



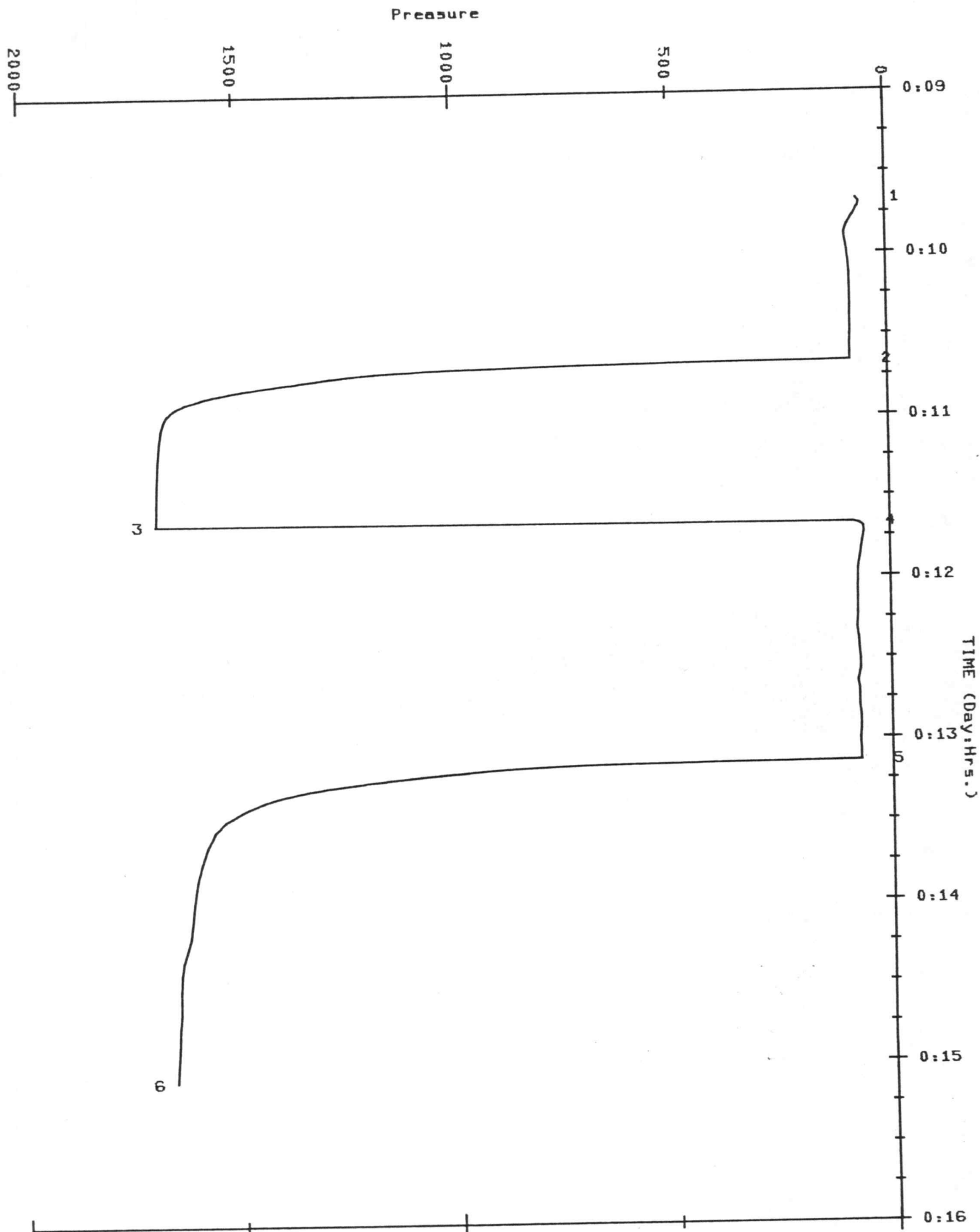
# HALLIBURTON SERVICES

Lease Name ALTON UNRUH  
Lease Owner M. L. BROWN

Well No. 3  
Date 3-28-82

Test No. 3  
Ticket No. 319302

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Lease Name ALTON UNRUH Well No. 3 Test No. 3  
Lease Owner M. L. BROWN Date 3-28-82 Ticket no. 319302  
Gauge Sn. 007500

loc.	Time	Description	Press.	Delta t	Time int.
0	0:09:40:00	Start Time			
1	0:09:40:00	inital flow # 1	60.12	0.000	0 1
2	0:10:39:37	final flow # 1	85.17	59.617	1 2
3	0:11:39:06	closed in # 1	1687.02	59.483	2 3
4	0:11:39:57	inital flow # 2	82.22	.850	3 4
5	0:13:08:05	final flow # 2	71.51	88.133	4 5
6	0:15:06:20	closed in # 2	1654.65	118.250	5 6

Time	Press.	Temp	Delta t	Ps	P10	CCc	
0:09:41:12	60.12	92					inital flow # 1
0:09:42:49	61.98	92	2.8				
0:09:45:56	73.58	92	5.9				
0:09:49:36	87.62	92	9.6				
0:09:52:24	94.20	92	12.4				
0:09:55:38	91.16	92	15.6				
0:09:58:53	87.52	92	18.9				
0:10:02:43	85.07	92	22.7				
0:10:07:43	82.91	92	27.7				
0:10:11:36	82.71	92	31.6				
0:10:17:07	82.71	92	37.1				
0:10:22:26	83.79	92	42.4				
0:10:27:36	83.60	92	47.6				
0:10:33:30	85.36	92	53.5				
0:10:37:06	85.36	92	57.1				
0:10:39:37	85.17	92	59.6				final flow # 1
0:10:39:45	150.88	92	.1				
0:10:39:55	262.57	92	.3				
0:10:40:04	393.71	92	.5				
0:10:40:20	509.47	92	.7				
0:10:40:37	624.61	92	1.0				
0:10:40:56	734.67	92	1.3	123.25	74.95	.936271	
0:10:41:15	830.66	92	1.6	202.61	112.32	.980414	
0:10:41:39	929.88	92	2.0	262.01	137.60	.988061	
0:10:42:05	1029.71	92	2.5	319.73	159.83	.993018	
0:10:42:41	1113.98	92	3.1	354.43	171.57	.997687	
0:10:43:38	1205.05	92	4.0	359.59	172.58	.999006	
0:10:44:58	1288.74	92	5.3	347.52	169.20	.999050	
0:10:46:19	1357.09	92	6.7	337.88	167.76	.999830	
0:10:47:52	1433.50	92	8.3	348.88	169.60	.999352	
0:10:49:28	1500.87	92	9.8	354.53	171.31	.998812	
0:10:51:40	1570.45	92	12.0	393.77	169.70	.997524	
0:10:53:48	1617.15	92	14.2	403.91	167.52	.999618	
0:10:55:45	1642.93	92	16.1	391.28	169.81	.998557	
0:10:57:51	1658.43	92	18.2	379.02	171.88	.997324	
0:11:00:17	1667.34	92	20.7	364.37	174.13	.998501	
0:11:03:28	1673.74	92	23.9	360.92	173.34	.997897	
0:11:08:21	1677.91	92	28.7	276.24	225.70	.952492	
0:11:15:19	1681.78	92	35.7	264.97	234.82	.964347	
0:11:23:47	1684.50	92	44.2	260.31	239.52	.980331	
0:11:31:40	1685.95	92	52.1	258.11	242.29	.993123	
0:11:39:07	1687.02	92	59.5	257.12	243.77	.992778	closed in # 1

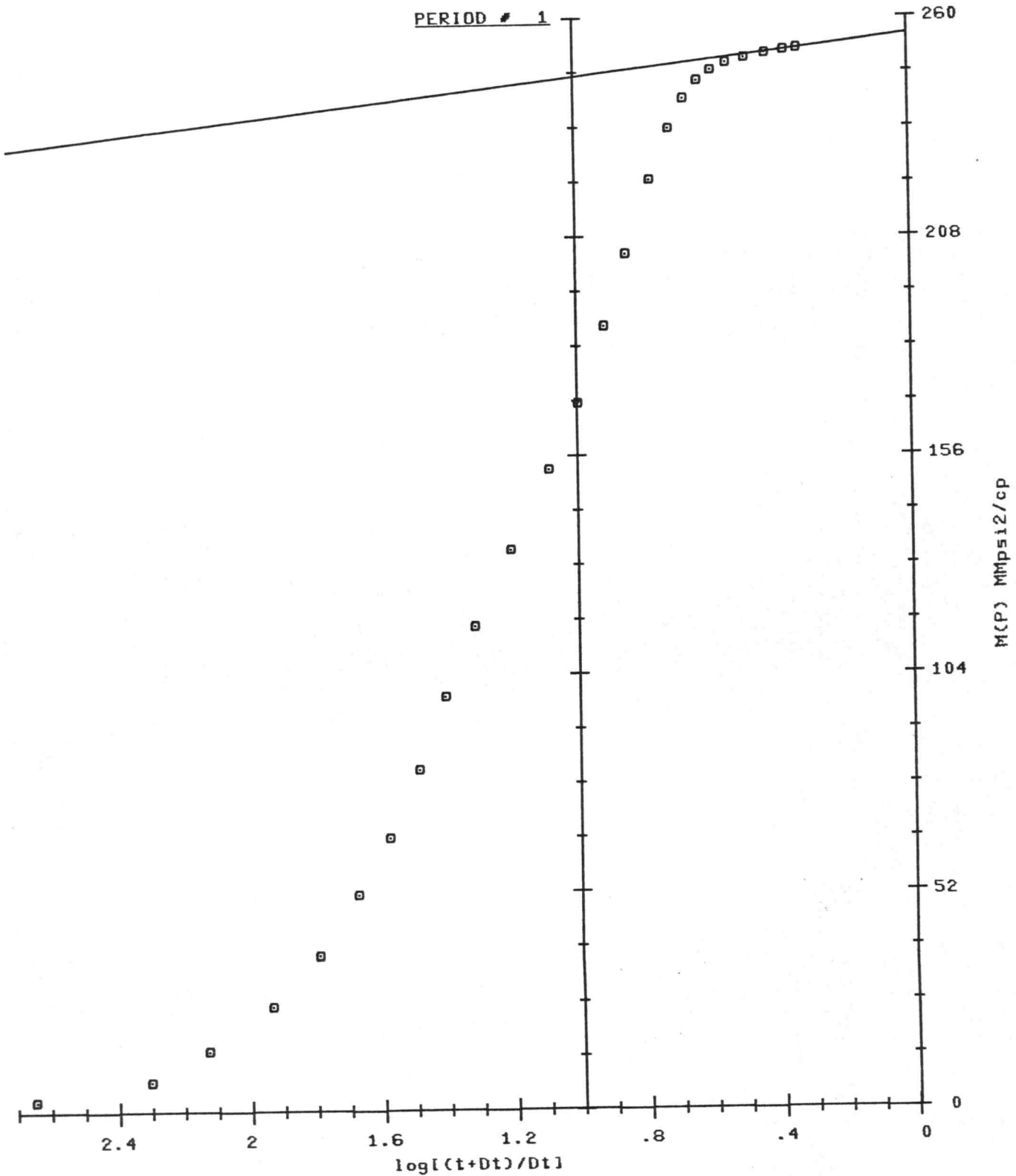
Lease Name ALTON UNRUH  
Lease Owner M. L. BROWN  
Gauge Sn. 007500

Well No. 3  
Date 3-28-82

Test no. 3  
Ticket no. 319302

HORNER PLOT  
 $P_s = 1697.72$   
 $P_{10} = 1662.21$   
 $M(P_s) = 255.92$   
 $M(P_{10}) = 246.17$

PERIOD # 1



NOTICE: THIS INFORMATION IS SUBJECT TO THE LIMITATION OF LIABILITY PROVISIONS ON PAGE 1.

Lease Name ALTON UNRUH

Well No. 3

TEST NO. 4

Lease Owner M. L. BROWN

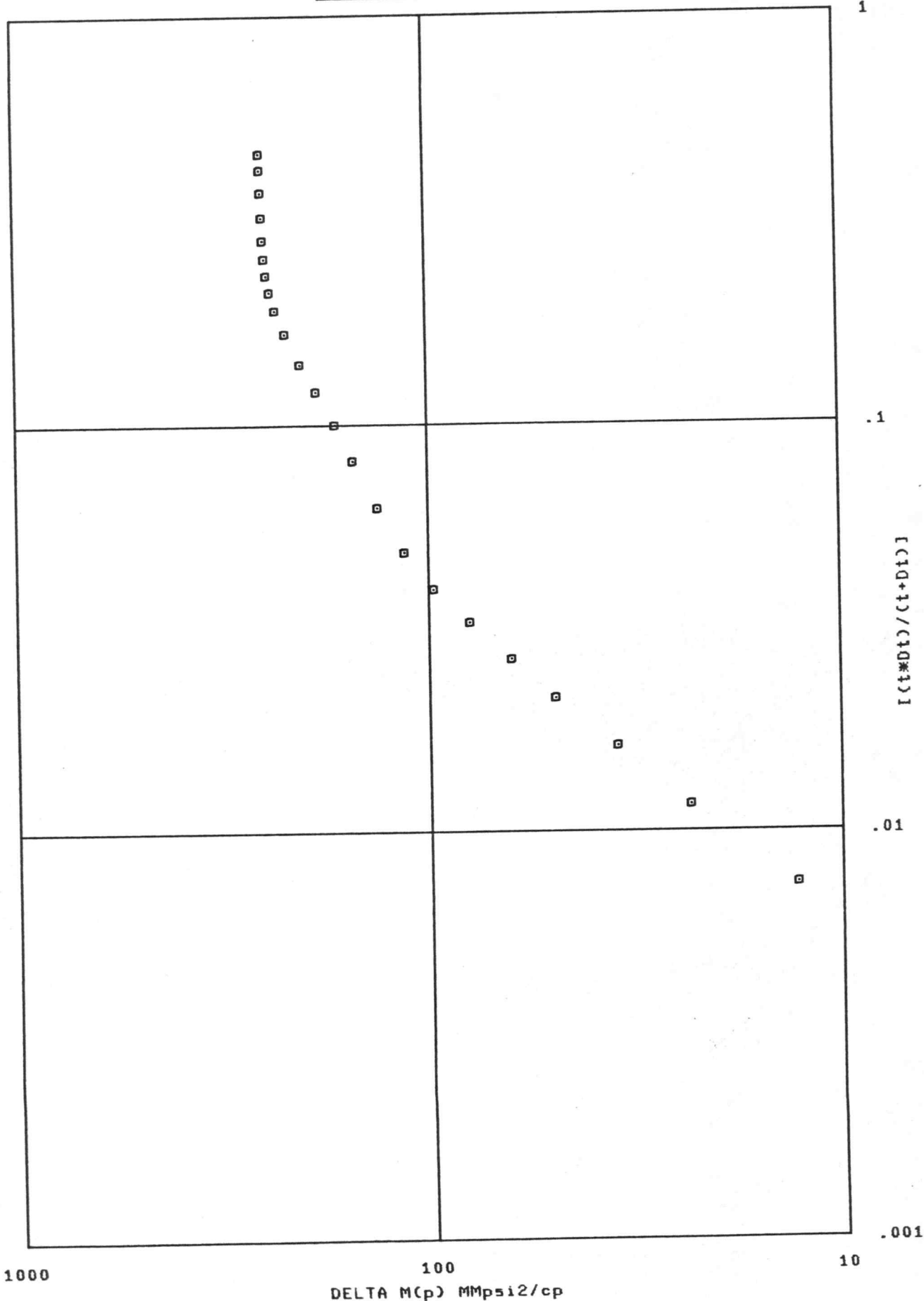
Date 3-28-82

Ticket no. 319302

Gauge Sn. 007500

Log-Log PLOT

PERIOD # 1



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Time	Press.	Temp	Delta t	Ps	P10	CCc	
0:11:39:57	82.22	92					initial flow # 2
0:11:40:32	68.66	92	.6				
0:11:41:37	59.82	92	1.7				
0:11:43:25	58.84	92	3.5				
0:11:47:04	63.46	92	7.1				
0:11:52:47	69.35	92	12.8				
0:11:57:14	74.26	92	17.3				
0:12:03:06	75.25	92	23.1				
0:12:08:47	75.44	92	28.8				
0:12:13:02	75.05	92	33.1				
0:12:18:33	77.60	92	38.6				
0:12:22:45	73.48	92	42.8				
0:12:26:39	72.30	92	46.7				
0:12:30:23	70.24	92	50.4				
0:12:34:47	71.32	92	54.8				
0:12:38:39	76.92	92	58.7				
0:12:41:53	73.28	92	61.9				
0:12:47:17	73.67	92	67.3				
0:12:51:36	70.73	92	71.7				
0:12:55:47	70.92	92	75.8				
0:12:59:56	73.58	92	80.0				
0:13:03:49	71.71	92	83.9				
0:13:08:05	71.51	92	88.1				final flow # 2
0:13:08:15	132.51	92	.2				
0:13:08:23	228.68	92	.3				
0:13:08:32	336.15	92	.4				
0:13:08:45	444.70	92	.7				
0:13:08:57	532.62	92	.9				
0:13:09:13	621.88	92	1.1	117.76	77.09	.951500	
0:13:09:37	722.66	92	1.5	191.44	118.89	.987818	
0:13:10:08	817.38	92	2.1	228.90	138.98	.996763	
0:13:10:56	910.94	92	2.8	250.01	149.72	.998828	
0:13:12:03	995.12	92	4.0	257.01	152.92	.999839	
0:13:12:56	1056.02	92	4.8	263.04	155.87	.999204	
0:13:13:49	1113.30	92	5.7	271.15	159.77	.997722	
0:13:14:44	1167.09	92	6.6	279.53	163.73	.996053	
0:13:15:50	1228.54	92	7.8	354.11	187.78	.997291	
0:13:17:21	1299.90	92	9.3	388.04	197.49	.997415	
0:13:18:56	1359.13	92	10.8	408.58	202.43	.999044	
0:13:20:39	1410.00	92	12.6	415.61	203.60	.999855	
0:13:22:31	1448.06	92	14.4	405.79	201.75	.999476	
0:13:25:43	1494.95	92	17.6	394.13	199.43	.998765	
0:13:29:28	1536.72	92	21.4	361.09	197.43	.997592	
0:13:33:18	1560.56	92	25.2	340.44	197.25	.996295	
0:13:38:55	1578.78	92	30.8	324.61	196.97	.987890	
0:13:45:19	1592.54	92	37.2	348.76	190.57	.992544	
0:13:51:53	1603.29	92	43.8	271.92	207.61	.990685	
0:14:00:12	1610.76	92	52.1	262.78	211.11	.995558	
0:14:08:56	1616.76	92	60.9	257.60	213.67	.994811	
0:14:13:08	1619.96	92	65.1	254.96	215.47	.996739	
0:14:17:54	1628.10	92	69.8	260.01	212.02	.994363	
0:14:22:26	1636.82	92	74.4	261.56	211.41	.991277	
0:14:27:14	1641.28	92	79.2	282.86	190.13	.988530	
0:14:33:07	1643.02	92	85.0	277.66	195.16	.981537	
0:14:41:52	1643.60	92	93.8	264.54	209.35	.991913	
0:14:46:57	1646.71	92	98.9	253.39	224.26	.941938	
0:14:53:59	1649.52	92	105.9	254.47	222.94	.964266	
0:15:00:26	1652.42	92	112.3	255.66	221.45	.973063	

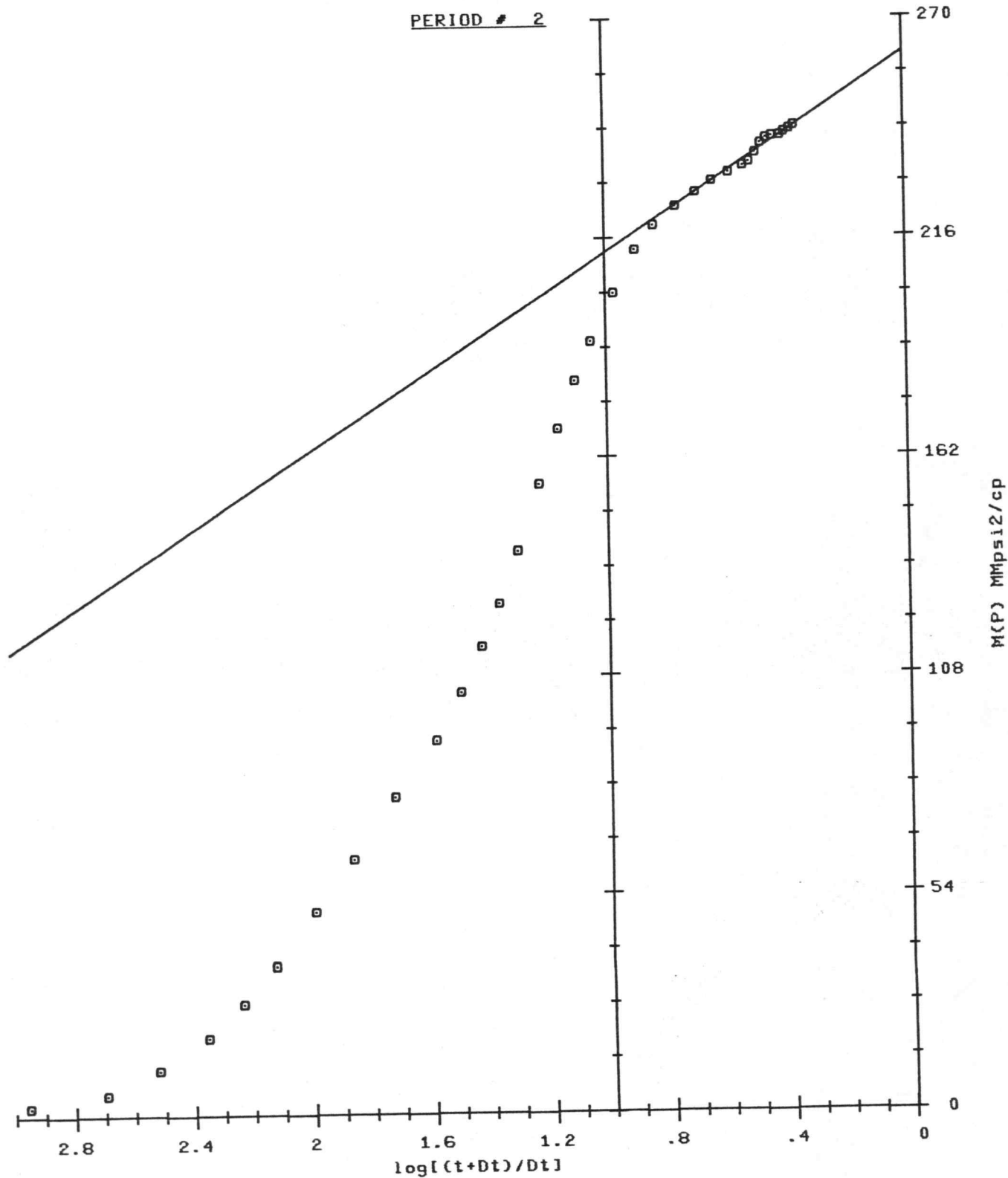
NOTICE: THIS INFORMATION IS SUBJECT TO THE LIMITATION OF LIABILITY PROVISIONS ON PAGE 1.

Time	Press.	Temp	Delta t	Ps	P10	CCc	
0:15:06:20	1654.65	92	118.3	262.01	211.16	.998913	closed in # 2

NOTICE: THIS INFORMATION IS SUBJECT TO THE LIMITATION OF LIABILITY PROVISIONS ON PAGE 1.

HORNER PLOT  
 $P_2 = 1717.39$   
 $P_{10} = 1534.25$   
 $M(P_2) = 261.32$   
 $M(P_{10}) = 212.39$

PERIOD # 2



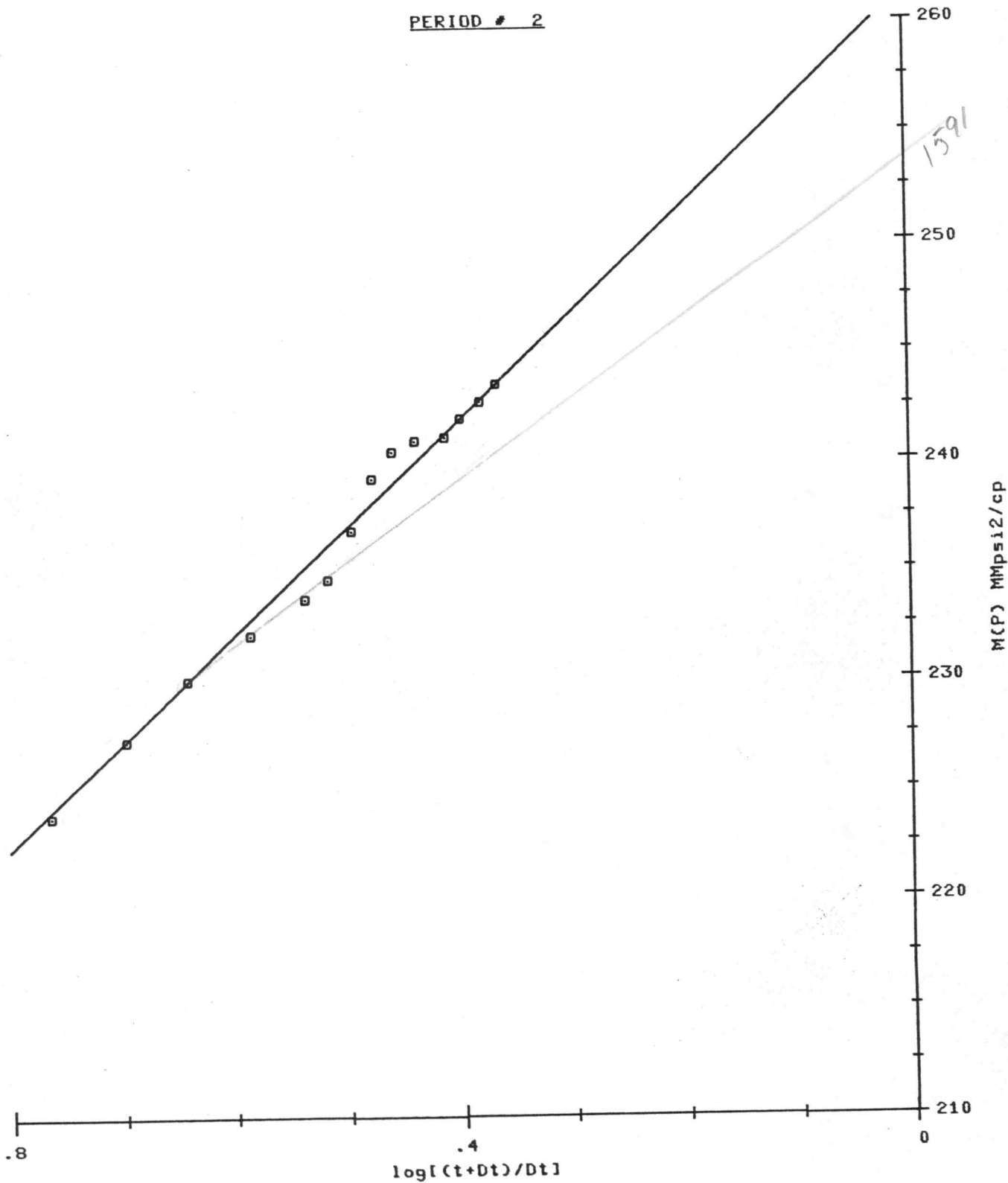
Lease Name ALTON UNRUH  
Lease Owner M. L. BROWN  
Gauge Sn. 007500

Well No. 3  
Date 3-28-82

Test no. v  
Ticket no. 319302

HORNER PLOT  
 $P_2 = 1717.39$   
 $P_{10} = 1534.25$   
 $M(P_2) = 261.32$   
 $M(P_{10}) = 212.39$

PERIOD # 2



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Lease Name ALTON UNRUH

Well No. 3

Test no. 3

Lease Owner M. L. BROWN

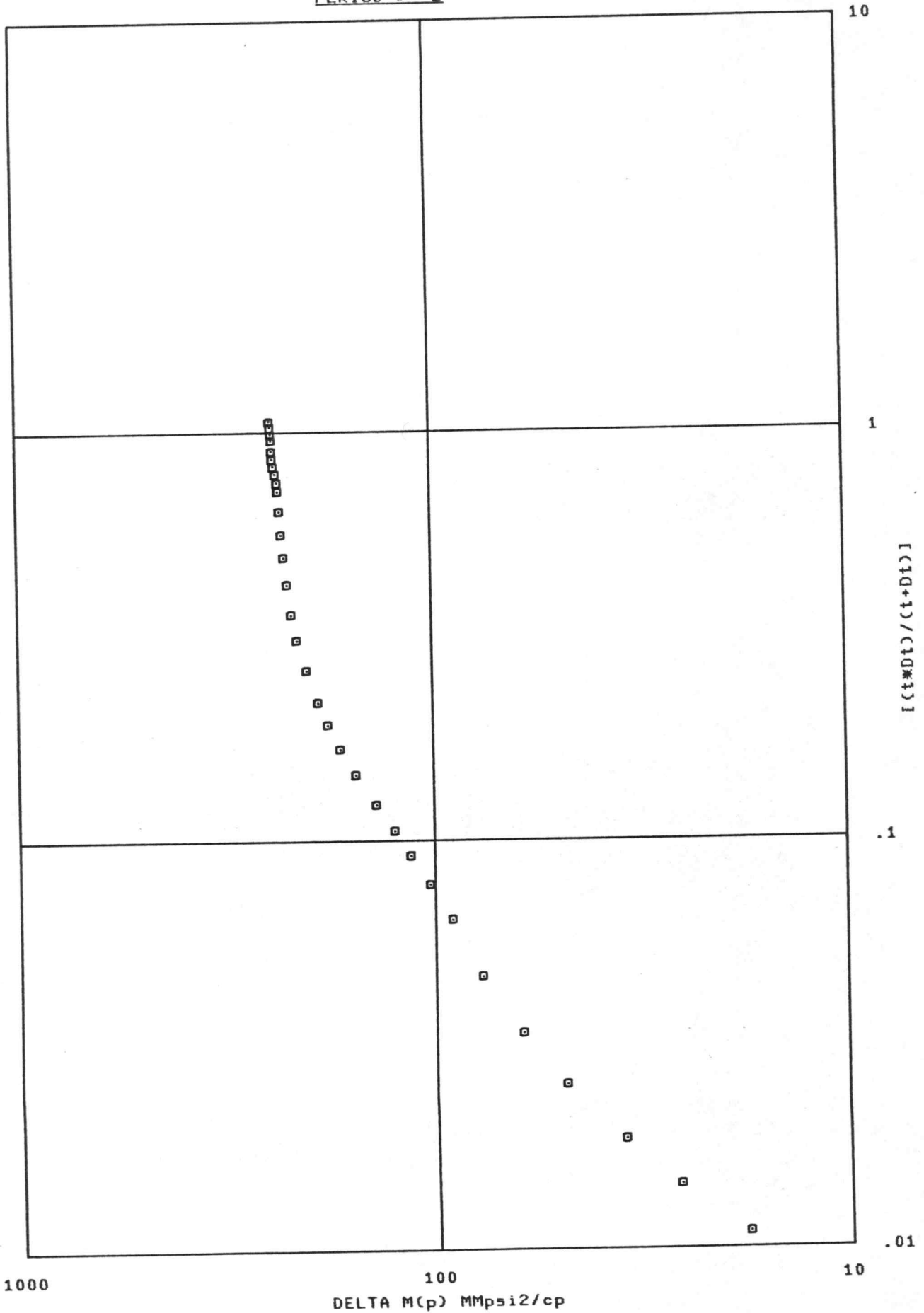
Date 3-28-82

Ticket no. 319302

Gauge Sn. 007500

Log-Log PLOT

PERIOD # 2



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# HALLIBURTON SERVICES

Lease Name	ALTON UNRUH	Well No.	3	Test No.	3
Lease Owner	M. L. BROWN	Date	3-28-82	Ticket no.	319302
Gauge Sn.	007500				

GAS PRODUCTION  
PERIOD # 2

GAS GRAVITY	.650000		TEMPERATURE	92.000000	F
NET PAY	7.000000	ft	POROSITY	10.000000	%
RADIUS OF WELL BORE	.328125	ft	VISCOSITY	.015452	cp
GAS DEVIATION FACTOR	.791801		GAS PROPERTIES AT	1654.651163	Psig
SYS. COMPRESSIBILITY	.000712	v/v/p			

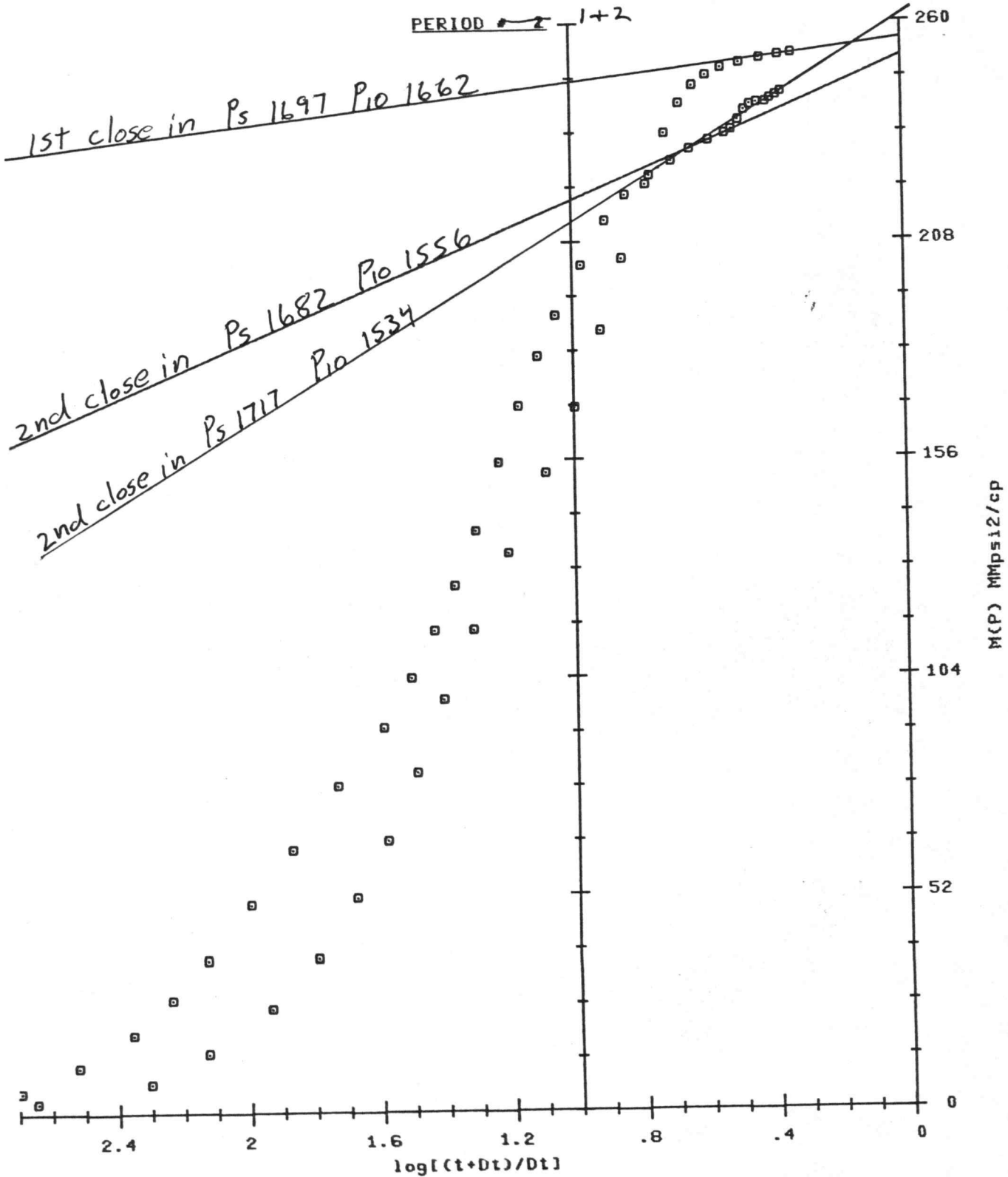
GAUGE DEPTH			5069.000000	ft
FINAL FLOW PRESSURE			71.512770	Psig
TOTAL FLOW TIME			147.757612	min
CALC. STATIC PRESS.	Ps		1717.387070	Psig
EXTRA. PRESS.	m(Ps)		261.324360	
ONE CYCLE PRESS.	m(P10)		212.392259	
PRODUCTION RATE	Q		118.000000	MCFD
TRANSMISSIBILITY	kh/u		141.019257	mf/c
FLOW CAPACITY	kh		2.179094	mdft
PERMEABILITY	k		.311299	md
SKIN FACTOR	S		1.994217	
DAMAGE RATIO	DR		1.484824	
INDICATED RATE MAX AOF1			118.600319	MCFD
INDICATED RATE MIN AOF2			118.299779	MCFD
THEO. RATE	DR*AOF1		176.100653	MCFD
THEO. RATE	DR*AOF2		175.654403	MCFD
RADIUS OF INVEST.	ri		26.708596	ft

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Gauge Sn. 007500

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Date 3-28-82
















Test No. 3  
Ticket no. 319302

HORNER PLOT  
 $P_D = 1682.72$   
 $P_{10} = 1660.80$   
 $M(P_D) = 253.02$   
 $M(P_{10}) = 246.97$





TICKET NUMBER 319302

	O.D.	I.D.	LENGTH	DEPTH
 DRILL PIPE_____	4.500_____	3.826_____	4654.0	
 FLEX WEIGHT_____	4.500_____	2.764_____	180.0	
 REVERSING SUB - HOLLOW PIN IMPACT_____	6.000_____	2.250_____	1.0	4834.0
 FLEX WEIGHT_____	4.500_____	2.764_____	180.0	
 CROSSOVER_____	6.000_____	2.250_____	1.0	
 DUAL C.I.P. VALVE_____	5.000_____	.870_____	6.0	
 HYDROSPRING TESTER_____	5.000_____	.750_____	5.0	5026.0
 RUNNING CASE - A.P._____	5.000_____	3.060_____	4.0	5028.0
 JAR_____	5.000_____	1.530_____	5.0	
 V.R. SAFETY JOINT_____	5.000_____	1.000_____	3.0	
 PACKER - OPEN HOLE_____	6.750_____	1.530_____	6.0	5043.0
 PACKER - OPEN HOLE_____	6.750_____	1.530_____	6.0	5049.0
 ANCHOR - FLUSH JOINT_____	5.000_____	2.370_____	16.0	
 RUNNING CASE - TEMPERATURE_____	5.000_____	2.440_____	1.0	5067.0
 RUNNING CASE - BLANKED OFF_____	5.000_____	2.440_____	4.0	5069.0

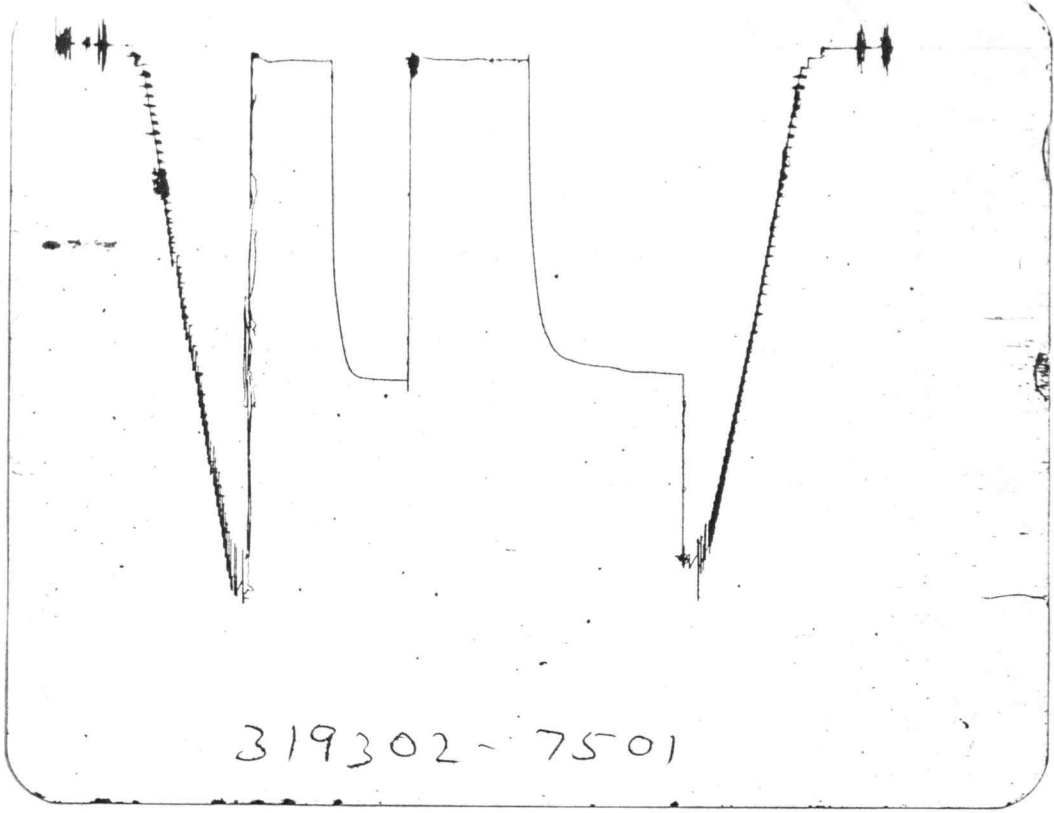
**JOB LOG**

WELL NO. 5 LEASE ALTON UNRVH TICKET NO. 071002  
 CUSTOMER THE MAURICE L BROWN Co PAGE NO. 1  
 JOB TYPE DST#3 5049-5072 DATE 3-28-82

FORM 2013 R-2

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								STAYED ON LOCATION
	07:30							PICK UP TOOL
	07:45							TOOLS MADE UP THROUGH ROTARY TABLE
	09:37							ON BOTTOM
	09:40							TOOL OPEN STAGING BLOW
	09:52	3726	2444	F		GAS RATE MCF		OPEN 2" LINE 1/2" CHOKER
	09:54							GAS TO SURFACE 14 MINUTE
	09:53	1/2	28			222		Hyd PSI 2687 TEMP
	10:00	1/2	20			177		IF 49-88
	10:05	1/2	18			166		IUIP 1669
	10:10	1/2	16			153		FF 49-69
	10:15	1/2	16			153		FUIP (1610) 1659
	10:20	1/2	15.5			150		Hyd PSI 2628
	10:25	1/2	15			147		RECOVERY
	10:30	1/2	15			147		180 FT GAS TO 0.1 CUT MUD
	10:35	1/2	15			147		
	10:40	1/2	15			147		CLOSED TOOL
	11:40							REOPEN TOOL TO 2" LINE 1/2" CHOKER
	11:50	1/2	17			159		
	12:00	1/2	16 <sup>14.5</sup>			153 <sup>15.5</sup>		
	12:05	1/2	15.5			150		
	12:10	1/2	15			147		
	12:15	1/2	14.5			144		
	12:20	1/2	14			141		
	12:25	1/2	13.5			137		
	12:30	1/2	13			134		
	12:35	1/2	12.5			131		
	12:40	1/2	12			129		START SLIGHT OIL SPRAY
	12:45	1/2	11.5			125		" " " "
	12:50	1/2	11.5			125		" " " "
	12:55	1/2	11			121		" " " "
	13:00	1/2	11			121		" " " "
	13:05	1/2	10.5			118		" " " "
	13:10	1/2	10.5			118		CLOSED TOOL " "
	15:10							OFF BOTTOM
	17:00							TOOL IN ROTARY TABLE

RETAIN



319302-7501