



c/SP

COMPANY : UMC PETROLEUM CORP.
LEASE : ARTESIA STATE
WELL NO. : # 4
FIELD : WILDCAT
COUNTY/STATE : EDDY / NEW MEXICO

TEST DATE : 07/30/97
D.S.T. NO. : 1
TEST TKT. NO. : 19817
INVOICE NO. : 17912
ORDER NO. :

FORMATION : BONE SPRING SAND
INTERVAL (ft) : 7735 TO 7785
TOTAL DEPTH (ft) : 7785
ELEVATION (ft) :

HOLE SIZE (in) : 7.875
DRILL PIPE ID (in) : 3.75
DRILL COLLAR ID(in): 2.25
DRILL COLLAR feet : 935

ANCHOR LENGTH (ft): 50
TOOL LENGTH (ft) : 72
TOOL O.D. (in) : 5
PACKER SIZE (in) : 7.00

RECORDER DATA
AK-1KUSTER/STARBURST

TOP RECORDER: IN
RECORDER NO. : 20234
CAPACITY (psi): 10000
DEPTH (ft) : 7743
CLOCK NO. : 20234
DURATION (hrs): 96

BOTTOM RECORDER: OUT
RECORDER NO. : 6232
CAPACITY (psi): 6975
DEPTH (ft) : 7782
CLOCK NO. : 19642
DURATION (hrs): 24

MUD PROPERTIES

MUD TYPE : CHEM / GEL
MUD WT. (#/gal) : 8.60

WATER LOSS (cc) :
FILTER CAKE (in) : FILM
VISCOSITY (sec) : 29

CHLORIDE PPM : 14000
RESISTIVITY(ohm-m): .23

EQUIPMENT DATA

CONVENTIONAL : YES
STRADDLE : NO
SELECTIVE ZONE : NO
SAMPLE CHAMBER : YES
GAS ANALYSIS : NO

ROTARY JARS : YES
NO. OF PACKERS : 2
SAFETY JOINT : YES
CIRCULATING SUB : YES
REVERSED OUT : NO

MULTIFLOW : NO
MILEAGE : NO
OPERATOR TIME : NO
OTHER : YES
STARBURST ELECTRONIC

SUCCESSFUL : YES

PACKER FAILURE : NO
TOOL PLUG : NO

DECIDED NOT TO TEST : NO

FAIL TO REACH BOTTOM : NO

TIME INTERVAL DATA (min)

TOOL OPENED : 10:00 AM

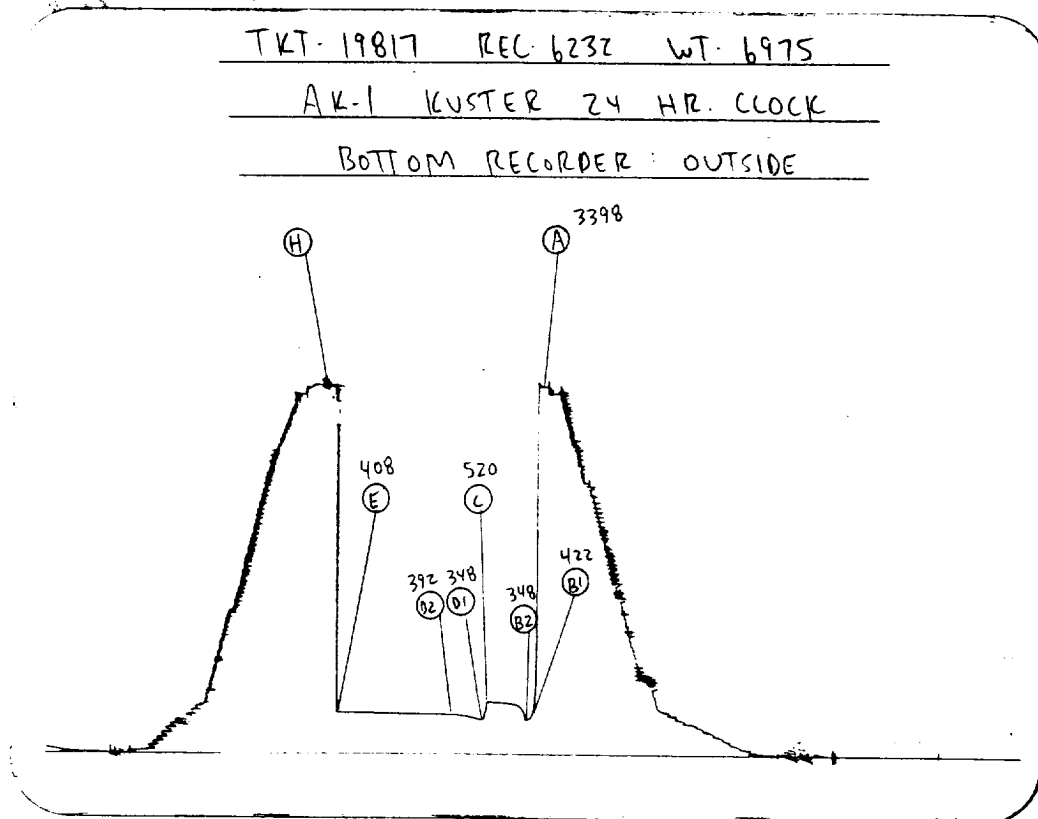
TOTAL TEST TIME : 290

INITIAL FLOW : 13
SECOND FLOW : 40
THIRD FLOW :

INITIAL SHUT-IN : 59
SECOND SHUT-IN : 178
THIRD SHUT IN :

TEST TOOL OPERATOR: KEN THOMPSON

	CORRECTED READING	FIELD READING
A INITIAL HYDROSTATIC:	3398 PSI	3384 PSI
B-1 INITIAL FIRST FLOW :	422 PSI	373 PSI
B-2 FINAL FIRST FLOW :	348 PSI	302 PSI
C FIRST SHUT-IN :	520 PSI	480 PSI
D-1 INITIAL SECOND FLOW:	348 PSI	302 PSI
D-2 FINAL SECOND FLOW :	392 PSI	373 PSI
E SECOND SHUT-IN :	408 PSI	373 PSI
H FINAL HYDROSTATIC :	3388 PSI	3384 PSI



RECOVERY DATA

PIPE RECOVERY

B.H. TEMP. (deg F) : 131

SAMPLE CHAMBER

GAS TO SURFACE 11 MIN. INTO FIRST FLOW PERIOD
816 FT. OF TOTAL FLUID
240 FT. OF FREE OIL (37.5 GRAVITY @ 76 DEGREES)
576 FT. OF SALTWATER
TOP- 20,000 PPM CHLORIDES- .175 OHMS @ 85 DEGREES
BOTTOM- 80,600 PPM CHLORIDES- .053 OHMS @ 85 DEGREES

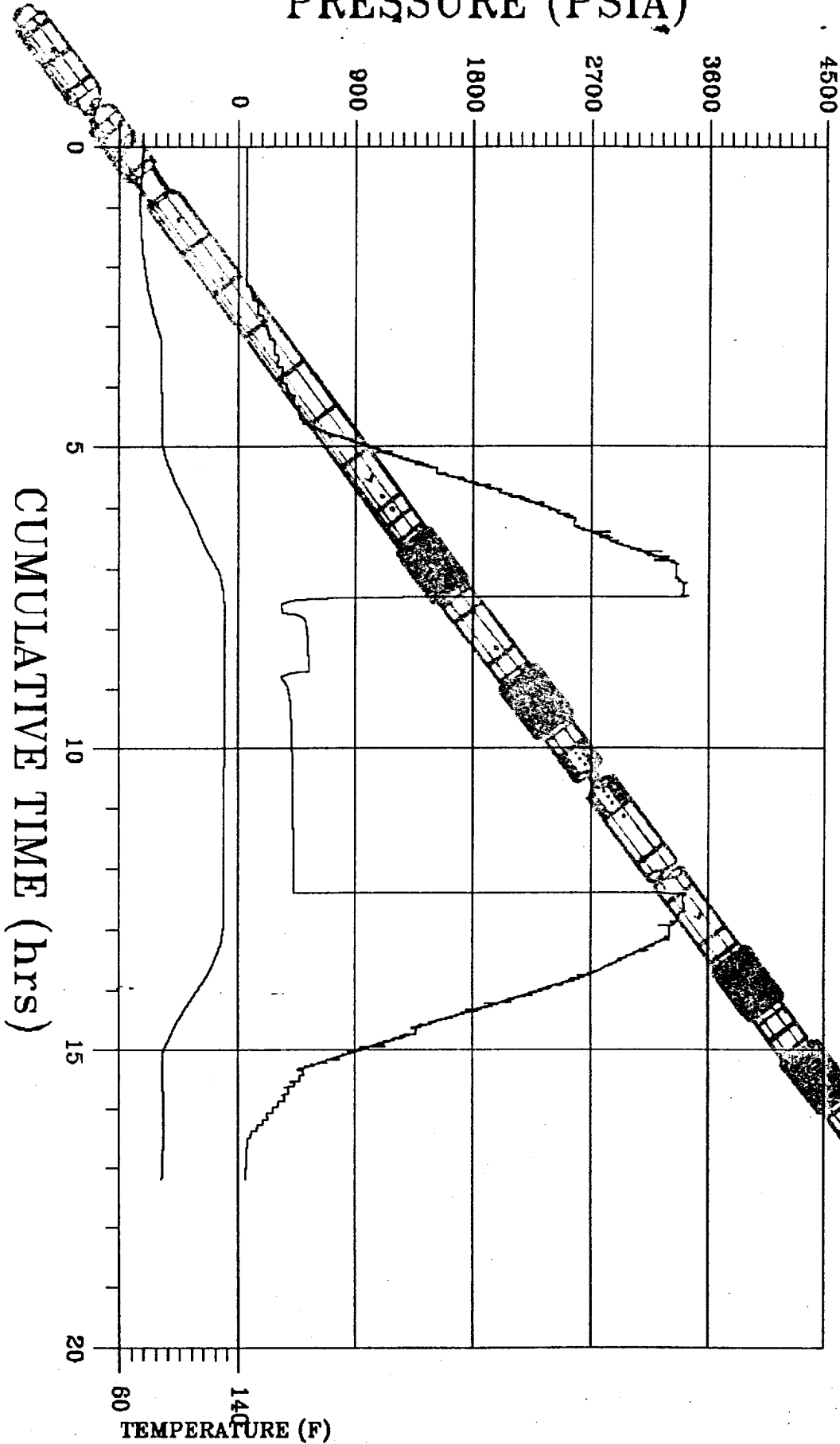
280 LBS. OF PRESSURE
0.88 CU. FT. OF GAS
500 CC'S OF FREE OIL
36.8 GRAVITY @ 60 DEGREES
1200 CC'S SALTWATER
80,600 PPM CHLORIDES
.053 OHMS @ 85 DEGREES

TEST REMARKS

OPEN TOOL WITH STRONG BLOW. GAS TO SURFACE IN 11 MIN. ON 1/4" CHOKE WITH 26 LBS. (59 MCFPD) FOR THE 15 MIN. FIRST FLOW PERIOD. REOPENED TOOL WITH GOOD BLOW ON 1/4" WHICH INCREASED TO 3.5 LBS. (26 MCFPD) IN 20 MIN. & THEN SLOWLY DECREASED TO .5 LB. (22 MCFPD) AT END OF THE 40 MIN. FINAL FLOW.



PRESSURE (PSIA)



UMC PETROLEUM CORP.

ARTESIA STATE COM #4 (EDDY CO., NEW MEXICO)

Probe: 20234
Pressure vs Time
By RIG TESTERS INC.

INCREMENTAL PRESSURE DATA

RECORDER NO : 20234

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 7743 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNER) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
FIRST FLOW					
.0	.0			434.00	.00
3.0	3.0			348.40	-85.60
6.0	6.0			323.50	-110.50
9.0	9.0			326.60	-107.40
12.0	12.0			333.10	-100.90
13.0	13.0			334.90	-99.10
FIRST SHUT-IN					
13.0	13.0	.00	.000	334.90	.00
13.5	13.0	.50	26.920	398.55	63.65
14.0	13.0	1.00	13.960	427.82	92.92
14.5	13.0	1.50	9.640	445.70	110.80
15.0	13.0	2.00	7.480	458.05	123.15
15.5	13.0	2.50	6.184	467.52	132.62
16.0	13.0	3.00	5.320	476.10	141.20
16.5	13.0	3.50	4.703	483.51	148.61
17.0	13.0	4.00	4.240	489.62	154.72
17.5	13.0	4.50	3.880	495.00	160.10
18.0	13.0	5.00	3.592	498.83	163.93
19.0	13.0	6.00	3.160	505.90	171.00
20.0	13.0	7.00	2.851	511.69	176.79
21.0	13.0	8.00	2.620	515.51	180.61
22.0	13.0	9.00	2.440	517.10	182.20
23.0	13.0	10.00	2.296	521.12	186.22
25.0	13.0	12.00	2.080	523.10	188.20
27.0	13.0	14.00	1.926	525.46	190.56
29.0	13.0	16.00	1.810	527.27	192.37
31.0	13.0	18.00	1.720	528.70	193.80
33.0	13.0	20.00	1.648	529.89	194.99
36.0	13.0	23.00	1.563	531.69	196.79
39.0	13.0	26.00	1.498	533.29	198.39
42.0	13.0	29.00	1.447	534.99	200.09
45.0	13.0	32.00	1.405	536.41	201.51
48.0	13.0	35.00	1.370	537.59	202.69
51.0	13.0	38.00	1.341	538.69	203.79
54.0	13.0	41.00	1.316	539.79	204.89
57.0	13.0	44.00	1.295	540.60	205.70
60.0	13.0	47.00	1.276	541.40	206.50
63.0	13.0	50.00	1.259	542.00	207.10
66.0	13.0	53.00	1.245	542.70	207.80
69.0	13.0	56.00	1.231	543.49	208.59
72.0	13.0	59.04	1.220	544.10	209.20

INCREMENTAL PRESSURE DATA

RECORDER NO : 20234

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 7743 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNER) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
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SECOND FLOW

74.9	15.9			360.70	.00
77.9	18.9			322.04	-38.66
80.9	21.9			346.84	-13.86
83.9	24.9			366.16	5.46
86.9	27.9			374.98	14.28
89.9	30.9			382.60	21.90
92.9	33.9			388.30	27.60
95.9	36.9			393.02	32.32
98.9	39.9			396.46	35.76
101.9	42.9			398.66	37.96
104.9	45.9			400.40	39.70
107.9	48.9			402.54	41.84
110.9	51.9			406.84	46.14
113.9	54.9			404.82	44.12
115.2	56.2			404.70	44.00

SECOND SHUT-IN

115.2	56.2	.00	.000	404.70	.00
116.2	56.2	1.00	57.160	404.80	.10
117.2	56.2	2.00	29.080	404.90	.20
118.2	56.2	3.00	19.720	405.00	.30
119.2	56.2	4.00	15.040	405.10	.40
120.2	56.2	5.00	12.232	405.20	.50
121.2	56.2	6.00	10.360	405.40	.70
122.2	56.2	7.00	9.023	405.50	.80
123.2	56.2	8.00	8.020	405.70	1.00
124.2	56.2	9.00	7.240	405.80	1.10
125.2	56.2	10.00	6.616	406.00	1.30
127.2	56.2	12.00	5.680	406.30	1.60
129.2	56.2	14.00	5.011	406.58	1.88
131.2	56.2	16.00	4.510	406.90	2.20
133.2	56.2	18.00	4.120	407.20	2.50
135.2	56.2	20.00	3.808	407.49	2.79
138.2	56.2	23.00	3.442	407.80	3.10
141.2	56.2	26.00	3.160	408.18	3.48
144.2	56.2	29.00	2.937	408.50	3.80
147.2	56.2	32.00	2.755	408.80	4.10
150.2	56.2	35.00	2.605	409.10	4.40
153.2	56.2	38.00	2.478	409.50	4.80
156.2	56.2	41.00	2.370	409.88	5.18

INCREMENTAL PRESSURE DATA

RECORDER NO : 20234

RECORDER CAPACITY : 10000 psi

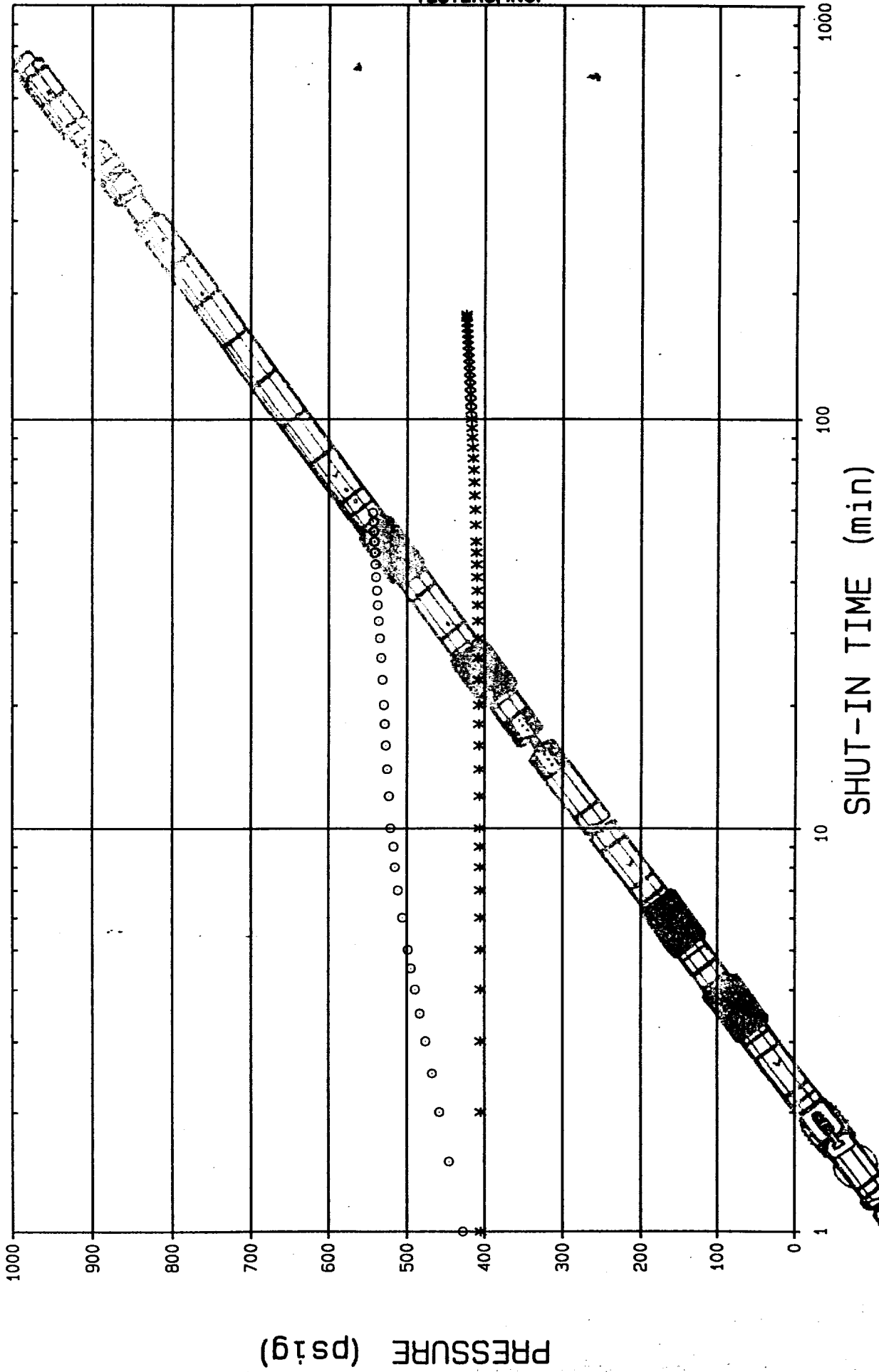
RECORDER DEPTH : 7743 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNER) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
SECOND SHUT-IN					
159.2	56.2	44.00	2.276	410.20	5.50
162.2	56.2	47.00	2.195	410.60	5.90
165.2	56.2	50.00	2.123	411.00	6.30
170.2	56.2	55.00	2.021	411.60	6.90
175.2	56.2	60.00	1.936	412.20	7.50
180.2	56.2	65.00	1.864	412.98	8.28
185.2	56.2	70.00	1.802	413.60	8.90
190.2	56.2	75.00	1.749	414.30	9.60
195.2	56.2	80.00	1.702	415.00	10.30
200.2	56.2	85.00	1.661	415.60	10.90
205.2	56.2	90.00	1.624	416.20	11.50
210.2	56.2	95.00	1.591	416.80	12.10
215.2	56.2	100.00	1.562	417.30	12.60
220.2	56.2	105.00	1.535	417.80	13.10
225.2	56.2	110.00	1.511	418.28	13.58
230.2	56.2	115.00	1.488	418.69	13.99
235.2	56.2	120.00	1.468	419.10	14.40
240.2	56.2	125.00	1.449	419.58	14.88
245.2	56.2	130.00	1.432	420.00	15.30
250.2	56.2	135.00	1.416	420.40	15.70
255.2	56.2	140.00	1.401	420.80	16.10
260.2	56.2	145.00	1.387	421.29	16.59
265.2	56.2	150.00	1.374	421.70	17.00
270.2	56.2	155.00	1.362	422.08	17.38
275.2	56.2	160.00	1.351	422.40	17.70
280.2	56.2	165.00	1.340	422.80	18.10
285.2	56.2	170.00	1.330	423.18	18.48
290.2	56.2	175.00	1.321	423.60	18.90
292.7	56.2	177.54	1.316	423.60	18.90

REMARKS

THE INCREMENTAL DATA, PLOTS & ANALYSIS ARE FROM THE ELECTRONIC RECORDER.
PLEASE REFER TO THE DERIVATIVE DIAGNOSTICS FOR FURTHER INFORMATION.

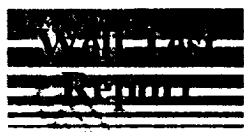
PRESSURE TIME



UMC PETROLEUM CORP.
ARTESIA STATE # 4



RigTesters, Inc.
ABILENE - MIDLAND - GRAHAM
UMC PETROLEUM CORP.



Well identification

Well ID	ARTESIA ST.COM#4	Well location	S.E. ARTESIA
County/District	EDDY	State, Country	NEW MEXICO
Company	UMC PETROLEUM	Division	DENVER

Fluid properties

Prod/Inj fluid	OIL/WATER	GOR	100
Water cut	71%	Condensate yield	UNKNOWN
API gravity	36.8	Gas spec. grav.	0.67
Viscosity	1.0394 cp	Pseudo-critical T	376 deg R
Pseudo-critical P	666.38 psia	H2S mole fraction	UNKNOWN
CO2 mole fraction	UNKNOWN	N2 mole fraction	UNKNOWN
Compressibility(t)	20.312-e-6/psi	Formation vol factor	1.036 RB/STB

Reservoir properties

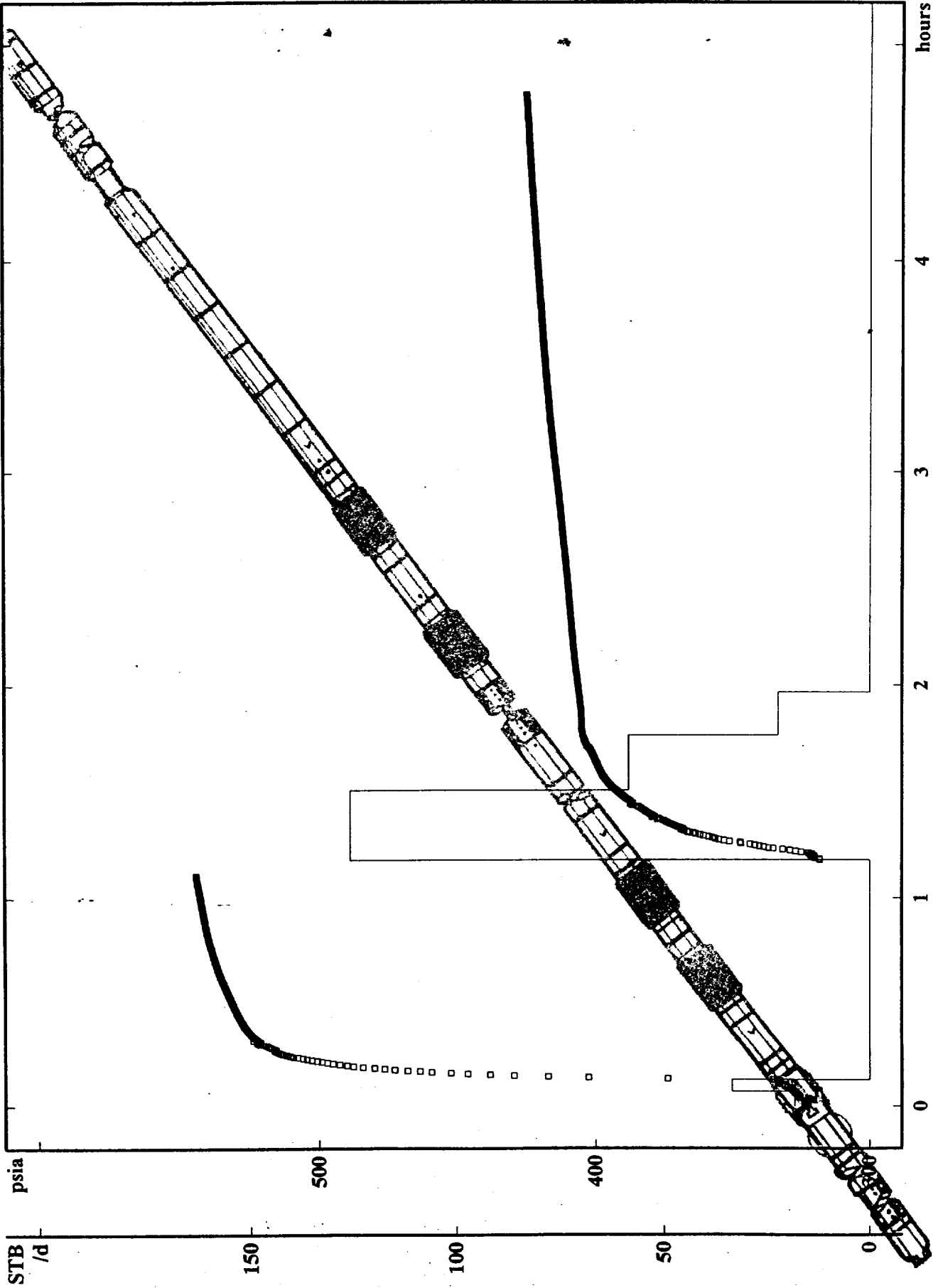
Porosity	0.11 frac	Formation thickness	9 ft
Wellbore radius	0.32813 ft	Prod-observer distance	N/A
Water-Oil Contact	UNKNOWN	Gas-Oil Contact	N/A
Gas-Water Contact	N/A	Rock compressibility	
Reservoir temperature	131 deg F	Pressure for properties	544.09 psia

Comments

THE DERIVATIVES INDICATE A RESERVOIR WITH MODERATE PERMEABILITY AND NO (NEGATIVE) SKIN. THE LATE TIME DATA ON INITIAL SHUT-IN PERIOD INDICATES BARRIERS/ BOUNDARY EFFECTS. THE FINAL SHUT-IN IS DOMINATED BY LINEAR FLOW DUE THE NEAR EQUALIZATION BETWEEN THE FINAL FLOW & FINAL SHUT-IN PERIOD, WHICH MAKES CALCULATIONS (EXTRAPOLATION, PERMEABILITY & SKIN) SUBJECT TO QUESTION. OVERALL TEST INDICATES A RESERVOIR WITH LIMITED AERIAL EXTENT. THE FIXED PARAMETERS USED WERE AN EST. 11% POROSITY, 9 FT. OF NET PAY REPORTED AND AN AVERAGE PRODUCTION OF 68.3 BBLs OF FLUID (29% OIL- 71% WATER; ACCORDING TO SAMPLE CHAMBER RECOVERY FOR THE FINAL FLOW. THE RATES WERE BASED ON DENSITY OF FLUID RECOVERED VS FLOWING PRESSURES. RADIUS OF INVESTIGATION CALCULATED TO APPROX. 382 FT. FROM WELLBORE.

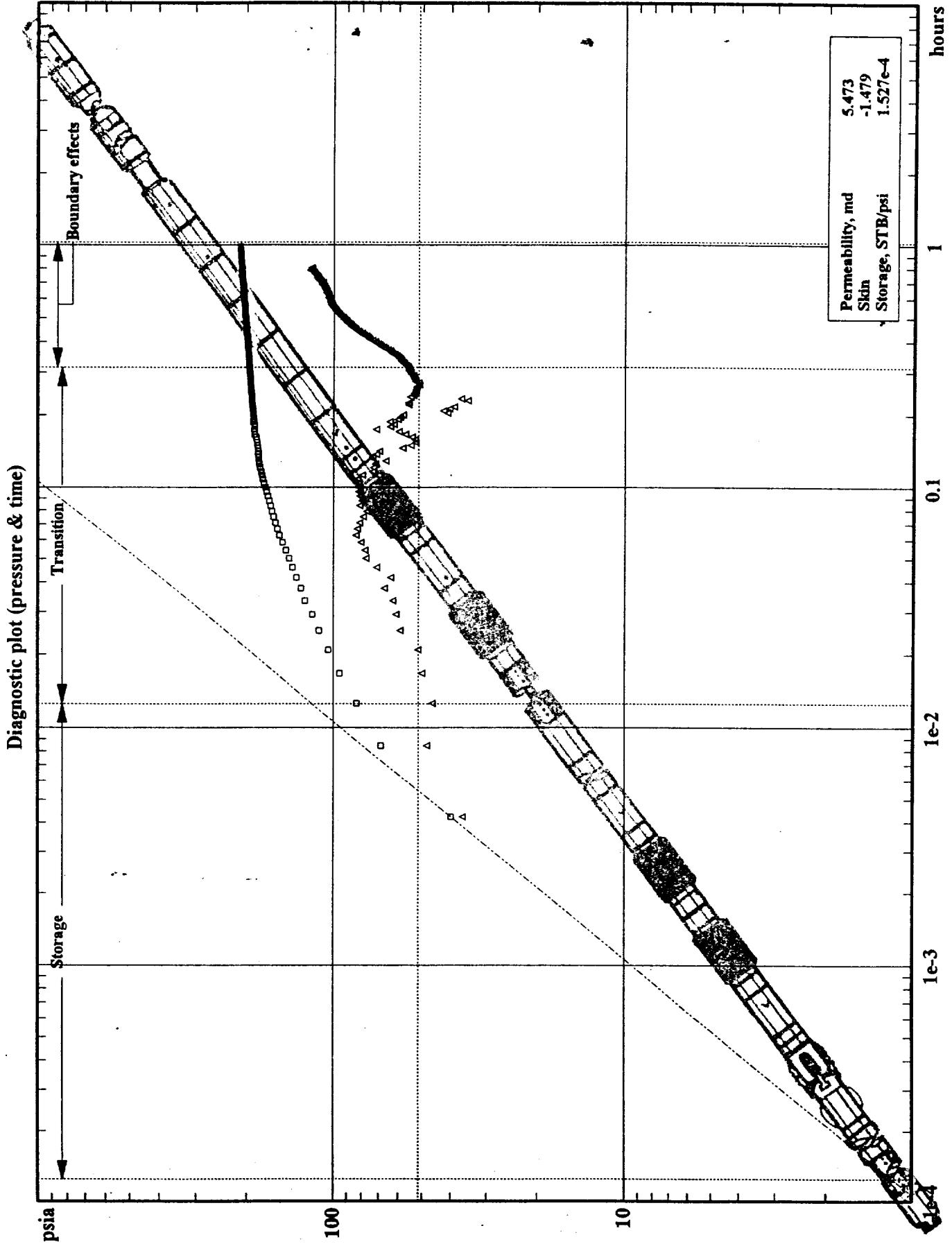
UMC PETROLEUM CORP. ARTESIA STATE COM #4

Pressure and flow rate vs time during test sequence



DST #1 7735 - 7785 FT. BONE SPRING SAND

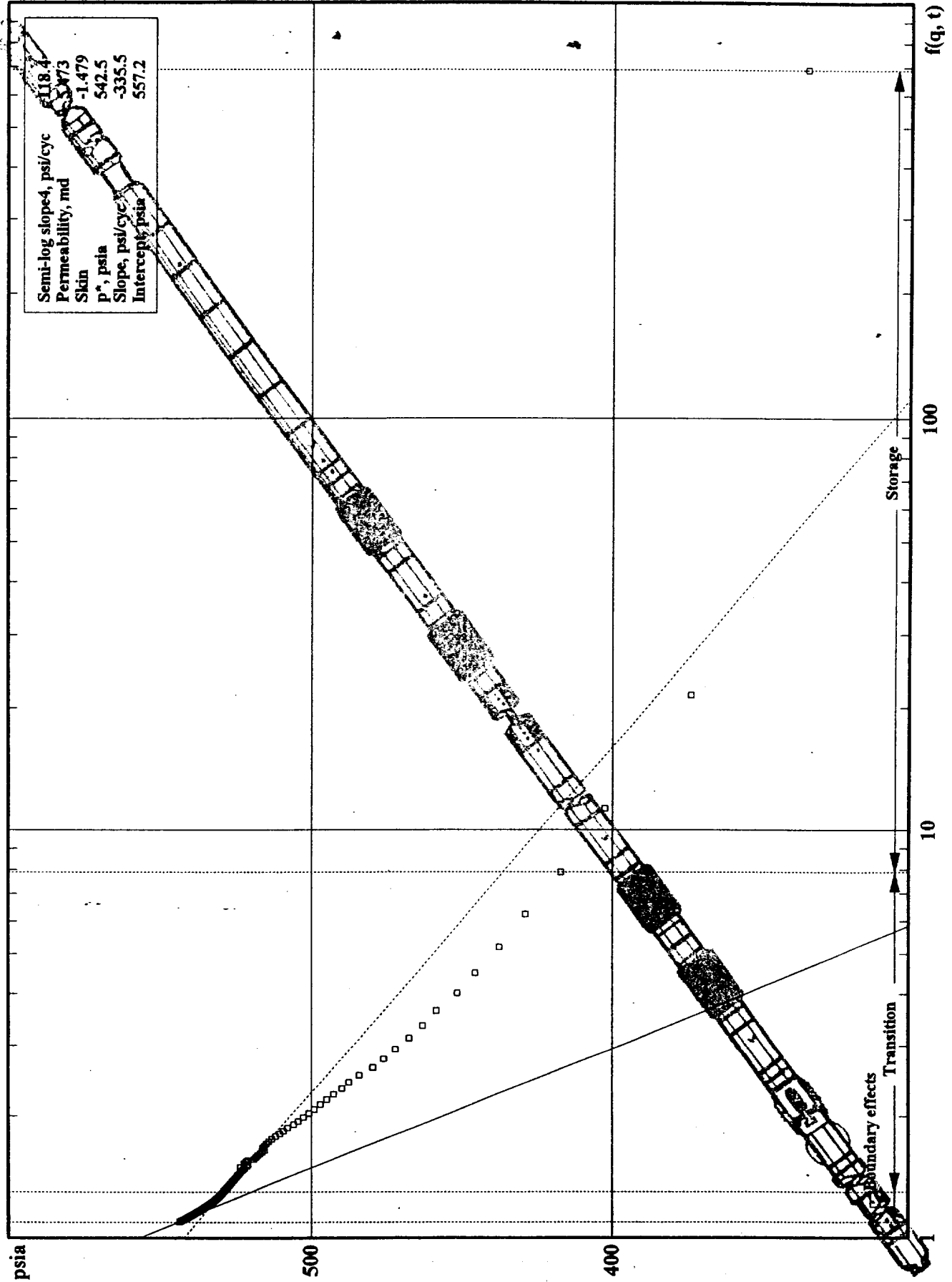
UMC PETROLEUM CORP. ARTESIA STATE COM #4



INITIAL SHUT-IN PERIOD DST#1

UMC PETROLEUM CORP. ARTESIA STATE COM #4

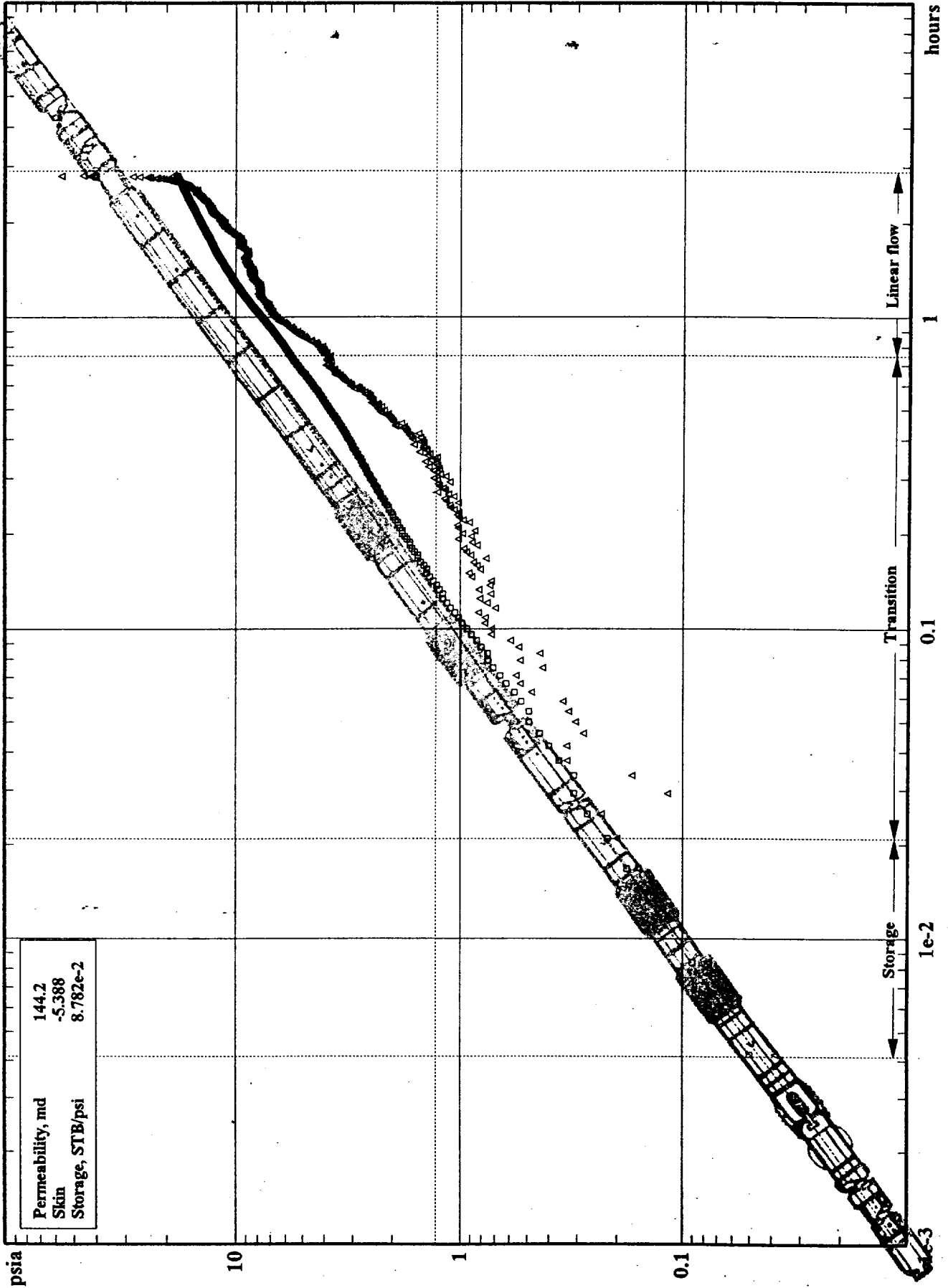
Variable rate Horner plot (pressure & time)



INITIAL SHUT-IN PERIOD DST#1

UMC PETROLEUM CORP. ARTESIA STATE COM #4

Diagnostic plot (pressure & time)

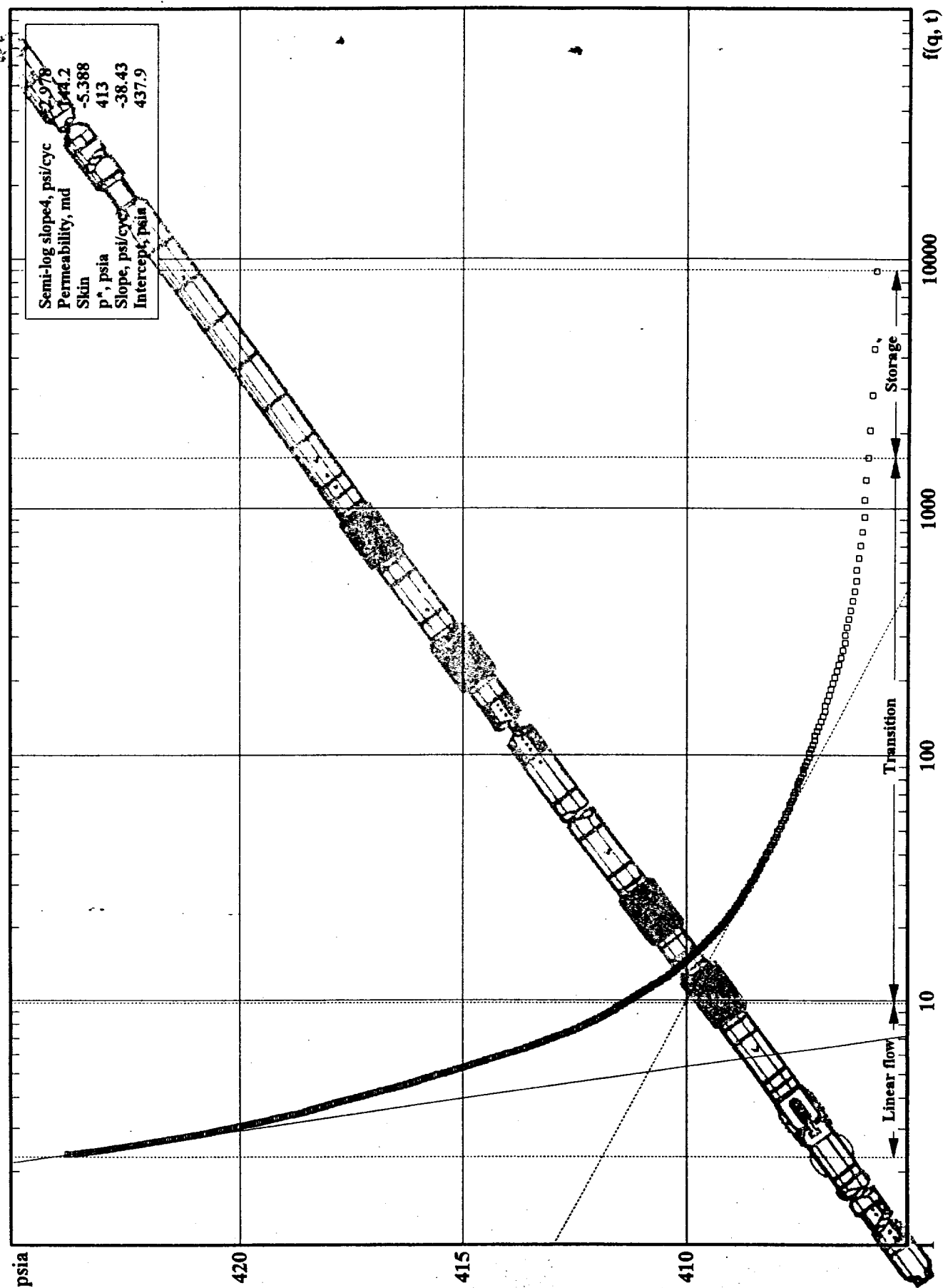


FINAL SHUT-IN PERIOD DST#1



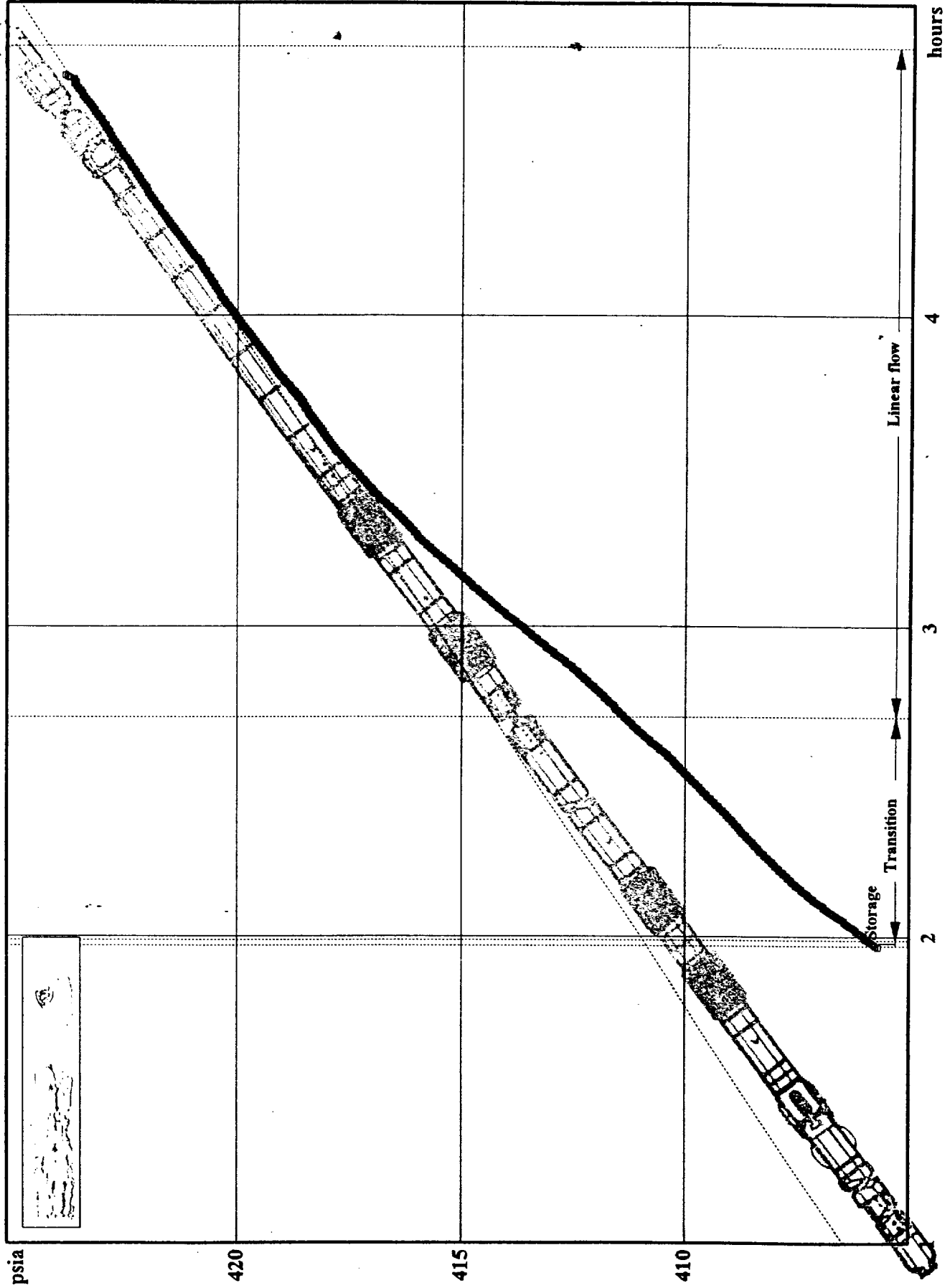
UMC PETROLEUM CORP. ARTESIA STATE COM #4

Variable rate Horner plot (pressure & time)



UMC PETROLEUM CORP. ARTESIA STATE COM #4

Cartesian plot (pressure & time)



FINAL SHUT-IN PERIOD DST #1