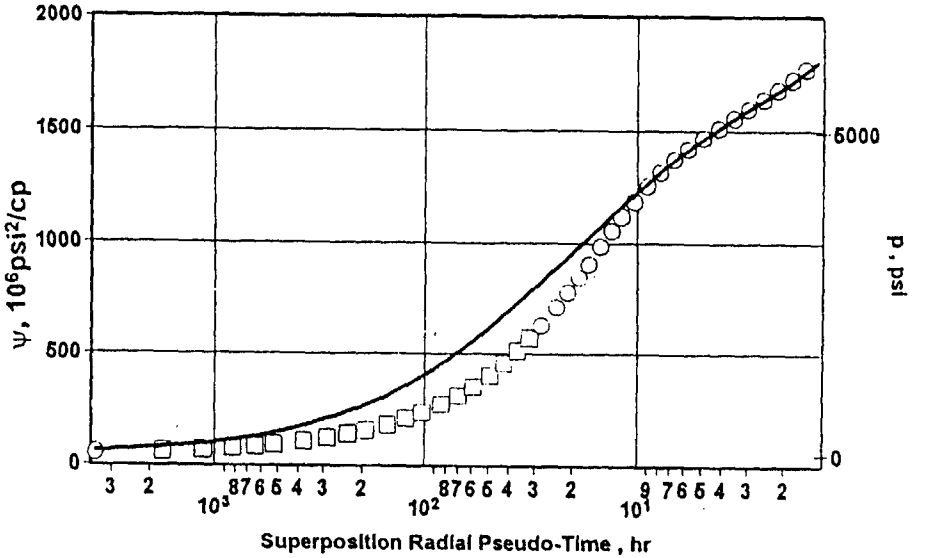
Multi-Layered Model

Dimensionless Typecurve



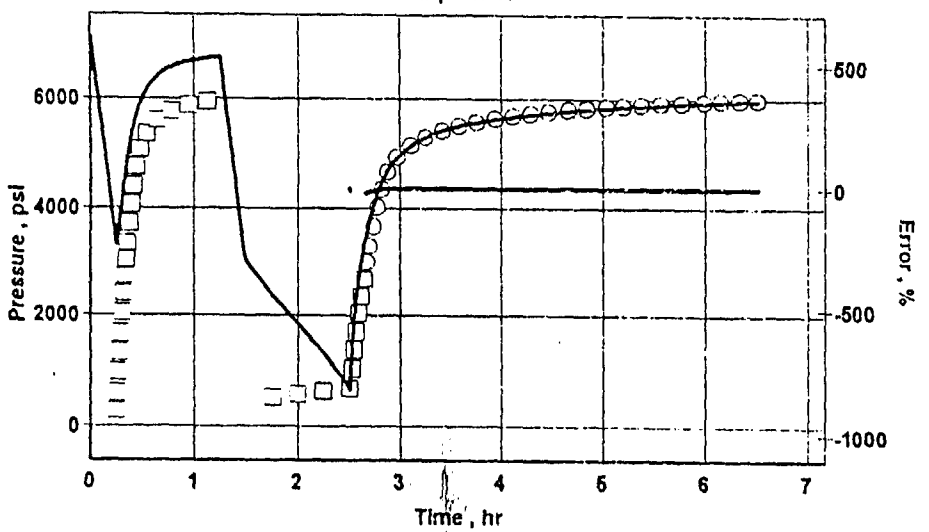
Multi-Layered Model

Radial



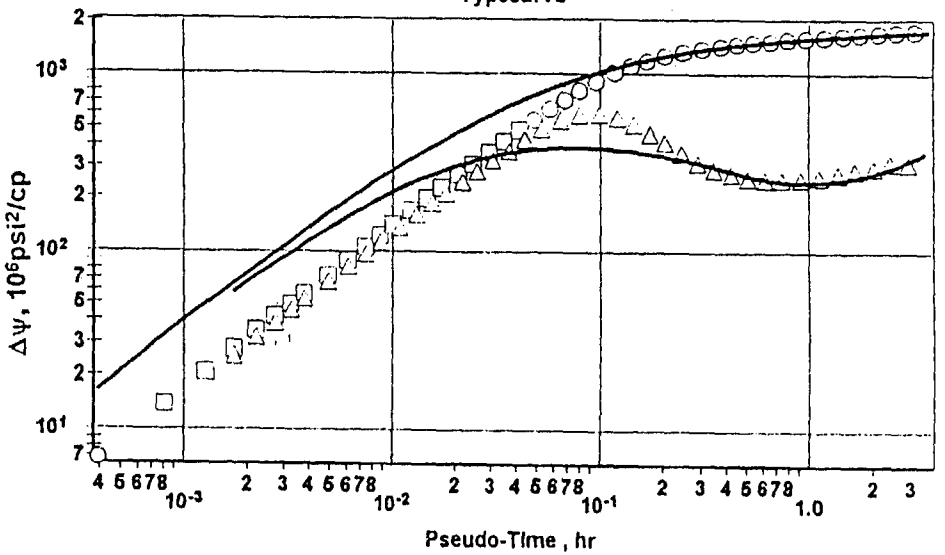
Multi-Layered Model

Strip Chart



Multi-Layered Model

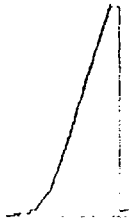
Typecurve



GUIDE TO IDENTIFICATION AND INTERPRETATION OF DST DATA:

Initial Hydrostatic:

The hydrostatic pressure increases as the test tool is lowered in well. After reaching the test interval the packer is set, the hydraulic tool is opened and the test zone is opened to atmospheric. This happens almost instantaneously and the pressure drop is recorded. This is called the pre-flow period. The purpose is to relieve the hydrostatic pressure from the annular space within the tested interval.

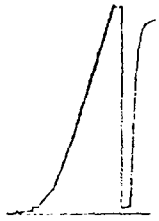


Pre-Flow Period:

The length of the pre-flow period can be determined by the surface blow according to the following:

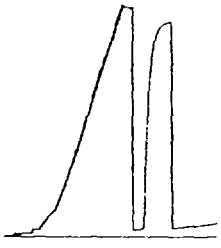
- Approximately 5 minutes in duration if the permeability is estimated to be greater than 15 md.
- Approximately 10 minutes in duration if the permeability is estimated to be less that 15 md.

If the pre-flow period is too short the hydrostatic pressure will not be dissipated and the following shut-in period may be under the influence of "hydrostatic super-charge" effect.



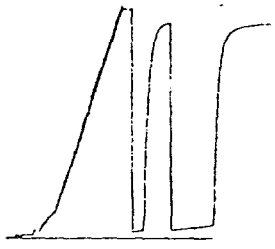
Initial shut-in Period:

When the pre-flow period is completed the tool is closed and the reservoir pressure is allowed to build. This is called the initial shut-in period. The purpose is to record the reservoir pressure before any production has occurred. It is important to have an initial shut-in period long enough to extrapolate a maximum reservoir pressure.



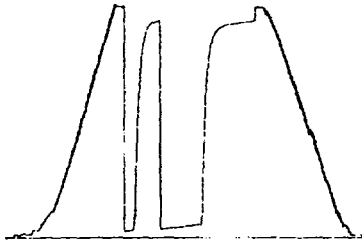
Second Flow Period:

When the initial shut-in is completed the tool is again opened. This is called the second flow period. The purpose is to allow reservoir fluid and gas to enter the drill string. Analysis of the final flow data will help to determine the flowing capabilities of the tested reservoir. Depending on conditions, when the tool is opened the pressure will drop from reservoir pressure to the pre-flow pressure and will record the weight of the formation fluid entering the drill string. If gas is present the flowing pressure will reflect the upstream pressure of the gas flow. The duration of the final flow period should be approximately 60 to 180 minutes, depending on conditions and estimated permeability. If gas flows to surface a stabilized measured rate is desirable for proper reservoir evaluation.



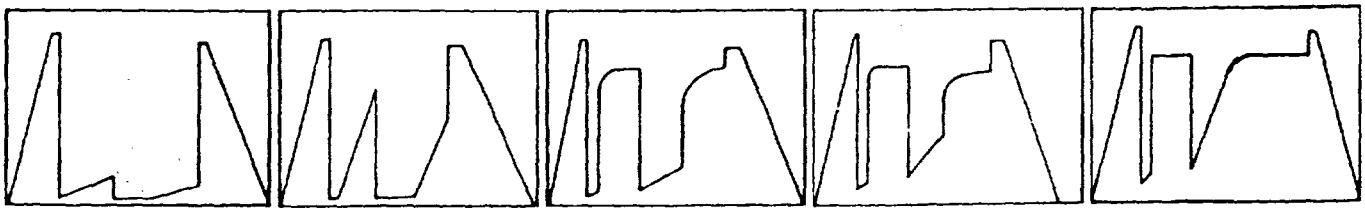
Second Shut-in Period:

When the second flow period is completed, the tool is again closed. This is called the second shut-in period. The purpose is to measure the reservoir pressure after a certain amount of production has occurred. Proper evaluation of the second shut-in data will help determine if the tested reservoir is of limited area extent. Skin Damage, Permeability, Radius of Investigation and other reservoir properties can also be determined.



Final Hydrostatic:

When the second shut-in period is completed the packer is released which allows drilling fluid to flow from the hole into the test zone and the hydrostatic pressure is then recorded. Because the pressure is equalized, the packer can be easily removed from the packer seat. As the test tool is pulled from the well, the hydrostatic pressure decreases to atmospheric pressure.



Virtually No Effective Permeability | Slightly Higher Permeability | Average Permeability | High Permeability | Excellent Permeability