RIG
TESTERS, INC.

COMPANY	: SAHARA OPERATING CO.	TEST DATE	: 05-18-96
LEASE	: STATE SIMS "31"	D.S.T. NO.	: 2
WELL NO.	: # 1	TEST TKT. NO.	: 18944
FIELD	: EUMONT	INVOICE NO.	: 17124
COUNTY/STATE	: LEA / NEW MEXICO	ORDER NO.	:

FORMATION	: SEVEN RIVERS	HOLE SIZE (in)	: 7.875	ANCHOR LENGTH (ft)	: 36
INTERVAL (ft)	: 4017 TO 4053	DRILL PIPE ID (in)	: 3.75	TOOL LENGTH (ft)	: 81
TOTAL DEPTH (ft)	: 4053	DRILL COLLAR ID(in)	: 2.25	TOOL O.D. (in)	: 5
ELEVATION (ft)	: 3644	DRILL COLLAR feet	: 852	PACKER SIZE (in)	: 6.75

RECORDER DATA
AK1-KUSTER/STARBURST

TOP RECORDER: IN		BOTTOM RECORDER: OUT	
RECORDER NO.	: 20234	RECORDER NO.	: 6087
CAPACITY (psi)	: 10000	CAPACITY (psi)	: 5500
DEPTH (ft)	: 3996	DEPTH (ft)	: 4025
CLOCK NO.	: 20234	CLOCK NO.	: 26326
DURATION (hrs)	: 48	DURATION (hrs)	: 18

MUD PROPERTIES

MUD TYPE	: CHEM / GEL	WATER LOSS (cc)	: 14.20	CHLORIDE PPM	: 190000
MUD WT. (#/gal)	: 10.1	FILTER CAKE (in)	: FILM	RESISTIVITY(ohm-m)	: .041
		VISCOSITY (sec)	: 46		

EQUIPMENT DATA

CONVENTIONAL	: YES	ROTARY JARS	: YES	MULTIFLOW	: NO
STRADDLE	: NO	NO. OF PACKERS	: 2	MILEAGE	: NO
SELECTIVE ZONE	: NO	SAFETY JOINT	: YES	OPERATOR TIME	: NO
SAMPLE CHAMBER	: YES	CIRCULATING SUB	: YES	OTHER	: YES
GAS ANALYSIS	: NO	REVERSED OUT	: NO	ELECTRONIC RECORDER	
SUCCESSFUL	: YES	PACKER FAILURE	: NO	TOOL PLUG	: NO

DECIDED NOT TO TEST : NO

FAIL TO REACH BOTTOM : NO

TIME INTERVAL DATA (min)

TOOL OPENED	: 12;45 PM	TOTAL TEST TIME:	240
INITIAL FLOW	: 10	INITIAL SHUT-IN:	60
SECOND FLOW	: 57	SECOND SHUT-IN	: 114
THIRD FLOW	:	THIRD SHUT IN	:

TEST TOOL OPERATOR: KEN THOMPSON

SAHARA OPERATING CO.

RIG TESTERS, INC.

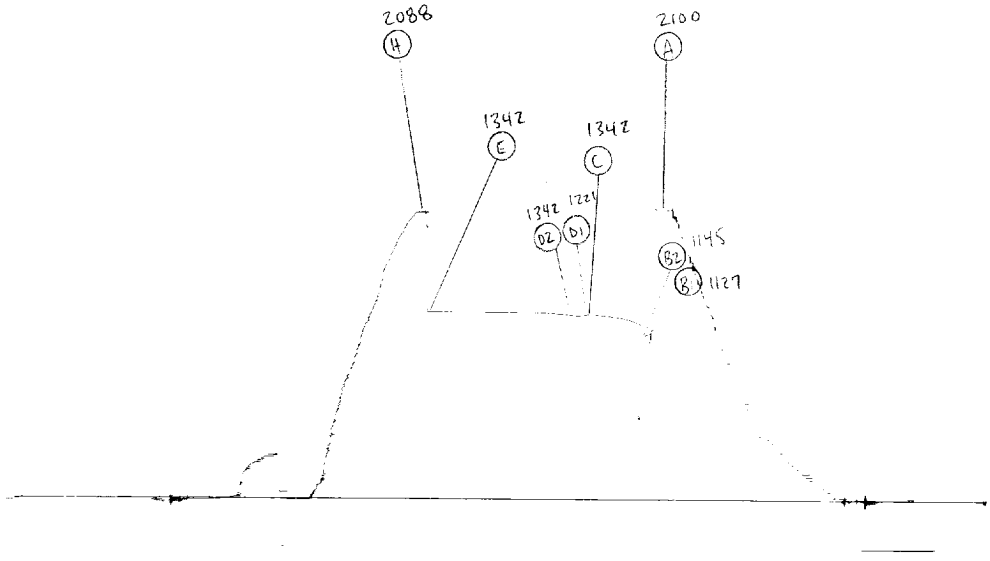
STATE SIMS "31" # 1
D.S.T. NO. : 2

		CORRECTED READING	FIELD READING
A	INITIAL HYDROSTATIC:	2100 PSI	2049 PSI
B-1	INITIAL FIRST FLOW :	1127 PSI	1115 PSI
B-2	FINAL FIRST FLOW :	1145 PSI	1156 PSI
C	FIRST SHUT-IN :	1342 PSI	1307 PSI
D-1	INITIAL SECOND FLOW:	1221 PSI	1293 PSI
D-2	FINAL SECOND FLOW :	1342 PSI	1307 PSI
E	SECOND SHUT-IN :	1342 PSI	1307 PSI
H	FINAL HYDROSTATIC :	2088 PSI	2022 PSI

TKT- 18944 REC- 6087 WT- 5500

AK-1 KUSTER 18 HR. CLOCK

MIDDLE RECORDER: INSIDE



RECOVERY DATA

PIPE RECOVERY

3010 FT. OF SULPHURWATER
TOP - 74,700 PPM CHLORIDES
MIDDLE - 23,700 PPM CHLORIDES
BOTTOM - 15,400 PPM CHLORIDES

B.H. TEMP. (deg F) : 93

SAMPLE CHAMBER

1225 LBS. OF PRESSURE
.01 CU. FT. OF GAS
2000 CC'S SULPHURWATER
14,200 PPM CHLORIDES
.360 OHMS @ 85 DEGREES

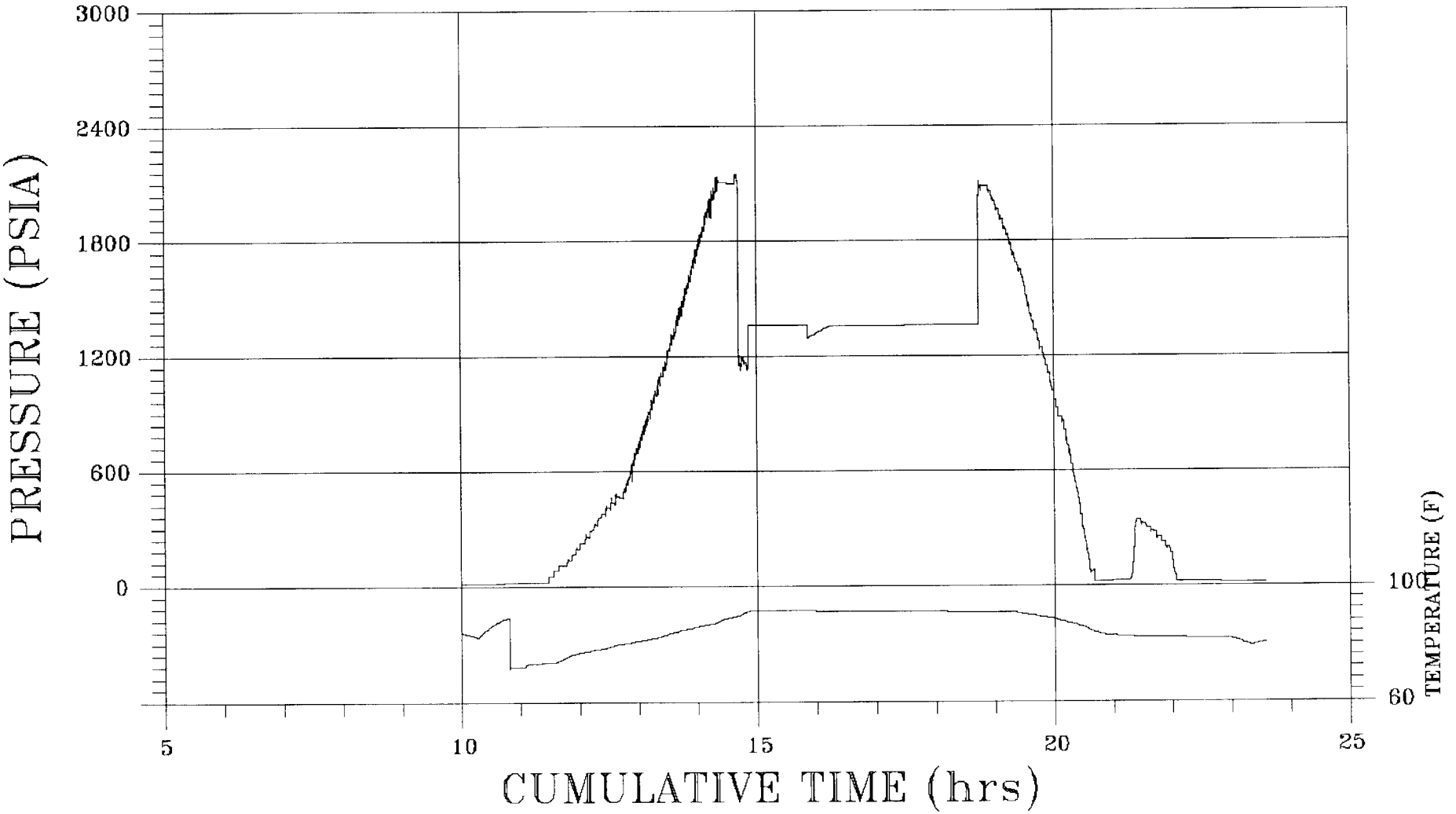
TEST REMARKS

OPENED TOOL WITH A FAIR BLOW WHICH INCREASED TO A STRONG BLOW THROUGHOUT THE 10 MIN. FIRST FLOW PERIOD. REOPENED TOOL WITH A FAIR BLOW WHICH INCREASED TO 4.5 LBS. ON 1/8" IN 20 MIN., THEN SLOWLY DECREASED AND DIED IN 50 MIN. OF THE 60 MIN. FINAL FLOW PERIOD.

SAHARA OPERATING CO.

STATE SIMS '31' #1 (LEA CO., NEW MEXICO)

Probe: 20234
Pressure vs Time
By RIG TESTERS INC.



SAHARA OPERATING CO.

RIG TESTERS, INC.

STATE SIMS "31" # 1
D.S.T. NO. : 2

INCREMENTAL PRESSURE DATA

RECORDER NO : 20234 RECORDER CAPACITY : 10000 psi RECORDER DEPTH : 3996 ft

ELAPSED TIME	TOTAL FLOW TIME, T	INCREMENTAL SHUT-IN TIME,DT	(T+DT)/DT (HORNER)	PRESSURE	DELTA P
---MIN----	---MIN----	---MIN----	----------	---PSIG---	---PSIG---
		FIRST FLOW			
.0	.0			1149.	0.
1.0	1.0			1198.	48.
2.0	2.0			1144.	-6.
3.0	3.0			1201.	52.
4.0	4.0			1192.	42.
5.0	5.0			1167.	18.
6.0	6.0			1167.	18.
7.0	7.0			1160.	11.
8.0	8.0			1133.	-17.
9.0	9.0			1124.	-26.
10.0	10.0			1138.	-11.
		FIRST SHUT-IN			
10.0	10.0	.00	.000	1138.	0.
10.3	10.0	.25	41.080	1339.	201.
10.5	10.0	.50	21.040	1358.	220.
10.8	10.0	.75	14.360	1358.	220.
11.0	10.0	1.00	11.020	1358.	220.
11.3	10.0	1.25	9.016	1359.	221.
11.5	10.0	1.50	7.680	1359.	221.
11.8	10.0	1.75	6.726	1359.	221.
12.0	10.0	2.00	6.010	1359.	221.
12.3	10.0	2.25	5.453	1359.	221.
12.5	10.0	2.50	5.008	1359.	221.
12.8	10.0	2.75	4.644	1359.	221.
13.0	10.0	3.00	4.340	1359.	221.
13.3	10.0	3.25	4.083	1359.	221.
13.5	10.0	3.50	3.863	1359.	221.
13.8	10.0	3.75	3.672	1359.	221.
14.0	10.0	4.00	3.505	1359.	221.
14.3	10.0	4.25	3.358	1359.	221.
14.5	10.0	4.50	3.227	1359.	221.
14.8	10.0	4.75	3.109	1359.	221.
15.0	10.0	5.00	3.004	1359.	221.
15.5	10.0	5.50	2.822	1359.	221.
16.0	10.0	6.00	2.670	1359.	221.
16.5	10.0	6.50	2.542	1359.	221.
17.0	10.0	7.00	2.431	1359.	221.
17.5	10.0	7.50	2.336	1359.	221.
18.0	10.0	8.00	2.253	1359.	221.
18.5	10.0	8.50	2.179	1359.	221.
19.0	10.0	9.00	2.113	1359.	221.
19.5	10.0	9.50	2.055	1359.	221.
20.0	10.0	10.00	2.002	1359.	221.
21.0	10.0	11.00	1.911	1359.	221.

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ELAPSED TIME	TOTAL FLOW TIME, T	INCREMENTAL SHUT-IN TIME,DT	(T+DT)/DT (HORNER)	PRESSURE	DELTA P
---MIN----	---MIN----	---MIN----	----------	---PSIG---	---PSIG---
		FIRST SHUT-IN			
22.0	10.0	12.00	1.835	1359.	221.
23.0	10.0	13.00	1.771	1359.	221.
24.0	10.0	14.00	1.716	1359.	221.
25.0	10.0	15.00	1.668	1359.	221.
26.0	10.0	16.00	1.626	1359.	221.
27.0	10.0	17.00	1.589	1359.	221.
28.0	10.0	18.00	1.557	1359.	221.
29.0	10.0	19.00	1.527	1359.	221.
30.0	10.0	20.00	1.501	1359.	221.
32.0	10.0	22.00	1.455	1359.	221.
34.0	10.0	24.00	1.418	1359.	221.
36.0	10.0	26.00	1.385	1359.	221.
38.0	10.0	28.00	1.358	1359.	221.
40.0	10.0	30.00	1.334	1359.	221.
42.0	10.0	32.00	1.313	1359.	221.
44.0	10.0	34.00	1.295	1359.	221.
46.0	10.0	36.00	1.278	1359.	221.
48.0	10.0	38.00	1.264	1359.	221.
50.0	10.0	40.00	1.251	1359.	221.
52.0	10.0	42.00	1.239	1359.	221.
54.0	10.0	44.00	1.228	1359.	221.
56.0	10.0	46.00	1.218	1359.	221.
58.0	10.0	48.00	1.209	1359.	221.
60.0	10.0	50.00	1.200	1359.	221.
62.0	10.0	52.00	1.193	1359.	221.
64.0	10.0	54.00	1.186	1359.	221.
66.0	10.0	56.00	1.179	1359.	221.
68.0	10.0	58.00	1.173	1359.	221.
69.7	10.0	59.70	1.168	1359.	221.
		SECOND FLOW			
70.7	11.0			1290.	0.
75.7	16.0			1307.	18.
80.7	21.0			1321.	32.
85.7	26.0			1338.	49.
90.7	31.0			1350.	61.
95.7	36.0			1357.	67.
100.7	41.0			1359.	69.
105.7	46.0			1359.	69.
110.7	51.0			1359.	69.
115.7	56.0			1359.	69.
120.7	61.0			1359.	69.
125.7	66.0			1359.	69.
127.5	67.8			1359.	69.

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INCREMENTAL PRESSURE DATA

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ELAPSED TIME	TOTAL FLOW TIME, T	INCREMENTAL SHUT-IN TIME,DT	(T+DT)/DT (HORNER)	PRESSURE	DELTA P
---MIN----	---MIN----	---MIN----	----------	---PSIG---	---PSIG---
		SECOND SHUT-IN			
127.5	67.8	.00	.000	1359.	0.
127.8	67.8	.25	272.200	1359.	0.
128.0	67.8	.50	136.600	1359.	0.
128.3	67.8	.75	91.400	1359.	0.
128.5	67.8	1.00	68.800	1359.	0.
128.8	67.8	1.25	55.240	1359.	0.
129.0	67.8	1.50	46.200	1359.	0.
129.3	67.8	1.75	39.743	1359.	0.
129.5	67.8	2.00	34.900	1359.	0.
129.8	67.8	2.25	31.133	1359.	0.
130.0	67.8	2.50	28.120	1359.	0.
130.3	67.8	2.75	25.655	1359.	0.
130.5	67.8	3.00	23.600	1359.	0.
130.8	67.8	3.25	21.862	1359.	0.
131.0	67.8	3.50	20.371	1359.	0.
131.3	67.8	3.75	19.080	1359.	0.
131.5	67.8	4.00	17.950	1359.	0.
131.8	67.8	4.25	16.953	1359.	0.
132.0	67.8	4.50	16.067	1359.	0.
132.3	67.8	4.75	15.274	1359.	0.
132.5	67.8	5.00	14.560	1359.	0.
133.0	67.8	5.50	13.327	1359.	0.
133.5	67.8	6.00	12.300	1359.	0.
134.0	67.8	6.50	11.431	1359.	0.
134.5	67.8	7.00	10.686	1359.	0.
135.0	67.8	7.50	10.040	1359.	0.
135.5	67.8	8.00	9.475	1359.	0.
136.0	67.8	8.50	8.976	1359.	0.
136.5	67.8	9.00	8.533	1359.	0.
137.0	67.8	9.50	8.137	1359.	0.
137.5	67.8	10.00	7.780	1359.	0.
138.5	67.8	11.00	7.164	1359.	0.
139.5	67.8	12.00	6.650	1359.	0.
140.5	67.8	13.00	6.215	1359.	0.
141.5	67.8	14.00	5.843	1359.	0.
142.5	67.8	15.00	5.520	1359.	0.
143.5	67.8	16.00	5.238	1359.	0.
144.5	67.8	17.00	4.988	1359.	0.
145.5	67.8	18.00	4.767	1359.	0.
146.5	67.8	19.00	4.568	1359.	0.
147.5	67.8	20.00	4.390	1359.	0.
149.5	67.8	22.00	4.082	1359.	0.
151.5	67.8	24.00	3.825	1359.	0.

SAHARA OPERATING CO.

RIG TESTERS, INC.

STATE SIMS "31" # 1
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INCREMENTAL PRESSURE DATA

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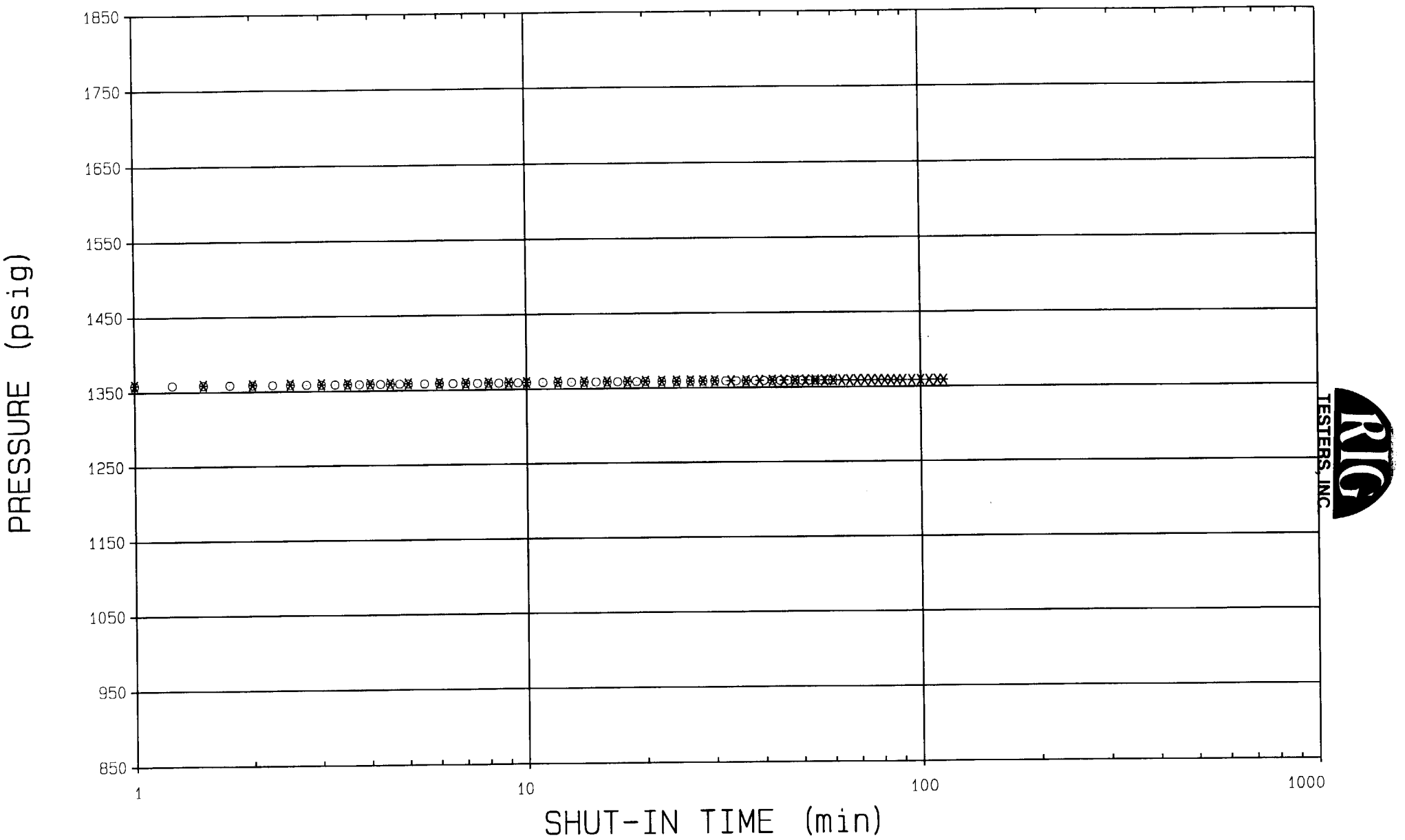
ELAPSED TIME	TOTAL FLOW TIME, T	INCREMENTAL SHUT-IN TIME,DT	(T+DT)/DT (HORNER)	PRESSURE	DELTA P
---MIN----	---MIN----	---MIN----	----------	---PSIG---	---PSIG---
		SECOND SHUT-IN			
153.5	67.8	26.00	3.608	1359.	0.
155.5	67.8	28.00	3.421	1359.	0.
157.5	67.8	30.00	3.260	1359.	0.
159.5	67.8	32.00	3.119	1359.	0.
161.5	67.8	34.00	2.994	1359.	0.
163.5	67.8	36.00	2.883	1359.	0.
165.5	67.8	38.00	2.784	1359.	0.
167.5	67.8	40.00	2.695	1359.	0.
169.5	67.8	42.00	2.614	1359.	0.
171.5	67.8	44.00	2.541	1359.	0.
173.5	67.8	46.00	2.474	1359.	0.
175.5	67.8	48.00	2.413	1359.	0.
177.5	67.8	50.00	2.356	1359.	0.
180.5	67.8	53.00	2.279	1359.	0.
183.5	67.8	56.00	2.211	1359.	0.
186.5	67.8	59.00	2.149	1359.	0.
189.5	67.8	62.00	2.094	1359.	0.
192.5	67.8	65.00	2.043	1359.	0.
195.5	67.8	68.00	1.997	1359.	0.
198.5	67.8	71.00	1.955	1359.	0.
201.5	67.8	74.00	1.916	1359.	0.
204.5	67.8	77.00	1.881	1359.	0.
207.5	67.8	80.00	1.848	1359.	0.
210.5	67.8	83.00	1.817	1359.	0.
213.5	67.8	86.00	1.788	1359.	0.
216.5	67.8	89.00	1.762	1359.	0.
219.5	67.8	92.00	1.737	1359.	0.
222.5	67.8	95.00	1.714	1359.	0.
225.5	67.8	98.00	1.692	1359.	0.
228.5	67.8	101.00	1.671	1359.	0.
231.5	67.8	104.00	1.652	1359.	0.
234.5	67.8	107.00	1.634	1359.	0.
237.5	67.8	110.00	1.616	1359.	0.
240.5	67.8	113.00	1.600	1359.	0.
241.5	67.8	114.00	1.595	1359.	0.

PRESSURE TIME



SAHARA OPERATING CO.

STATE SIMS "31" # 1

○ FIRST SH[illegible]

* SECOND [illegible]

RIG TESTERS, INC.

Well Test Report

RigTesters, Inc.
ABILENE - MIDLAND - GRAHAM

SAHARA OPERATING CO.

Well identification

Well ID	STATE SIMS "31"#1	Well location	N. W. EUNICE
County/District	LEA	State, Country	NEW MEXICO
Company	SAHARA OPER. CO.	Division	MIDLAND

Fluid properties

Prod/Inj fluid	WATER	GOR	N/A
Water cut	100%	Condensate yield	UNKNOWN
API gravity	N/A	Gas spec. grav.	0.675
Viscosity	0.75448 cp	Pseudo-critical T	377.17 deg R
Pseudo-critical P	666.05 psia	H2S mole fraction	UNKNOWN
CO2 mole fraction	UNKNOWN	N2 mole fraction	UNKNOWN
Compressibility(t)	7.1933 e-6/psi	Formation vol factor	1.0028 RB/STB

Reservoir properties

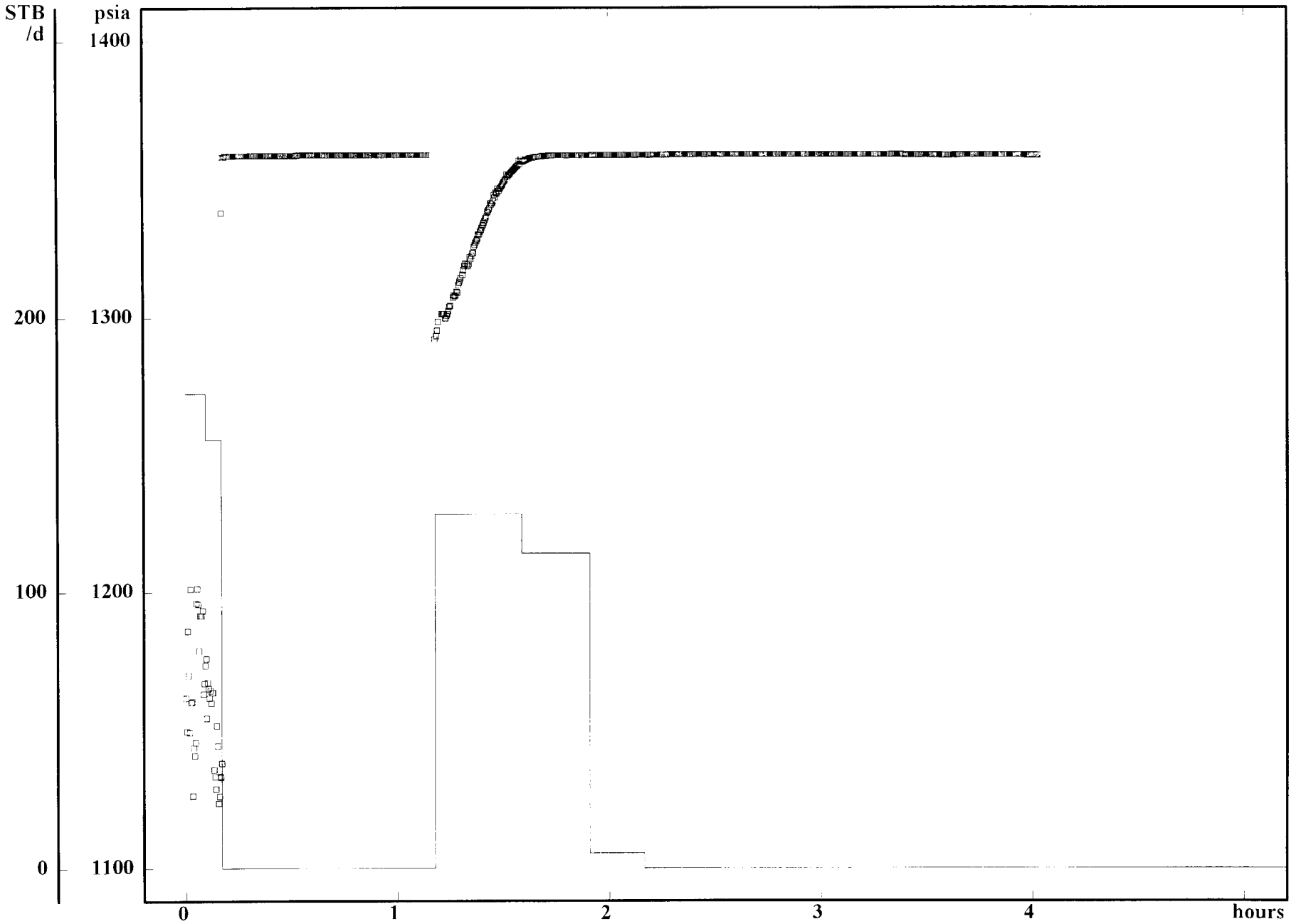
Porosity	0.2 frac	Formation thickness	9 ft
Wellbore radius	0.32813 ft	Prod-observer distance	N/A
Water-Oil Contact	UNKNOWN	Gas-Oil Contact	N/A
Gas-Water Contact	N/A	Rock compressibility	
Reservoir temperature	93 deg F	Pressure for properties	1359.2 psia

Comments

THE DERIVATIVES INDICATE MULTIPLE (FRACTURED & MATRIX) POROSITY WITHIN INTERVAL TESTED. THE DIPS BELOW RADIAL FLOW REGIME ON THE DERIVATIVE CURVE IS INDICATIVE OF FRACTURED POROSITY. THE CALCULATIONS WERE BASED ON THE INITIAL SHUT-IN CURVE DUE TO THE EQUALIZATION OF FINAL FLOW AND FINAL SHUT-IN PERIODS. THE FIXED PARAMETERS USED WERE AN EST. 20% POROSITY WITH 9 FT. OF NET PAY AND AVERAGE PRODUCTION OF 172 BBLS. OF FLUID (WATER) FOR THE FIRST FLOW PERIOD. THE RATES WERE BASED ON DENSITY OF FLUID RECOVERED VS. THE FLOWING PRESSURES. THE RADIUS OF INVESTIGATION CALCULATED TO 1436 FT. FROM THE WELLBORE.

SAHARA OPERATING CO. STATE SIMS "31" #1

Pressure and flow rate vs time during test sequence

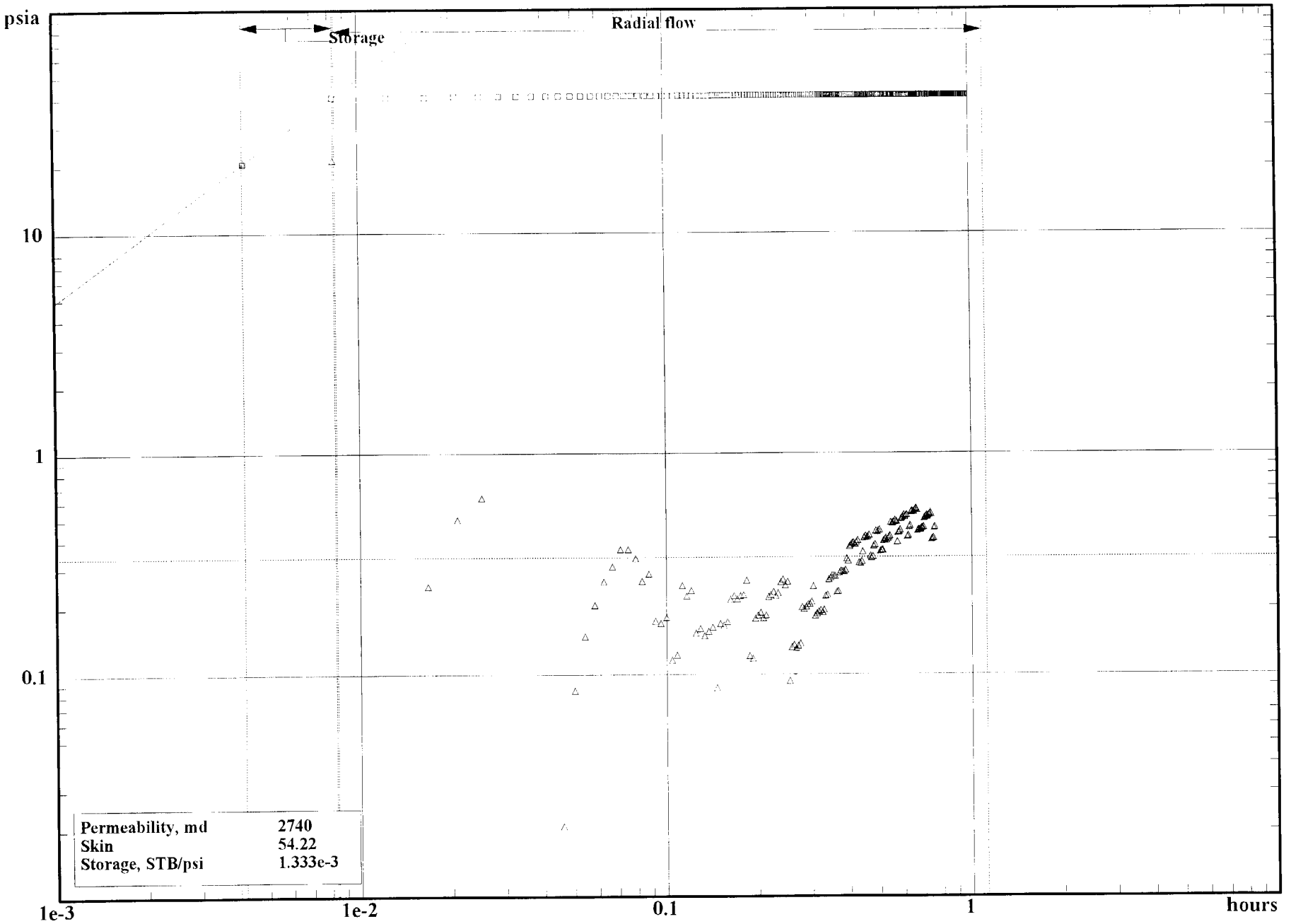


RIG TESTERS, INC.

DST #2 4017 - 4053 FT. SEVEN RIVERS

SAHARA OPERATING CO. STATE SIMS "31" #1

Diagnostic plot (pressure & time)

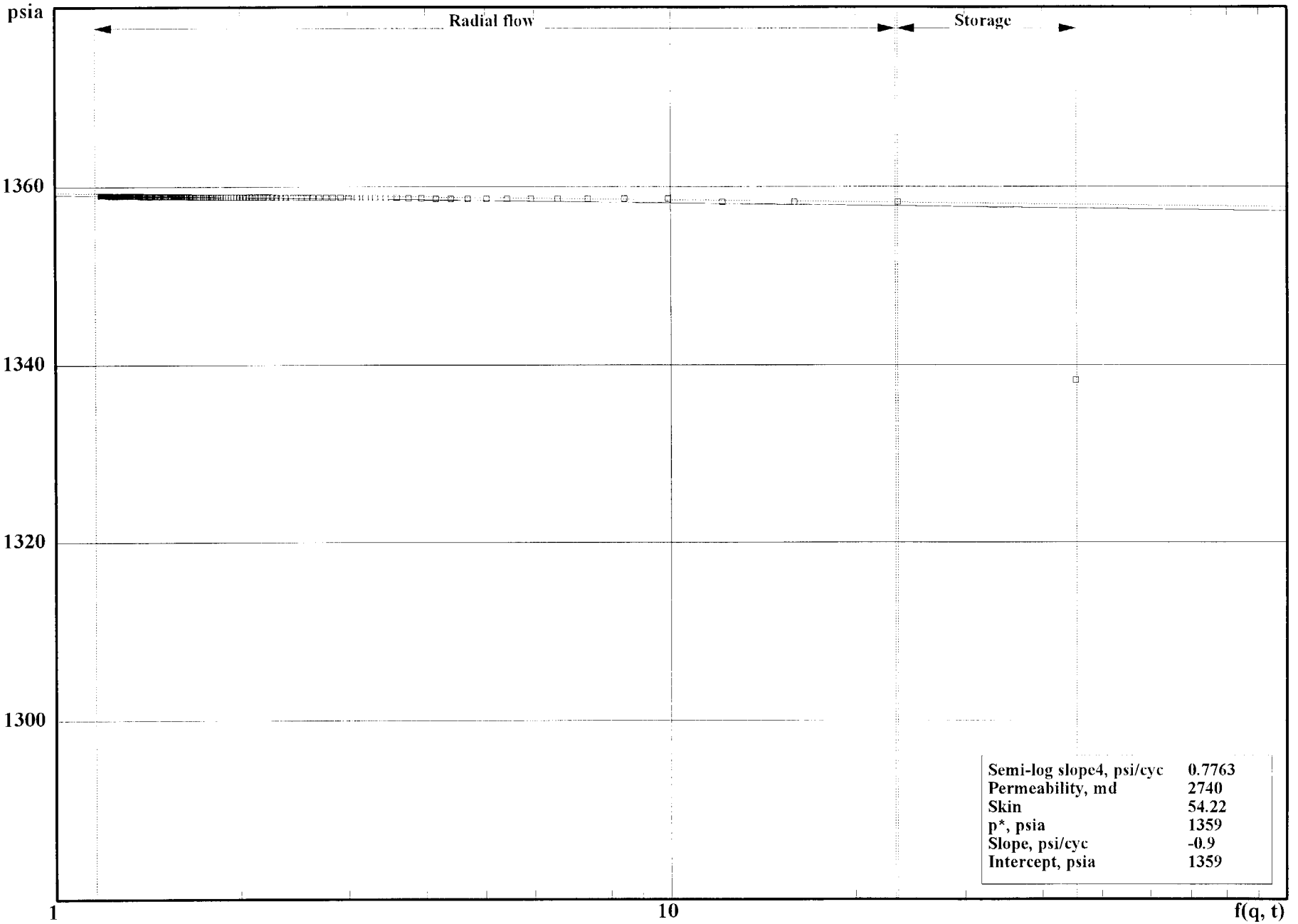


RIG TESTERS, INC.

INITIAL SHUT-IN PERIOD DST #2

SAHARA OPERATING CO. STATE SIMS "31" #1

Variable rate Horner plot (pressure & time)



RIG TESTERS, INC.

INITIAL SHUT-IN PERIOD DST #2