H A L L I B U R T O N S E R V I C E S

FORMATION TESTING SERVICE REPORT

06-OCT-86

COMPANY NAME:	NEWHALL
DRILLING CONTRACTOR:	NORTON DRILLING
TICKET NUMBER:	22307801
TEST DATE:	10-2-86
LEASE NAME:	SPEIGHT STATE
WELL NUMBER:	1
TEST NUMBER:	2
JOB TYPE:	OPEN HOLE
LEGAL LOCATION:	15 - 13S - 38E
COUNTY:	LEA
STATE:	NEW MEXICO
HALLIBURTON CAMP:	HOBBS
FIELD AREA:	BRONCO SILIRO
ELEVATION:	3819.0 FEET
NET PAY:	13.0 FEET
HOLE SIZE:	6.0 INCH(ES)
TESTED INTERVAL:	11861.0 FEET - 11890.0 FEET

NOTICE:

THESE CALCULATIONS ARE BASED UPON INFORMATION FURNISHED BY YOU AND TAKEN FROM DRILL STEM TEST PRESSURE CHARTS, AND ARE FURNISHED YOU FOR YOUR INFORMATION. IN FURNISHING SUCH CALCULATIONS AND EVALUATIONS BASED THEREON, HALLIBURTON IS MERELY EXPRESSING ITS OPINION. YOU AGREE THAT HALLIBURTON MAKES NO WARRANTY EXPRESS OR IMPLIED AS TO THE ACCURACY OF SUCH CALCULATIONS OR OPINIONS, AND THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER DUE TO NEGLIGENCE OR OTHERWISE, IN CONNECTION WITH SUCH CALCULATIONS AND OPINIONS.

TICKET NUMBER: 223078^1
TEST DATE: 10-2 5

EQUIPMENT & HOLE DATA

FORMATION TESTED:	DEVONIAN
NET PAY:	13.0 FT.
GROSS TESTED FOOTAGE:	29.0 FT.
ALL DEPTHS MEASURED FROM:	KELLY BUSHING
CASING PERFORATIONS:	
HOLE/CASING SIZE:	6.0 IN.
ELEVATION:	3819.0 FT.
TOTAL DEPTH:	11890.0 FT.
PACKER DEPTH(S):	11856.0 FT.
FINAL SURFACE CHOKE:	
BOTTOM HOLE CHOKE:	0.620 IN.
MUD WEIGHT:	8.90 LB/GAL
MUD VISCOSITY:	
ESTIMATED HOLE TEMPERATURE:	0.0 F
ACTUAL HOLE TEMPERATURE:	176.0 F @ 11889.0 FT.

HYDROCARBON PROPERTIES

OIL GRAVITY:	40.0 API @ 60.0 F
GAS/OIL RATIO:	4.0 CU.FT./BBL
GAS GRAVITY:	

SAMPLER DATA

SURFACE PRESSURE:	250.0 PSIG
GAS VOLUME:	0.05 CU.FT.
OIL VOLUME:	1850.0 CC
WATER VOLUME:	
MUD VOLUME:	
TOTAL LIQUID VOLUME:	1850.0 CC

TESTER(S):

ED HAM

WITNESS(ES):

J. E. BRUSEHAN

TICKET NUMBER: 22307801
TEST DATE: 10-2 5

FLUID PROPERTIES FOR RECOVERED MUD AND WATER

SOURCE	RESISTIVITY	CHLORIDES
MUD PIT	0.000 @ 0.0 F	1474.0 PPM
WATER BLANKET	0.000 @ 82.0 F	500.0 PPM
TOP OF TOOL	0.000 @ 80.0 F	250.0 PPM
	0.000 @ 0.0 F	0.0 PPM
	0.000 @ 0.0 F	0.0 PPM
	0.000 @ 0.0 F	0.0 PPM

CUSHION DATA

TYPE	AMOUNT	WEIGHT
FRESH WATER(FT)	2500.0	8.33
	0.0	0.00

RECOVERED (MEASURED FROM TESTER VALVE):

62 BBLS OF OIL REVERSED OUT(5640 FEET)
2500 FEET OF WATER BLANKET
30 FEET OF OIL CUT MUD

REMARKS:

SAMPLER API GRAVITY 43.2 @ 60 DEG. F.
TOP OF RECOVERY API 40.3 @ 60 DEG. F.

TICKET NUMBER: 22307801
TEST DATE: 10-2-

TYPE AND SIZE MEASURING DEVICE: POSITIVE CHOKE

TIME	CHOKE SIZE	SURFACE PRESSURE (PSI)	GAS RATE (MCF)	LIQUID RATE (BPD)	REMARKS
10-2-86					
1710					ON LOCATION
1755					PICK UP TOOLS AND MAKE UP SAME.
2000					TRIP IN HOLE
10-3-86					
0058	BH				OPEN TOOL
0103	BH				4" BLOW IN BUBBLE BUCKET
0108	BH	1/8			8" BLOW
0114	BH	1/4			12" BLOW
0114	BH				CLOSE TOOL
0214	BH	0			OPEN TOOL - WEAK BLOW, 0" BLOW IN THE BUBBLE BUCKET.
0219	BH	1/4			12" BLOW IN BUBBLE BUCKET
0224	BH	3/4			12" BLOW
0229		1.1			
0244		2.0			
0259	BH	2.7			
0314	BH	3.6			
0329	BH	4.2			
0344	BH	4.8			
0359	BH	5.1			
0414	BH	5.3			INCREASE THE SAME
0414					CLOSE TOOL
0815					OPEN BYPASS
0830					PULL OUT OF HOLE. AFTER CLOSING TOOL AND OPENING MANIFOLD, HAD FIT GAS TO SURFACE.(APPROX. 0445)
1000					REVERSED OUT
1400					CONTINUED OUT OF HOLE

HALLIBURTON SERVICES

TICKET NUMBER: 22307801
TEST DATE: 10-2-86

GAUGE NUMBER: 8041
GAUGE DEPTH: 11837.8

BLANKED OFF: NO
CLOCK HOUR: 24

DESCRIPTION	PRESSURE REPORTED	PRESSURE CALCULATED	TIME REPORTED	TIME CALCULATED	TYPE
A INITIAL HYDROSTATIC	0	5527.1			
B INITIAL FIRST FLOW	0	911.9			
C FINAL FIRST FLOW	0	1002.5	16.0	14.0	F
C INITIAL FIRST CLOSED-IN	0	1002.5			
D FINAL FIRST CLOSED-IN	0	4298.8	60.0	56.2	C
E INITIAL SECOND FLOW	0	1003.5			
F FINAL SECOND FLOW	0	2918.4	120.0	119.1	F
F INITIAL SECOND CLOSED-IN	0	2918.4			
G FINAL SECOND CLOSED-IN	0	4315.4	241.0	241.9	C
H FINAL HYDROSTATIC	0	5507.5			

TICKET NUMBER: 223078[illegible]
TEST DATE: 10-2- [illegible]

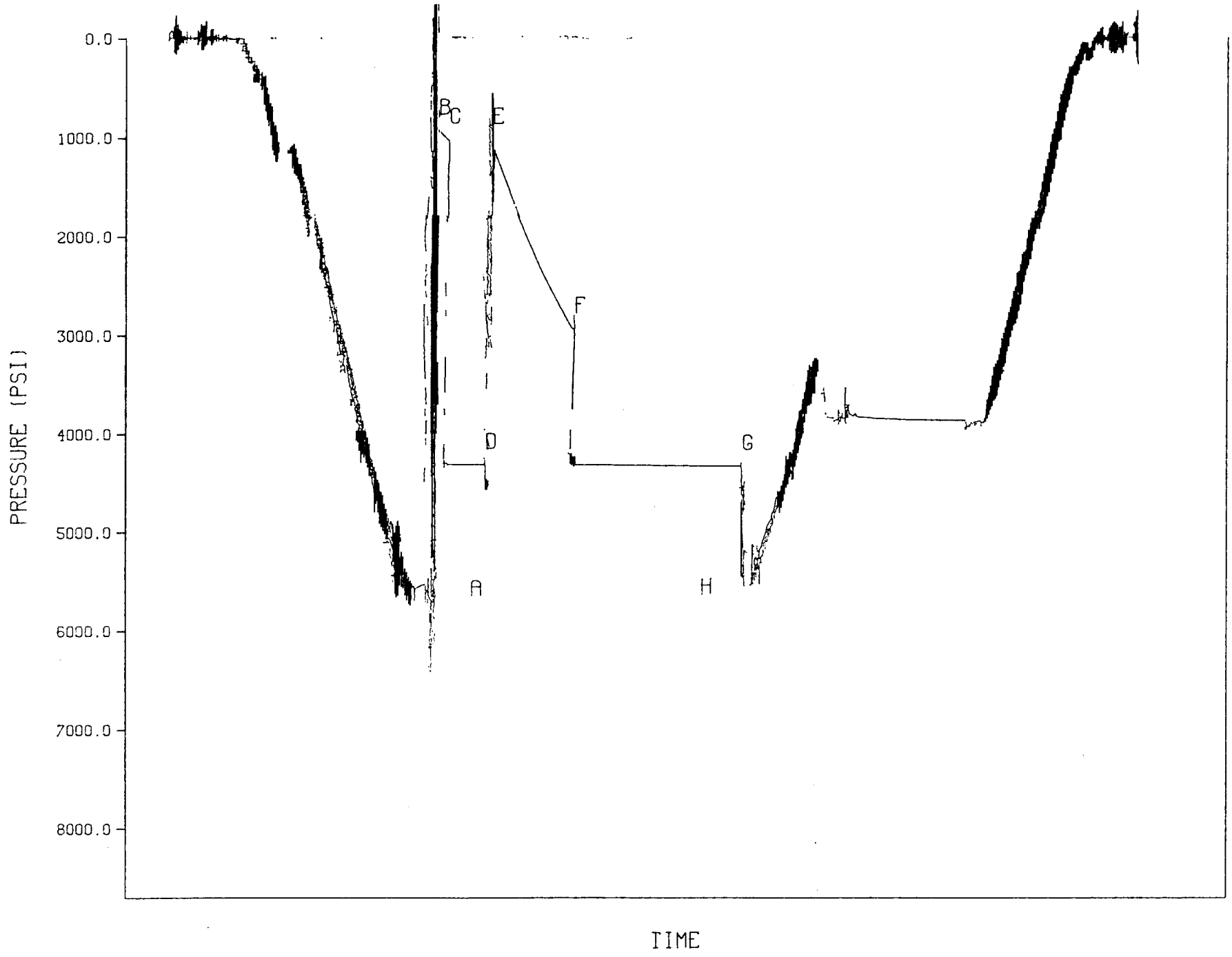
SUMMARY OF RESERVOIR PARAMETERS
HORNER METHOD FOR LIQUID WELLS

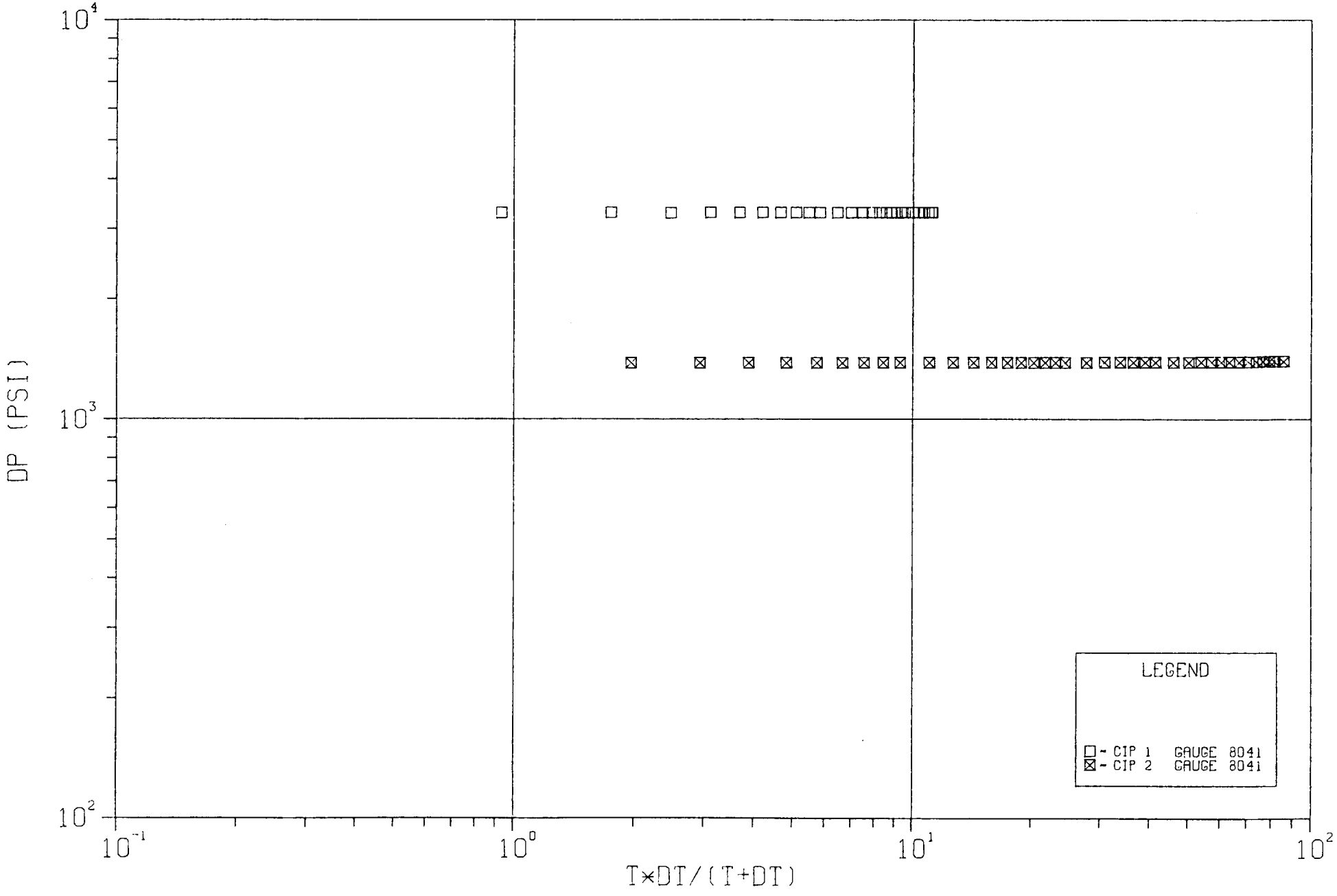
OIL GRAVITY:	40.0 API@ 60.0 F
WATER SALINITY:	0.0 % SALT
GAS GRAVITY:	0.700
FLUID GRADIENT:	0.3575 PSI/FT.
GAS/OIL RATIO:	4.0 SCF/STB
FLUID PROPERTIES AT:	4356.7 PSIG
TEMPERATURE:	176.000 F
VISCOSITY:	8.850 CP
NET PAY:	13.0 FT.
FORMATION VOLUME FACTOR:	1.061 RVOL/SVOL
POROSITY:	10.0 %
SYSTEM COMPRESSIBILITY:	0.00000549 VOL/VOL/PSI
PIPE CAPACITY FACTOR(S):	0.00492 BBL/FT.
	0.00000 BBL/FT.
	0.01084 BBL/FT.
	0.00000 BBL/FT.

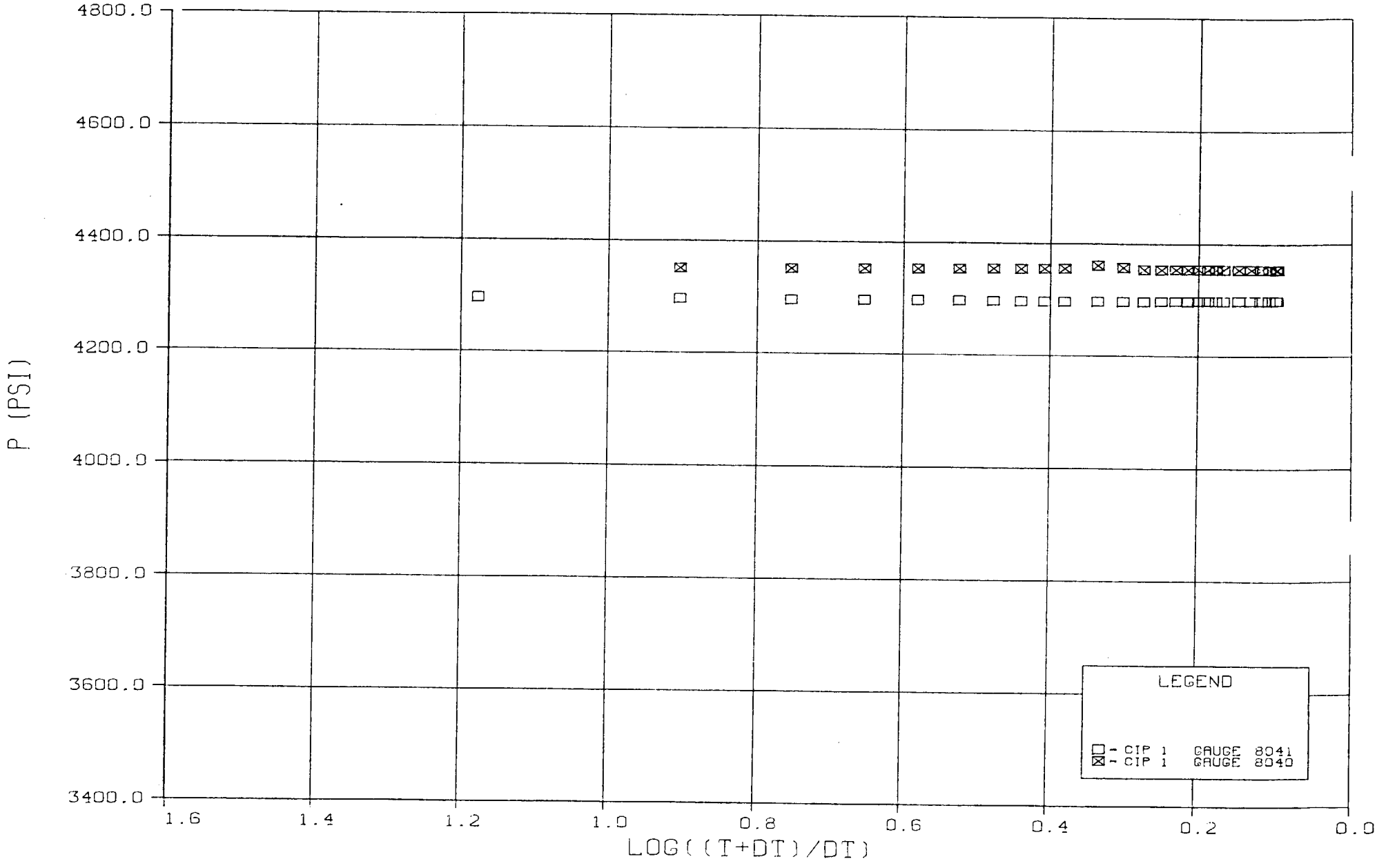
	GAUGE NUMBER	8041	8041	
	GAUGE DEPTH	11837.8	11837.8	
	FLOW AND CIP PERIOD	1	2	
PF	FINAL FLOW PRESSURE	1002.5	2918.4	PSIG
T	TOTAL FLOW TIME	14.0	133.1	MIN
P*	EXTRAPOLATED PRESSURE	0.0	4314.7	PSIG
	ONE CYCLE PRESSURE	0.0	4305.9	PSIG
Q	PRODUCTION RATE	0.0	0.0	BPD
KH/U	TRANSMISSIBILITY	0.00	0.00	MD-FT./CP
KH	FLOW CAPACITY	0.00	0.00	MD-FT.
K	PERMEABILITY	0.000	0.000	MD
S	SKIN FACTOR	0.000	0.000	
DR	DAMAGE RATIO	0.00	0.00	
Q1	POTENTIAL RATE	0.0	0.0	BPD
RI	INVESTIGATION RADIUS	0.0	0.0	FT.

REMARKS:
UNABLE TO PERFORM REQUESTED CALCULATION SERVICES DUE TO LACK OF HORNER TRANSITION DATA IN THE CLOSED IN PERIODS. CHARTS DO HOWEVER INDICATE THE PRESENTS OF DAMAGE BECAUSE OF THE SHARP CORNER IN THE CLOSED IN PERIODS.

TICKET NUMBER: 22307801
GAUGE NUMBER: 8041




DP (PSI)
10^4
10^3
10^2
10^{-1}
10^0
10^1
10^2
T*DT/(T+DT)
LEGEND
□ - CIP 1 GAUGE 8041
⊠ - CIP 2 GAUGE 8041


4800.0
4600.0
4400.0
4200.0
4000.0
3800.0
3600.0
3400.0
P (PSI)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
LOG((T+DT)/DT)
LEGEND
- CIP 1 GAUGE 8041
- CIP 1 GAUGE 8040

HALLIBURTON SERVICES

TICKET NUMBER: 22307801
TEST DATE: 10-2-86

CLOCK NUMBER: 28339
HOUR: 24

GAUGE NUMBER: 8041
GAUGE DEPTH: 11837.8

REFERENCE		TIME (MINUTES)	PRESSURE (PSI)	DP	(T*DT)/(T+DT)	LOG (T+DT)/DT
FIRST FLOW						
B	1	0.0	911.9			
	2	4.0	929.1	17.2		
	3	5.0	938.1	8.9		
	4	6.0	944.9	6.8		
	5	7.0	956.6	11.7		
	6	8.0	956.9	0.4		
	7	9.0	964.0	7.1		
	8	10.0	972.9	8.9		
	9	11.0	981.8	8.9		
	10	12.0	990.9	9.1		
	11	13.0	998.8	7.9		
C	12	14.0	1002.5	3.7		
FIRST CLOSED-IN						
C	1	0.0	1002.5			
	2	1.0	4295.5	3293.0	0.9	1.176
	3	2.0	4295.9	3293.4	1.8	0.903
	4	3.0	4295.6	3293.1	2.5	0.754
	5	4.0	4295.9	3293.5	3.1	0.653
	6	5.0	4296.4	3293.9	3.7	0.580
	7	6.0	4296.5	3294.0	4.2	0.523
	8	7.0	4296.3	3293.8	4.7	0.477
	9	8.0	4296.1	3293.7	5.1	0.440
	10	9.0	4296.1	3293.7	5.5	0.408
	11	10.0	4296.3	3293.8	5.8	0.380
	12	12.0	4296.6	3294.1	6.5	0.336
	13	14.0	4296.9	3294.5	7.0	0.301
	14	16.0	4296.8	3294.4	7.5	0.273
	15	18.0	4297.1	3294.7	7.9	0.250
	16	20.0	4297.5	3295.0	8.2	0.231
	17	22.0	4297.3	3294.9	8.6	0.214
	18	24.0	4297.9	3295.5	8.8	0.200
	19	26.0	4297.7	3295.2	9.1	0.187
	20	28.0	4297.7	3295.2	9.3	0.176
	21	30.0	4297.8	3295.3	9.6	0.166
	22	35.0	4298.2	3295.7	10.0	0.146
	23	40.0	4298.2	3295.8	10.4	0.130
	24	45.0	4298.4	3295.9	10.7	0.118
	25	50.0	4298.7	3296.2	10.9	0.107

HALLIBURTON SERVICES

TICKET NUMBER: 22307801
TEST DATE: 10-2-86

CLOCK NUMBER: 28339
HOUR: 24

GAUGE NUMBER: 8041
GAUGE DEPTH: 11837.8

REFERENCE		TIME (MINUTES)	PRESSURE (PSI)	DP	(T*DT)/(T+DT)	LOG (T+DT)/DT
	26	55.0	4298.8	3296.3	11.2	0.099
D	27	56.2	4298.8	3296.3	11.2	0.097
SECOND FLOW						
E	1	0.0	1003.5			
	2	6.0	1157.6	154.1		
	3	12.0	1270.6	113.0		
	4	18.0	1385.9	115.3		
	5	24.0	1503.0	117.0		
	6	30.0	1608.7	105.8		
	7	36.0	1720.2	111.4		
	8	42.0	1845.1	125.0		
	9	48.0	1947.9	102.7		
	10	54.0	2048.6	100.7		
	11	60.0	2141.5	92.9		
	12	66.0	2234.8	93.3		
	13	72.0	2325.8	91.0		
	14	78.0	2411.3	85.5		
	15	84.0	2496.2	84.9		
	16	90.0	2576.0	79.8		
	17	96.0	2656.0	80.1		
	18	102.0	2734.2	78.1		
	19	108.0	2809.6	75.4		
	20	114.0	2880.0	70.4		
F	21	119.1	2918.4	38.4		
SECOND CLOSED-IN						
F	1	0.0	2918.4			
	2	1.0	2919.2	0.8	1.0	2.127
	3	2.0	4301.7	1383.3	2.0	1.830
	4	3.0	4301.8	1383.5	2.9	1.657
	5	4.0	4302.0	1383.6	3.9	1.535
	6	5.0	4302.0	1383.6	4.8	1.441
	7	6.0	4302.0	1383.6	5.7	1.365
	8	7.0	4302.2	1383.8	6.6	1.301
	9	8.0	4302.3	1384.0	7.5	1.246
	10	9.0	4302.5	1384.1	8.4	1.198
	11	10.0	4302.6	1384.2	9.3	1.156
	12	12.0	4302.6	1384.2	11.0	1.082
	13	14.0	4302.6	1384.2	12.7	1.021
	14	16.0	4302.6	1384.2	14.3	0.969
	15	18.0	4303.2	1384.8	15.9	0.924

HALLIBURTON SERVICES

TICKET NUMBER: 22307801
TEST DATE: 10-2-86

CLOCK NUMBER: 28339
HOUR: 24

GAUGE NUMBER: 8041
GAUGE DEPTH: 11837.8

REFERENCE	TIME (MINUTES)	PRESSURE (PSI)	DP	(T*DT) / (T+DT)	LOG (T+DT) / DT
16	20.0	4303.5	1385.1	17.4	0.884
17	22.0	4303.2	1384.9	18.9	0.848
18	24.0	4303.7	1385.3	20.3	0.816
19	26.0	4304.4	1386.0	21.8	0.787
20	28.0	4304.7	1386.3	23.1	0.760
21	30.0	4304.7	1386.3	24.5	0.735
22	35.0	4304.7	1386.3	27.7	0.681
23	40.0	4305.3	1386.9	30.8	0.636
24	45.0	4305.8	1387.4	33.6	0.597
25	50.0	4305.8	1387.4	36.3	0.564
26	55.0	4305.6	1387.2	38.9	0.534
27	60.0	4306.2	1387.8	41.4	0.508
28	70.0	4307.3	1388.9	45.9	0.463
29	80.0	4307.3	1388.9	50.0	0.425
30	90.0	4307.7	1389.3	53.7	0.394
31	100.0	4308.5	1390.1	57.1	0.367
32	110.0	4309.1	1390.7	60.2	0.344
33	120.0	4309.6	1391.2	63.1	0.324
34	135.0	4310.2	1391.8	67.0	0.298
35	150.0	4310.9	1392.5	70.5	0.276
36	165.0	4311.8	1393.4	73.7	0.257
37	180.0	4313.4	1395.0	76.5	0.240
38	195.0	4313.4	1395.1	79.1	0.226
39	210.0	4314.5	1396.1	81.5	0.213
40	240.0	4315.1	1396.7	85.6	0.192
G 41	241.9	4315.4	1397.0	85.9	0.190

HALLIBURTON SERVICES

TICKET NUMBER: 22307801
TEST DATE: 10-2-86

GAUGE NUMBER: 8040
GAUGE DEPTH: 11887.0

BLANKED OFF: YES
CLOCK HOUR: 24

DESCRIPTION	PRESSURE REPORTED	PRESSURE CALCULATED	TIME REPORTED	TIME CALCULATED	TYPE
A INITIAL HYDROSTATIC	0	5594.4			
B INITIAL FIRST FLOW	0	968.0			
C FINAL FIRST FLOW	0	1067.8	16.0	14.0	F
C INITIAL FIRST CLOSED-IN	0	1067.8			
D FINAL FIRST CLOSED-IN	0	4354.2	60.0	56.2	C
E INITIAL SECOND FLOW	0	1070.1			
F FINAL SECOND FLOW	0	2978.4	120.0	119.1	F
F INITIAL SECOND CLOSED-IN	0	2978.4			
G FINAL SECOND CLOSED-IN	0	4351.9	241.0	241.9	C
H FINAL HYDROSTATIC	0	5580.9			

TICKET NUMBER: 22307901
TEST DATE: 10-1 .6

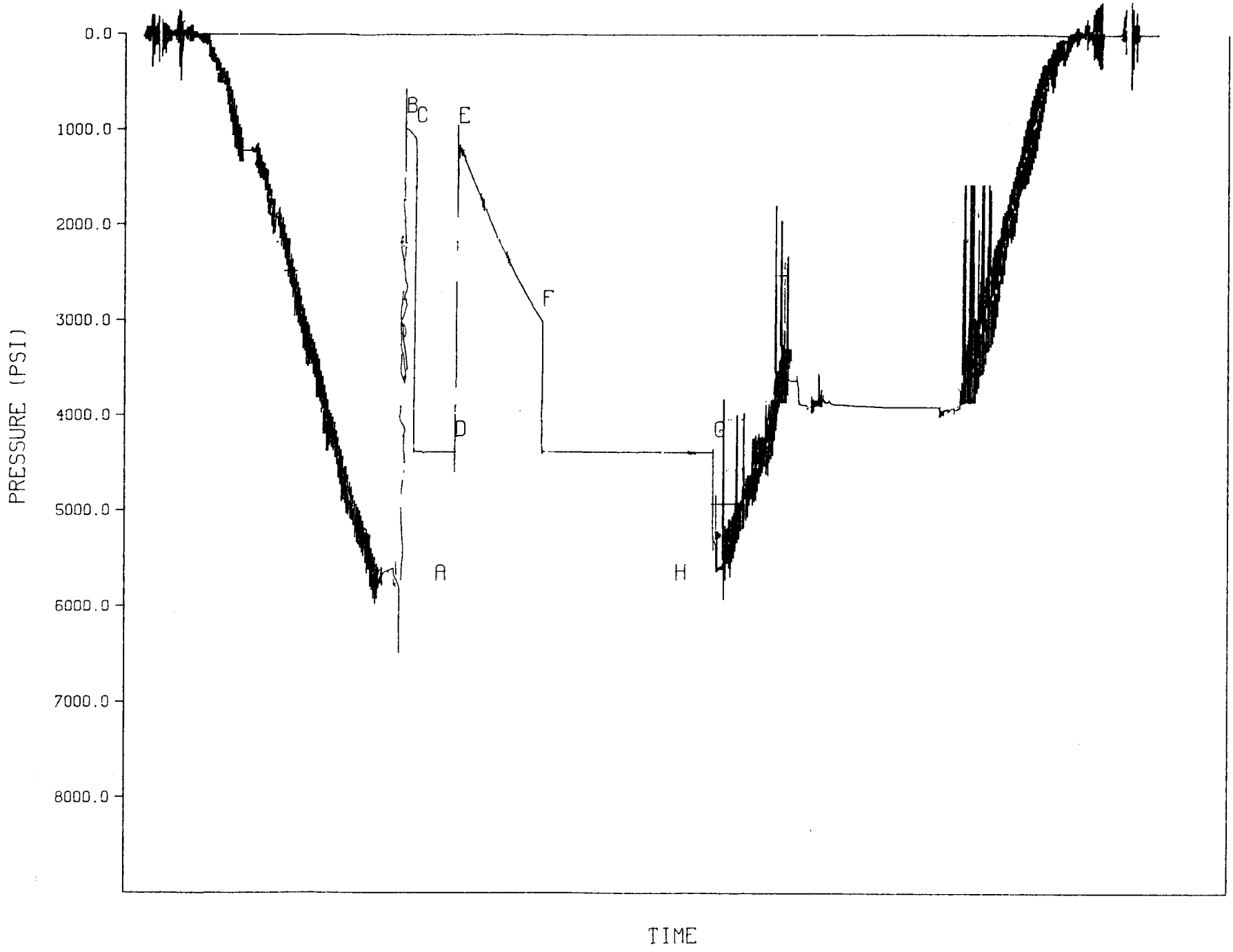
SUMMARY OF RESERVOIR PARAMETERS
HORNER METHOD FOR LIQUID WELLS

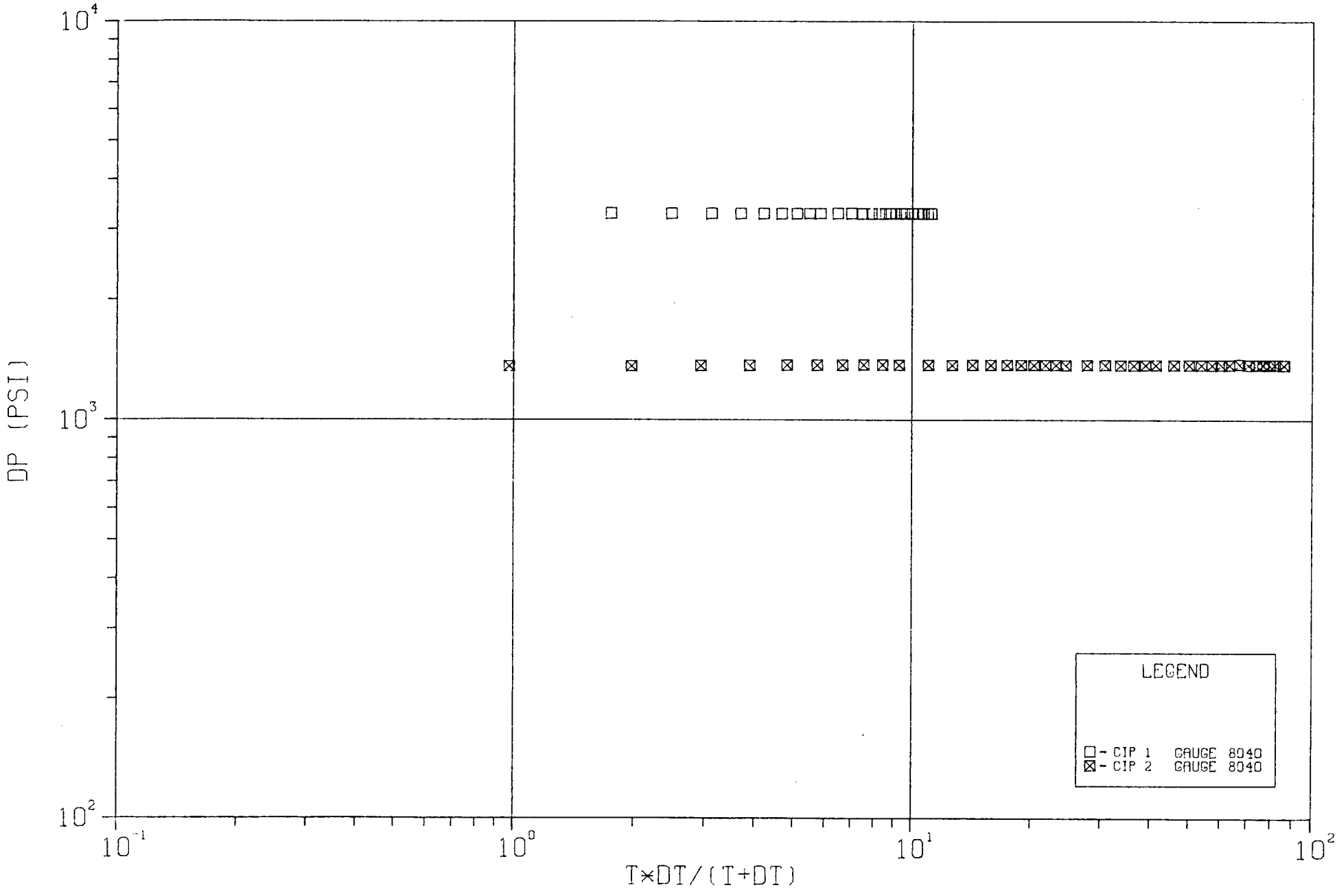
OIL GRAVITY:	40.0 API@ 60.0 F
WATER SALINITY:	0.0 % SALT
GAS GRAVITY:	0.700
FLUID GRADIENT:	0.3575 PSI/FT.
GAS/OIL RATIO:	4.0 SCF/STB
FLUID PROPERTIES AT:	4356.7 PSIG
TEMPERATURE:	176.000 F
VISCOSITY:	8.850 CP
NET PAY:	13.0 FT.
FORMATION VOLUME FACTOR:	1.061 RVOL/SVOL
POROSITY:	10.0 %
SYSTEM COMPRESSIBILITY:	0.00000549 VOL/VOL/PSI
PIPE CAPACITY FACTOR(S):	0.00492 BBL/FT.
	0.00000 BBL/FT.
	0.01084 BBL/FT.
	0.00000 BBL/FT.

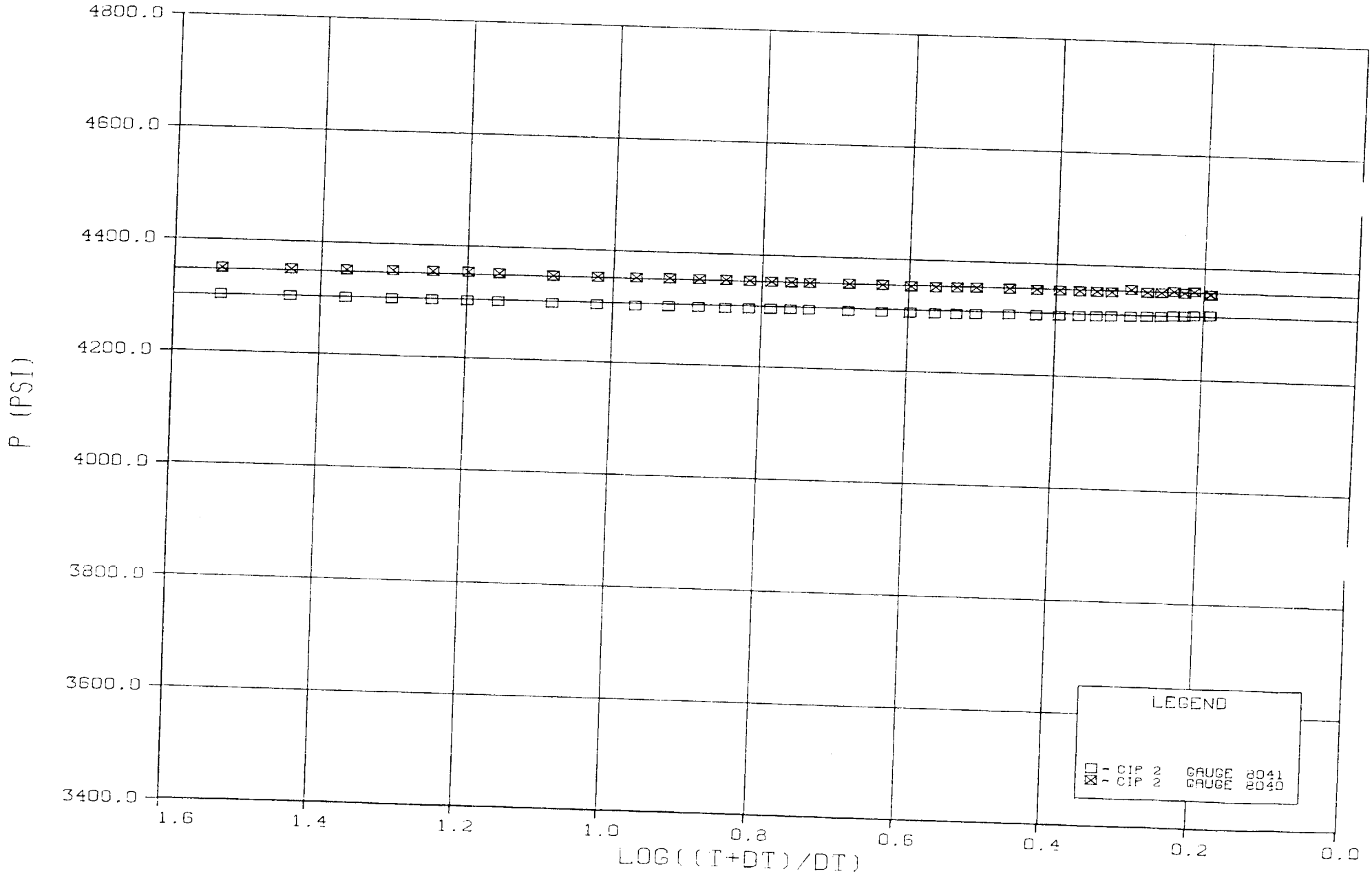
	GAUGE NUMBER	8040	8040	
	GAUGE DEPTH	11887.0	11887.0	
	FLOW AND CIP PERIOD	1	2	
PF	FINAL FLOW PRESSURE	1067.8	2978.4	PSIG
T	TOTAL FLOW TIME	14.0	133.1	MIN
P*	EXTRAPOLATED PRESSURE	0.0	4356.7	PSIG
	ONE CYCLE PRESSURE	0.0	4349.4	PSIG
Q	PRODUCTION RATE	0.0	0.0	BPD
KH/U	TRANSMISSIBILITY	0.00	0.00	MD-FT./CP
KH	FLOW CAPACITY	0.00	0.00	MD-FT.
K	PERMEABILITY	0.000	0.000	MD
S	SKIN FACTOR	0.000	0.000	
DR	DAMAGE RATIO	0.00	0.00	
Q1	POTENTIAL RATE	0.0	0.0	BPD
RI	INVESTIGATION RADIUS	0.0	0.0	FT.

REMARKS:
UNABLE TO PERFORM REQUESTED CALCULATION SERVICES DUE TO LACK OF HORNER TRANSITION DATA IN THE CLOSED IN PERIODS. CHARTS DO HOWEVER INDICATE THE PRESENTS OF DAMAGE BECAUSE OF THE SHARP CORNER IN THE CLOSED IN PERIODS.

TICKET NUMBER: 22307801
GAUGE NUMBER: 8040




DP (PSI)
10^4
10^3
10^2
10^{-1}
10^0
10^1
10^2
T*DT/(T+DT)
LEGEND
□ - CIP 1 GAUGE 8040
⊠ - CIP 2 GAUGE 8040


4800.0
4600.0
4400.0
4200.0
4000.0
3800.0
3600.0
3400.0
P (PSI)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
LOG((T+DT)/DT)
LEGEND
- CIP 2 GAUGE 8041
- CIP 2 GAUGE 8040

HALLIBURTON SERVICES

TICKET NUMBER: 22307801
TEST DATE: 10-2-86

CLOCK NUMBER: 6115
HOUR: 24

GAUGE NUMBER: 8040
GAUGE DEPTH: 11887.0

REFERENCE		TIME (MINUTES)	PRESSURE (PSI)	DP	(T*DT) / (T+DT)	LOG (T+DT) / DT
FIRST FLOW						
B	1	0.0	968.0			
	2	1.0	970.7	2.7		
	3	2.0	974.4	3.7		
	4	3.0	979.9	5.6		
	5	4.0	985.5	5.6		
	6	5.0	991.6	6.1		
	7	6.0	997.8	6.2		
	8	7.0	1005.3	7.5		
	9	8.0	1014.5	9.3		
	10	9.0	1020.6	6.0		
	11	10.0	1029.9	9.3		
	12	11.0	1039.2	9.3		
	13	12.0	1048.6	9.3		
	14	13.0	1057.9	9.3		
C	15	14.0	1067.8	9.9		
FIRST CLOSED-IN						
C	1	0.0	1067.8			
	2	1.0	1112.1	44.4	0.9	1.176
	3	2.0	4350.3	3282.5	1.8	0.903
	4	3.0	4351.1	3283.3	2.5	0.754
	5	4.0	4351.9	3284.1	3.1	0.653
	6	5.0	4352.7	3284.9	3.7	0.580
	7	6.0	4353.5	3285.7	4.2	0.523
	8	7.0	4353.8	3286.0	4.7	0.477
	9	8.0	4354.0	3286.3	5.1	0.440
	10	9.0	4354.3	3286.5	5.5	0.408
	11	10.0	4355.1	3287.3	5.8	0.380
	12	12.0	4360.7	3292.9	6.5	0.336
	13	14.0	4357.2	3289.4	7.0	0.301
	14	16.0	4354.0	3286.2	7.5	0.273
	15	18.0	4354.1	3286.3	7.9	0.250
	16	20.0	4354.1	3286.3	8.2	0.231
	17	22.0	4354.2	3286.4	8.6	0.214
	18	24.0	4354.3	3286.5	8.8	0.200
	19	26.0	4354.4	3286.6	9.1	0.187
	20	28.0	4354.4	3286.7	9.3	0.176
	21	30.0	4354.5	3286.7	9.6	0.166
	22	35.0	4354.4	3286.6	10.0	0.146

HALLIBURTON SERVICES

TICKET NUMBER: 22307801
TEST DATE: 10-2-86

CLOCK NUMBER: 6115
HOUR: 24

GAUGE NUMBER: 8040
GAUGE DEPTH: 11887.0

REFERENCE		TIME (MINUTES)	PRESSURE (PSI)	DP	(T*DT) / (T+DT)	LOG (T+DT) / DT
	23	40.0	4354.3	3286.5	10.4	0.130
	24	45.0	4354.2	3286.4	10.7	0.118
	25	50.0	4354.1	3286.3	10.9	0.107
	26	55.0	4354.0	3286.2	11.2	0.099
D	27	56.2	4354.2	3286.4	11.2	0.097

SECOND FLOW

E	1	0.0	1070.1			
	2	6.0	1213.3	143.2		
	3	12.0	1323.5	110.2		
	4	18.0	1436.1	112.7		
	5	24.0	1540.8	104.6		
	6	30.0	1653.5	112.8		
	7	36.0	1757.0	103.4		
	8	42.0	1858.8	101.9		
	9	48.0	1970.6	111.7		
	10	54.0	2086.4	115.9		
	11	60.0	2173.3	86.8		
	12	66.0	2263.5	90.2		
	13	72.0	2350.8	87.3		
	14	78.0	2444.5	93.6		
	15	84.0	2531.0	86.6		
	16	90.0	2608.9	77.8		
	17	96.0	2692.5	83.6		
	18	102.0	2769.4	76.9		
	19	108.0	2850.0	80.6		
	20	114.0	2918.3	68.4		
F	21	119.1	2978.4	60.1		

SECOND CLOSED-IN

F	1	0.0	2978.4			
	2	1.0	4341.1	1362.7	1.0	2.134
	3	2.0	4343.4	1365.0	2.0	1.830
	4	3.0	4346.2	1367.8	2.9	1.657
	5	4.0	4349.0	1370.6	3.9	1.535
	6	5.0	4349.9	1371.5	4.8	1.441
	7	6.0	4350.8	1372.4	5.7	1.365
	8	7.0	4351.8	1373.4	6.7	1.301
	9	8.0	4352.7	1374.3	7.5	1.246
	10	9.0	4353.2	1374.8	8.4	1.198
	11	10.0	4351.8	1373.4	9.3	1.156
	12	12.0	4350.9	1372.5	11.0	1.082

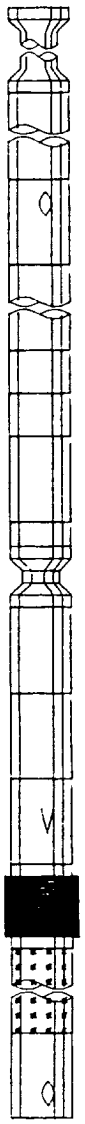
HALLIBURTON SERVICES

TICKET NUMBER: 22307801
TEST DATE: 10-2-86

CLOCK NUMBER: 6115
HOUR: 24

GAUGE NUMBER: 8040
GAUGE DEPTH: 11887.0

	REFERENCE	TIME (MINUTES)	PRESSURE (PSI)	DP	(T*DT) / (T+DT)	LOG (T+DT) / DT
	13	14.0	4351.4	1373.0	12.7	1.021
	14	16.0	4351.9	1373.5	14.3	0.969
	15	18.0	4352.5	1374.1	15.9	0.924
	16	20.0	4352.8	1374.4	17.4	0.884
	17	22.0	4352.6	1374.2	18.9	0.848
	18	24.0	4352.4	1374.0	20.3	0.816
	19	26.0	4352.2	1373.8	21.8	0.787
	20	28.0	4352.0	1373.6	23.1	0.760
	21	30.0	4351.8	1373.4	24.5	0.735
	22	35.0	4352.5	1374.1	27.7	0.681
	23	40.0	4352.5	1374.1	30.8	0.636
	24	45.0	4351.3	1372.9	33.6	0.597
	25	50.0	4351.7	1373.3	36.3	0.564
	26	55.0	4352.0	1373.6	38.9	0.534
	27	60.0	4352.4	1374.0	41.4	0.508
	28	70.0	4352.7	1374.3	45.9	0.463
	29	80.0	4352.3	1373.9	50.0	0.425
	30	90.0	4352.3	1373.9	53.7	0.394
	31	100.0	4352.3	1373.9	57.1	0.367
	32	110.0	4352.0	1373.6	60.2	0.344
	33	120.0	4352.3	1373.9	63.1	0.324
	34	135.0	4357.4	1379.0	67.0	0.298
	35	150.0	4353.2	1374.8	70.5	0.276
	36	165.0	4353.3	1374.9	73.7	0.257
	37	180.0	4356.0	1377.6	76.5	0.240
	38	195.0	4353.8	1375.4	79.1	0.226
	39	210.0	4356.8	1378.4	81.5	0.213
	40	240.0	4352.2	1373.8	85.6	0.192
G	41	241.9	4351.9	1373.5	85.9	0.190



	TOOL EQUIPMENT	O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE	4.000	3.340	10906.0	
3	DRILL COLLARS	4.750	2.250	792.0	
50	IMPACT REVERSING SUB	4.750	2.250	1.0	11698.0
3	DRILL COLLARS	4.750	2.250	124.0	
5	CROSSOVER	4.750	2.250	0.6	
5	CROSSOVER	4.625	1.310	1.0	
62	MULTIPLE CIP SAMPLER	3.875	0.880	11.0	11823.1
14	EXTENSION JOINT	3.875	0.880	5.8	
80	AP RUNNING CASE	3.813	2.880	6.3	11837.8
15	JAR	3.875	1.250	6.7	
16	VR SAFETY JOINT	3.875	1.250	3.4	
70	OPEN HOLE PACKER	5.000	0.750	5.0	11856.0
20	FLUSH JOINT ANCHOR	3.750	1.750	23.0	
81	BLANKED-OFF RUNNING CASE	3.750	0.000	4.2	11887.0
	TOTAL DEPTH				11890.0