FLOPETROL JOHNSTON
Schlumberger

WELL PERFORMANCE TESTING™ REPORT

A Production System Analysis (NODAL™)
Based On Drillstem Test Data

TEST DATE: 19-NOV-84

REPORT NO. 54099E

Company: AMOCO PRODUCTION CO.

Well: SALMON RANCH B-1

TEST IDENTIFICATION

Test Type	OPEN HOLE/TELE
Test No.	ONE
Formation	PENN
Test Interval (ft)	4678/4732 54FT

WELL LOCATION

Field	WILDCAT
County	MORA
State	NEW MEXICO
Sec/Twn/Rng	S21T21NR17E

HOLE CONDITIONS

Total Depth (MD/TVD) (ft)	4732
Hole Size (in)	8.75
Csg/Liner I.D. (in)	--
Perf'd Interval (ft)	--
Shot Density/Diameter (in)	--

MUD PROPERTIES

Mud Type	LSND
Mud Weight (lb/gal)	9.0
Mud Resistivity (OHM-M)	4.6 @ 45
Filtrate Resistivity (OHM-M)	--
Filtrate Chlorides (PPM)	350

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi)	2220
Gas Cushion Type	NONE
Surface Pressure (psi)	--
Liquid Cushion Type	NONE
Cushion Length (ft)	--

TEST STRING CONFIGURATION

Pipe Length (ft)/I.D. (in)	4078/3.83
Collar Length (ft)/I.D. (in)	556/2.25
Packer Depth(s) (ft)	4672/4678
BH Choke Size (in)	0.94

NET PIPE RECOVERY

Volume	Fluid Type	Properties
.05 Bbl 10FT	MUD	4.6 @ 45 350 ppm

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
2400 CC.	MUD	4.6 @ 45 350 ppm

Pressure: 18 GOR: GLR:

INTERPRETATION RESULTS

Reservoir Pres(psi)/Depth(ft)	--
Gauge Depth (ft)/Ref	--
Effective Permeability (md)	--
Transmissibility (md-ft/cp)	--
Skin Factor/Damage Ratio	--
Radius of Investigation (ft)	--

ROCK/FLUID/WELLBORE PROPERTIES

Analysis Fluid Type	--
Viscosity (cp)	--
Net Pay (ft)	--
Porosity	--
Wellbore Radius (ft)	--
Reservoir Temp (F)	140

PRODUCTION RATE DURING TEST:

MAXIMUM PRODUCTION RATE POTENTIAL

Comments:

DST #1 WAS MECHANICALLY SUCCESSFUL AND SHOWED A DEAD RESERVOIR.

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DST EVENT SUMMARY

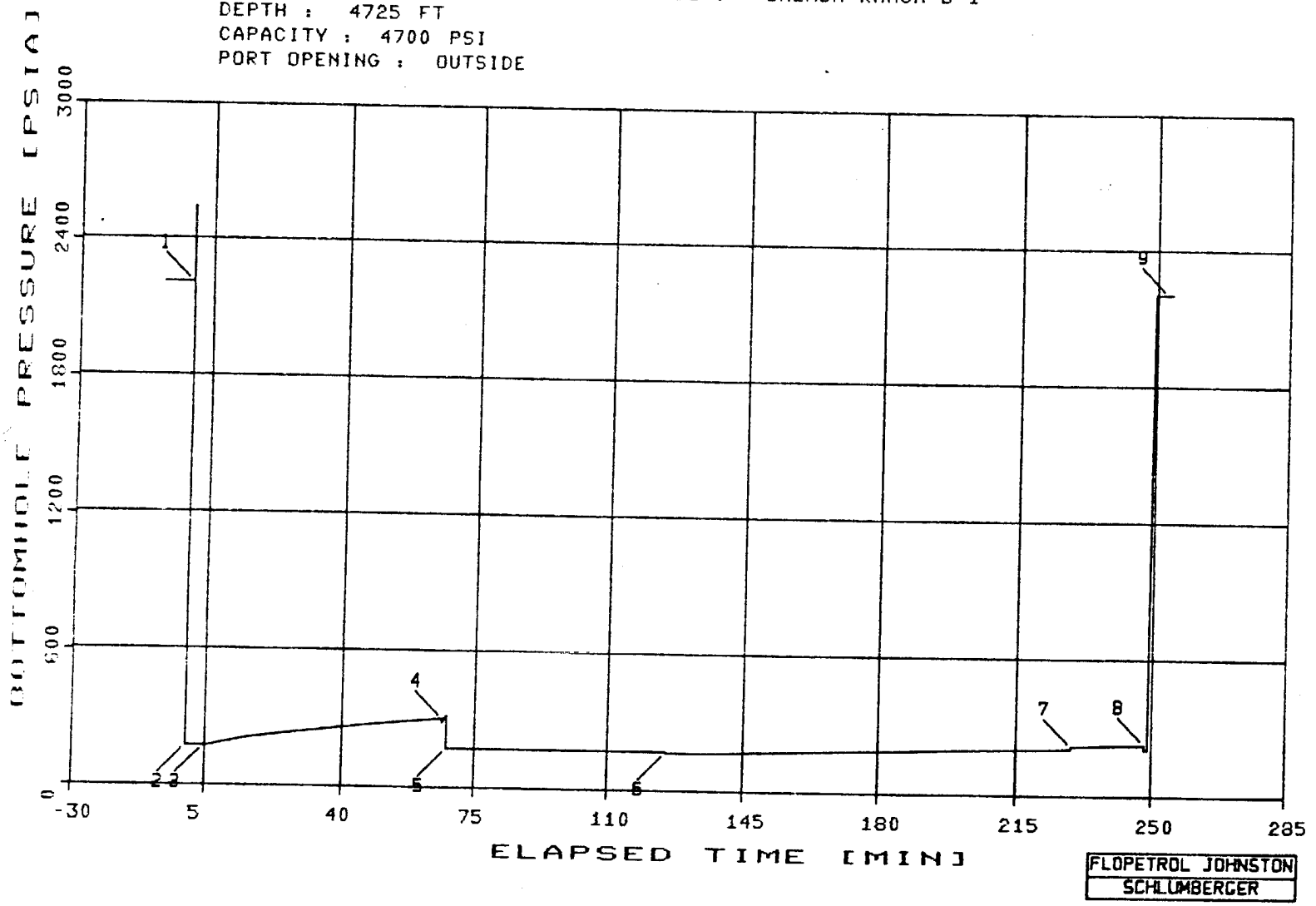
Field Report # 54099E

DATE (M/D/Y)	TIME (HR:MIN)	EVENT E.T. (MIN)	EVENT DESCRIPTION	SURFACE PRESSURE (PSIG)	FLOOR MANIFOLD CHOKE SIZE (INCH)
1.-19	12:00	—	SET PACKER		
	12:02	—	OPENED TEST TOOL FOR INITIAL FLOW	.05	CLOSED CHAMBER
	12:05			.20	
	12:07	—	CLOSED TEST TOOL FOR INITIAL SHUT-IN	.04	
	13:10	—	OPENED TEST TOOL FOR FINAL FLOW	.02	CLOSED CHAMBER
			PRESSURES FLUCTUATED BETWEEN 0.0 AND 0.5 PSIG THROUGHOUT THE FINAL FLOW.		
	14:10	—	CLOSED TEST TOOL FOR FINAL SHUT-IN	.02	
	16:10	—	FINISHED FINAL SHUT-IN		
	16:14	—	UNSEATED PACKER		
	16:55	—	REVERSED OUT		
		—	BEGAN TRIP OUT OF HOLE		

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 54099E
INSTRUMENT NO. J-1118
DEPTH : 4725 FT
CAPACITY : 4700 PSI
PORT OPENING : OUTSIDE

COMPANY : AMOCO PRODUCTION CO.
WELL : SALMON RANCH B-1



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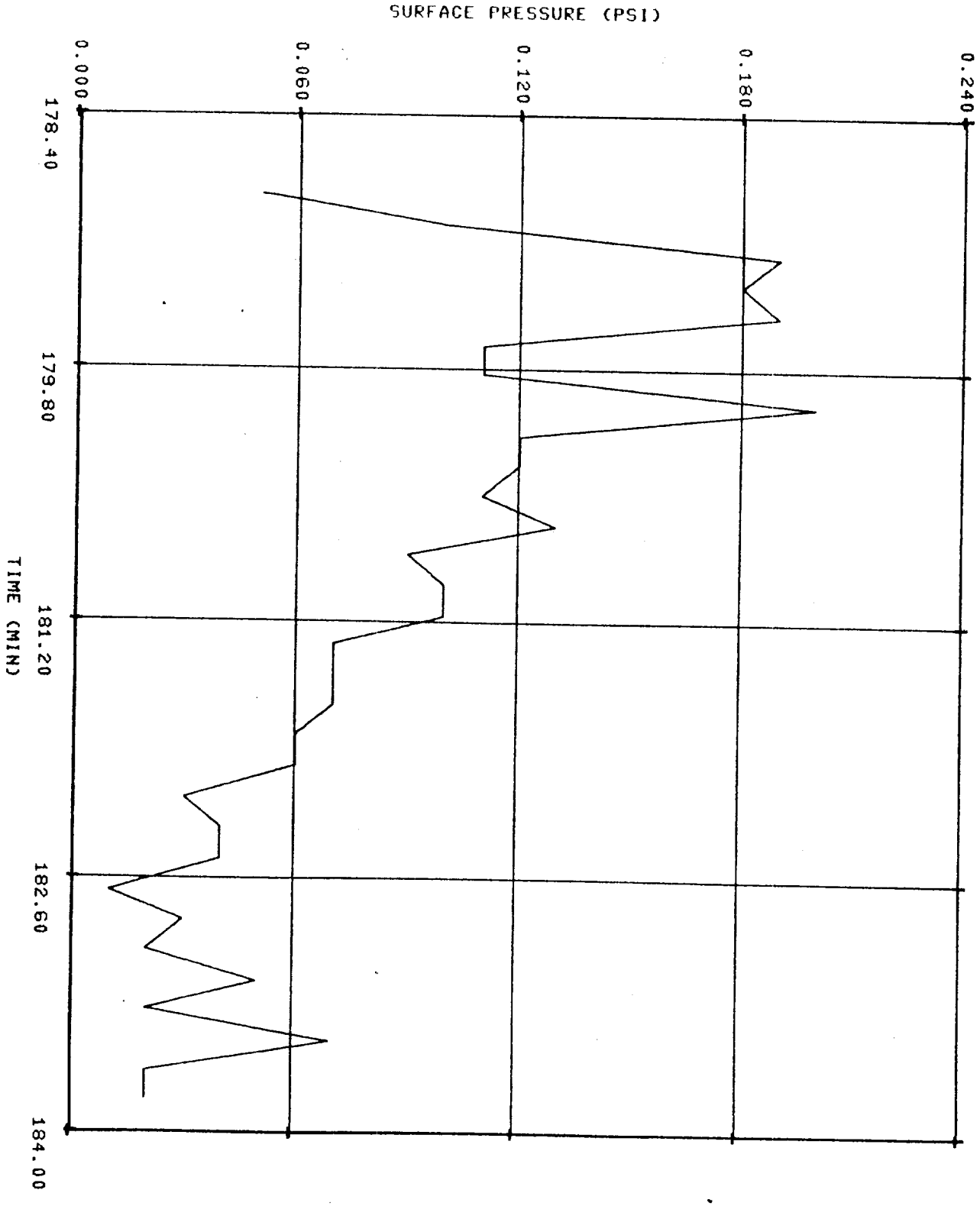
WELL TEST INTERPRETATION REPORT #:54099 CLIENT : AMOCO PRODUCTION CO.		PAGE: 6,SEC 1 21-NOV-84
REGION :MID-CONT DISTRICT:HOBBS BASE :HOBBS Engr :J MILLER	SURFACE PRESSURE PLOT INITIAL FLOW	Field:WILDCAT Zone :PENN Well :SALMON B-1 Location:S21T21NR17E

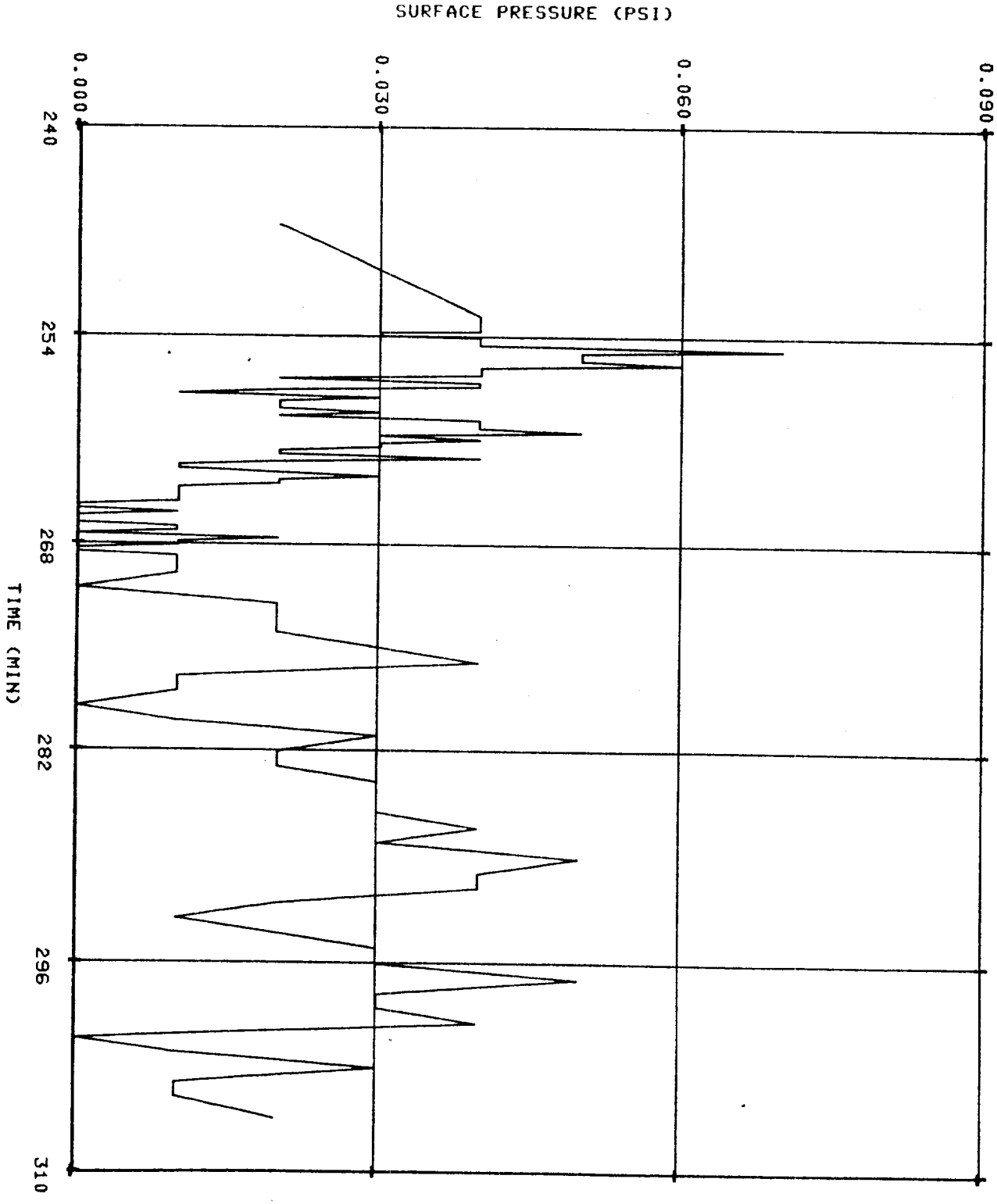
FORM# 11.00-010284



FLOPETROL JOHNSTON SCHLUMBERGER

WELL TEST INTERPRETATION REPORT #:54099 CLIENT : AMOCO PRODUCTION CO.		PAGE: 7,SEC 1 21-NOV-84
REGION :MID-CONT DISTRICT:HOBBS BASE :HOBBS Engr :J MILLER	SURFACE PRESSURE PLOT FINAL FLOW	Field:WILDCAT Zone :PENN Well :SALMON B-1 Location:S21T21NR17E

FORM# 11.00-010284



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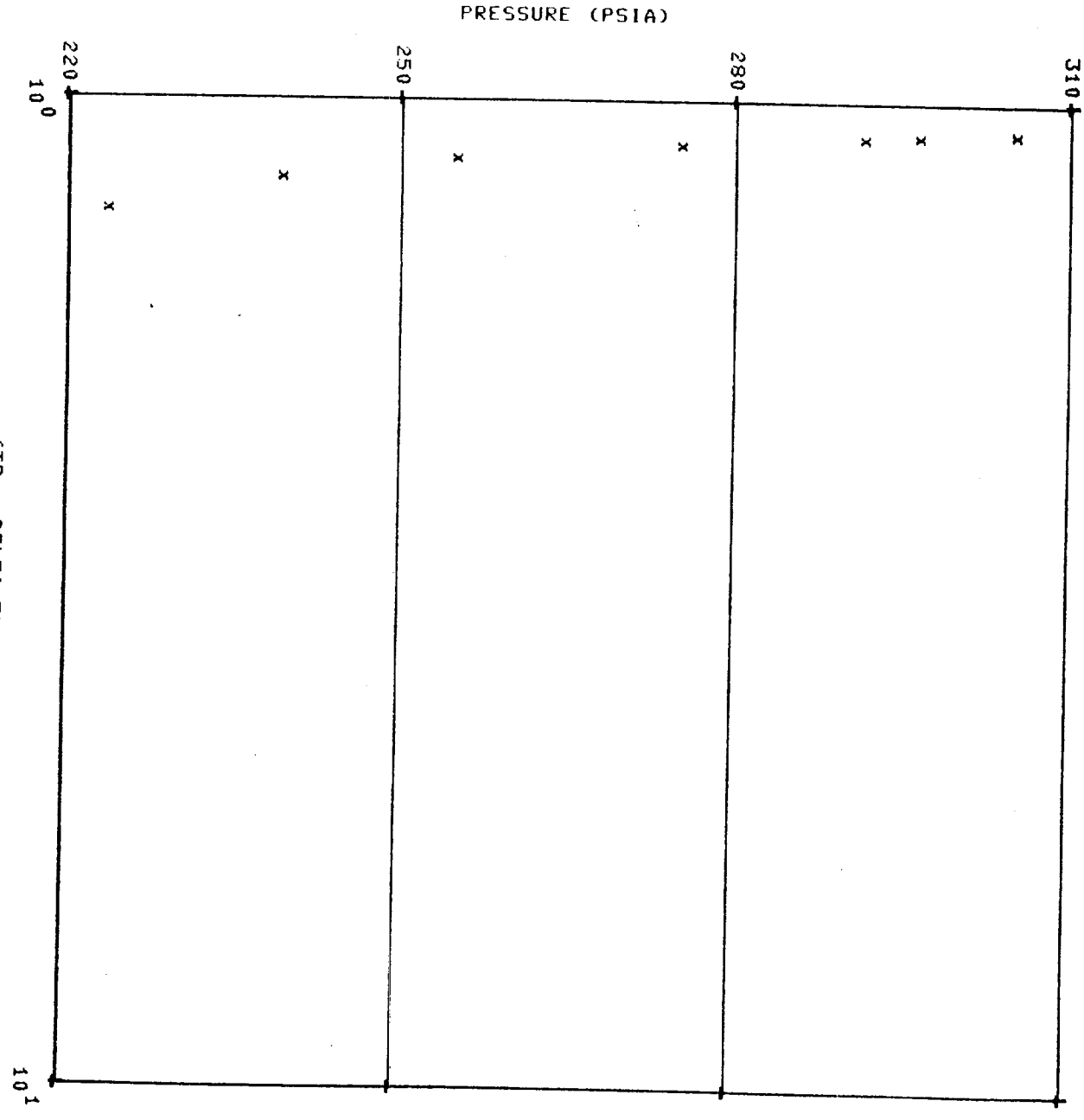
WELL TEST INTERPRETATION REPORT #:54099E CLIENT : AMOCO PRODUCTION CO.		PAGE: 4,SEC 1 21-NOV-84
REGION :MID-CONT DISTRICT:HOBBS BASE :HOBBS Engr :J MILLER	HORNER PLOT INITIAL SHUT-IN	Field:WILDCAT Zone :PENN Well :SALMON B-1 Location:S21T21NR17E



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HORNER PLOT: Production Time = 4.600

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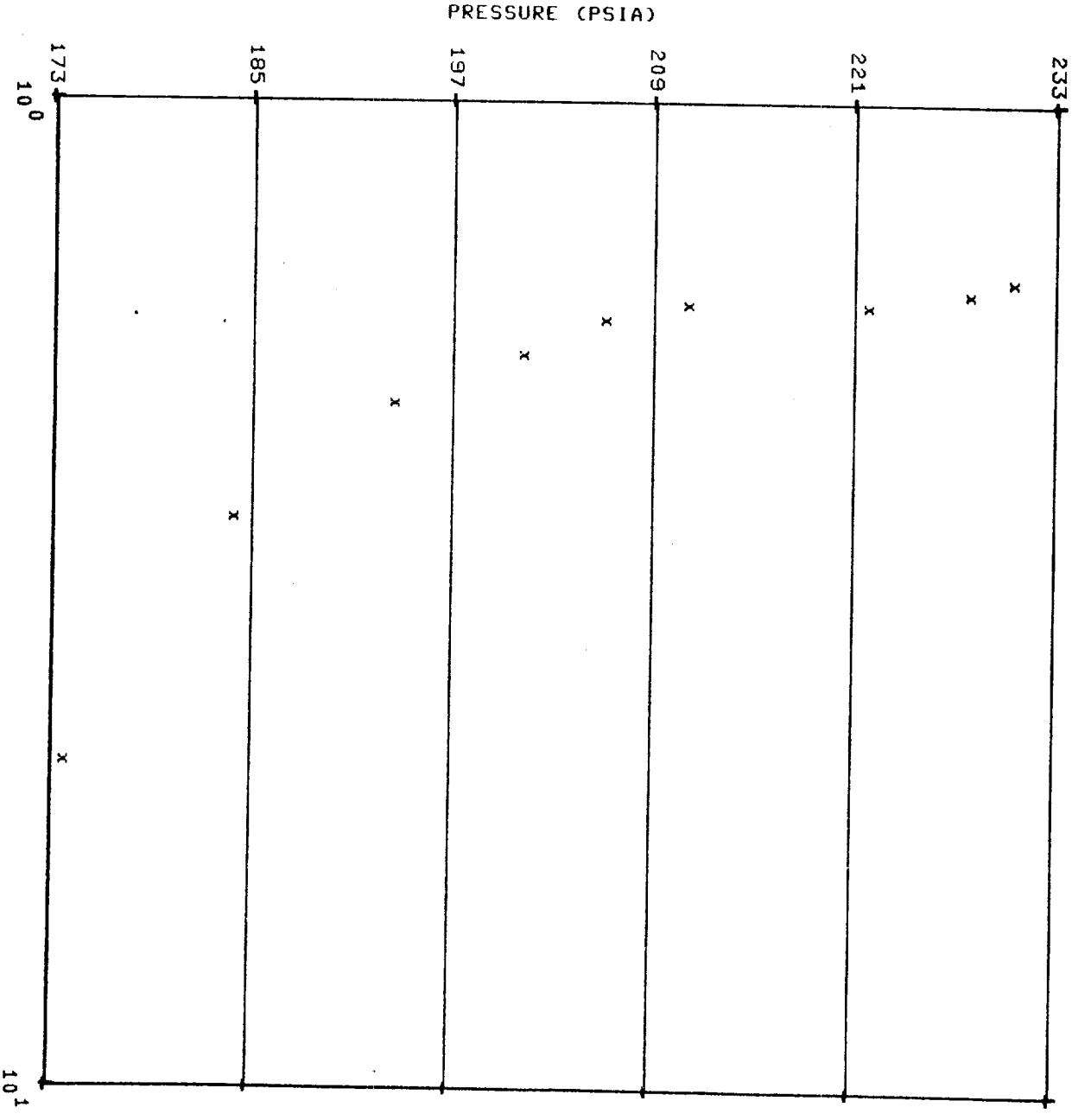
REGION :MID-CONT DISTRICT:HOBBS BASE :HOBBS Engr :J MILLER	HORNER PLOT FINAL SHUT-IN	Field:WILDCAT Zone :PENN Well :SALMON B-1 Location:S21T21NR17E

FORM 11.00-01U284



HORNER PLOT: Production Time = 62.29

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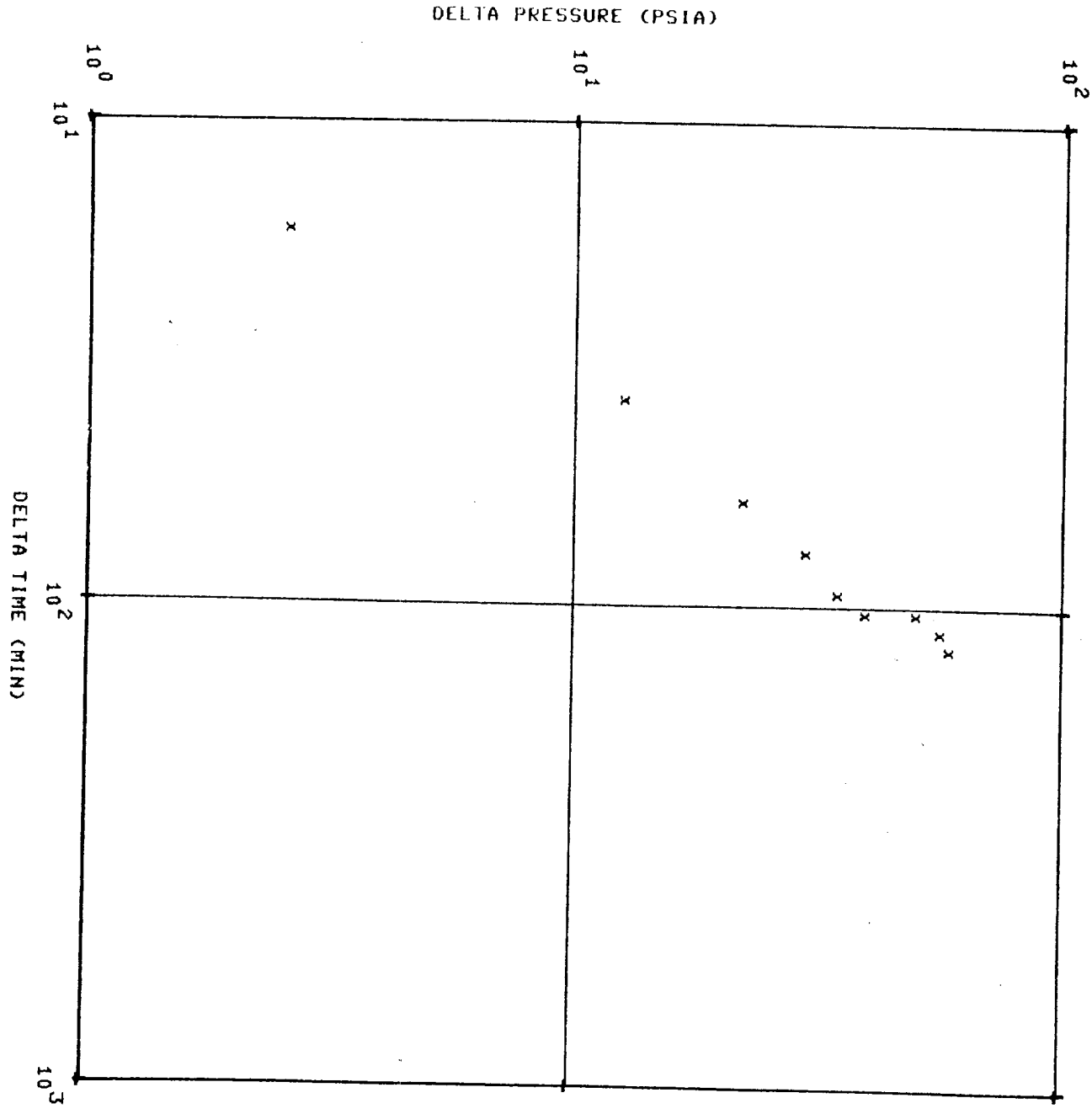
WELL TEST INTERPRETATION REPORT #:54099E CLIENT : AMOCO PRODUCTION CO.		PAGE: 3,SEC 1 21-NOV-84
REGION :MID-CONT DISTRICT:HOBBS BASE :HOBBS Engr :J MILLER	LOG-LOG PLOT FINAL SHUT-IN	Field:WILDCAT Zone :[illegible] Well :SALMON B-1 Location:S21T21NR17E

FORM# 11.00-010284



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SCHLUMBERGER

********** **********
* WELL TEST DATA PRINTOUT *
********** **********

FIELD REPORT # : 54099E

COMPANY : AMOCO PRODUCTION CO.
WELL : SALMON RANCH B-1

INSTRUMENT # : J-1118
CAPACITY [PSI] : 4700.
DEPTH [FT] : 4725.0
PORT OPENING : OUTSIDE
TEMPERATURE [DEG F] : 140.0

LABEL POINT INFORMATION

#	TIME OF DAY HH:MM:SS	DATE DD-MM	EXPLANATION	ELAPSED TIME,MIN	BOT HOLE PRESSURE PSIA
1	12: 1: 4	19-NO	HYDROSTATIC MUD	-0.93	2215
2	12: 2: 0	19-NO	START FLOW	0.00	174
3	12: 6:36	19-NO	END FLOW & START SHUT-IN	4.60	174
4	13: 8:12	19-NO	END SHUT-IN	66.20	305
5	13: 9:23	19-NO	START FLOW	67.39	171
6	14: 7: 5	19-NO	END FLOW & START SHUT-IN	125.08	171
7	15:50:56	19-NO	SQUEEZE PRESSURE	228.94	222
8	16:10: 0	19-NO	END SHUT-IN	248.00	231
9	16:14:32	19-NO	HYDROSTATIC MUD	252.54	2209

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME,MIN	END ELAPSED TIME,MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
1	0.00	4.60	4.60	174	174
2	67.39	125.08	57.69	171	171

SUMMARY OF SHUTIN PERIODS

PERIOD	START ELAPSED TIME,MIN	END ELAPSED TIME,MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	4.60	66.20	61.60	174	305	174	4.60
2	125.08	248.00	122.92	171	231	171	62.29

TEST PHASE : FLOW PERIOD # 1

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
12: 2: 0	19-NO	0.00	0.00	174
12: 6:36	19-NO	4.60	4.60	174

TEST PHASE : SHUTIN PERIOD # 1

FINAL FLOW PRESSURE [PSIA] = 174

PRODUCING TIME [MIN] = 4.60

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
12: 6:36	19-NO	4.60	0.00	174	0	
12: 7:36	19-NO	5.60	1.00	178	4	0.748
12: 8:36	19-NO	6.60	2.00	182	7	0.519
12: 9:36	19-NO	7.60	3.00	185	11	0.404
12:10:36	19-NO	8.60	4.00	189	15	0.332
12:11:36	19-NO	9.60	5.00	193	19	0.283
12:12:36	19-NO	10.60	6.00	196	22	0.247
12:13:36	19-NO	11.60	7.00	200	26	0.219
12:14:36	19-NO	12.60	8.00	204	30	0.197
12:15:36	19-NO	13.60	9.00	207	33	0.179
12:16:36	19-NO	14.60	10.00	211	37	0.164
12:18:36	19-NO	16.60	12.00	216	42	0.141
12:20:36	19-NO	18.60	14.00	221	47	0.123
12:22:36	19-NO	20.60	16.00	226	52	0.110
12:24:36	19-NO	22.60	18.00	230	56	0.099
12:26:36	19-NO	24.60	20.00	234	60	0.090
12:28:36	19-NO	26.60	22.00	239	65	0.082
12:30:36	19-NO	28.60	24.00	243	69	0.076
12:32:36	19-NO	30.60	26.00	246	72	0.071
12:34:36	19-NO	32.60	28.00	250	76	0.066
12:36:36	19-NO	34.60	30.00	254	80	0.062
12:41:36	19-NO	39.60	35.00	263	89	0.054
12:46:36	19-NO	44.60	40.00	273	99	0.047
12:51:36	19-NO	49.60	45.00	281	107	0.042
12:56:36	19-NO	54.60	50.00	289	115	0.038
13: 1:36	19-NO	59.60	55.00	296	122	0.035
13: 6:36	19-NO	64.60	60.00	303	129	0.032
13: 8:12	19-NO	66.20	61.60	305	131	0.031

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
13: 9:23	19-NO	67.39	0.00	171
13:14:23	19-NO	72.39	5.00	171
13:19:23	19-NO	77.39	10.00	171
13:24:23	19-NO	82.39	15.00	171
13:29:23	19-NO	87.39	20.00	171
13:34:23	19-NO	92.39	25.00	171
13:39:23	19-NO	97.39	30.00	171
13:44:23	19-NO	102.39	35.00	171
13:49:23	19-NO	107.39	40.00	171
13:54:23	19-NO	112.39	45.00	171
13:59:23	19-NO	117.39	50.00	171
14: 4:23	19-NO	122.39	55.00	171
14: 7: 5	19-NO	125.08	57.69	171

TEST PHASE : SHUTIN PERIOD # 2

FINAL FLOW PRESSURE [PSIA] = 171

PRODUCING TIME [MIN] = 62.29

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
14: 7: 5	19-NO	125.08	0.00	171	0	
14: 8: 5	19-NO	126.08	1.00	166	-5	1.801
14: 9: 5	19-NO	127.08	2.00	167	-5	1.507
14:10: 5	19-NO	128.08	3.00	167	-4	1.338
14:11: 5	19-NO	129.08	4.00	168	-4	1.219
14:12: 5	19-NO	130.08	5.00	168	-3	1.129
14:13: 5	19-NO	131.08	6.00	169	-3	1.056
14:14: 5	19-NO	132.08	7.00	169	-2	0.996
14:15: 5	19-NO	133.08	8.00	170	-2	0.944
14:16: 5	19-NO	134.08	9.00	170	-1	0.899
14:17: 5	19-NO	135.08	10.00	171	-1	0.859
14:19: 5	19-NO	137.08	12.00	171	0	0.792
14:21: 5	19-NO	139.08	14.00	172	1	0.736
14:23: 5	19-NO	141.08	16.00	173	2	0.690
14:25: 5	19-NO	143.08	18.00	174	3	0.649
14:27: 5	19-NO	145.08	20.00	175	4	0.614
14:29: 5	19-NO	147.08	22.00	176	5	0.583
14:31: 5	19-NO	149.08	24.00	177	6	0.556
14:33: 5	19-NO	151.08	26.00	178	7	0.531
14:35: 5	19-NO	153.08	28.00	179	8	0.508
14:37: 5	19-NO	155.08	30.00	180	9	0.488
14:42: 5	19-NO	160.08	35.00	183	11	0.444
14:47: 5	19-NO	165.08	40.00	185	14	0.408
14:52: 5	19-NO	170.08	45.00	187	16	0.377
14:57: 5	19-NO	175.08	50.00	189	18	0.351

TEST PHASE : SHUTIN PERIOD # 2
FINAL FLOW PRESSURE [PSIA] = 171
PRODUCING TIME [MIN] = 62.29

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
15: 2: 5	19-NO	180.08	55.00	191	20	0.329
15: 7: 5	19-NO	185.08	60.00	193	22	0.309
15:12: 5	19-NO	190.08	65.00	196	24	0.292
15:17: 5	19-NO	195.08	70.00	198	27	0.276
15:22: 5	19-NO	200.08	75.00	200	29	0.263
15:27: 5	19-NO	205.08	80.00	202	31	0.250
15:32: 5	19-NO	210.08	85.00	204	32	0.239
15:37: 5	19-NO	215.08	90.00	205	34	0.228
15:42: 5	19-NO	220.08	95.00	207	35	0.219
15:47: 5	19-NO	225.08	100.00	209	38	0.210
15:52: 5	19-NO	230.08	105.00	223	51	0.202
15:57: 5	19-NO	235.08	110.00	226	55	0.195
16: 2: 5	19-NO	240.08	115.00	228	57	0.188
16: 7: 5	19-NO	245.08	120.00	230	58	0.182
16:10: 0	19-NO	248.00	122.92	231	59	0.178