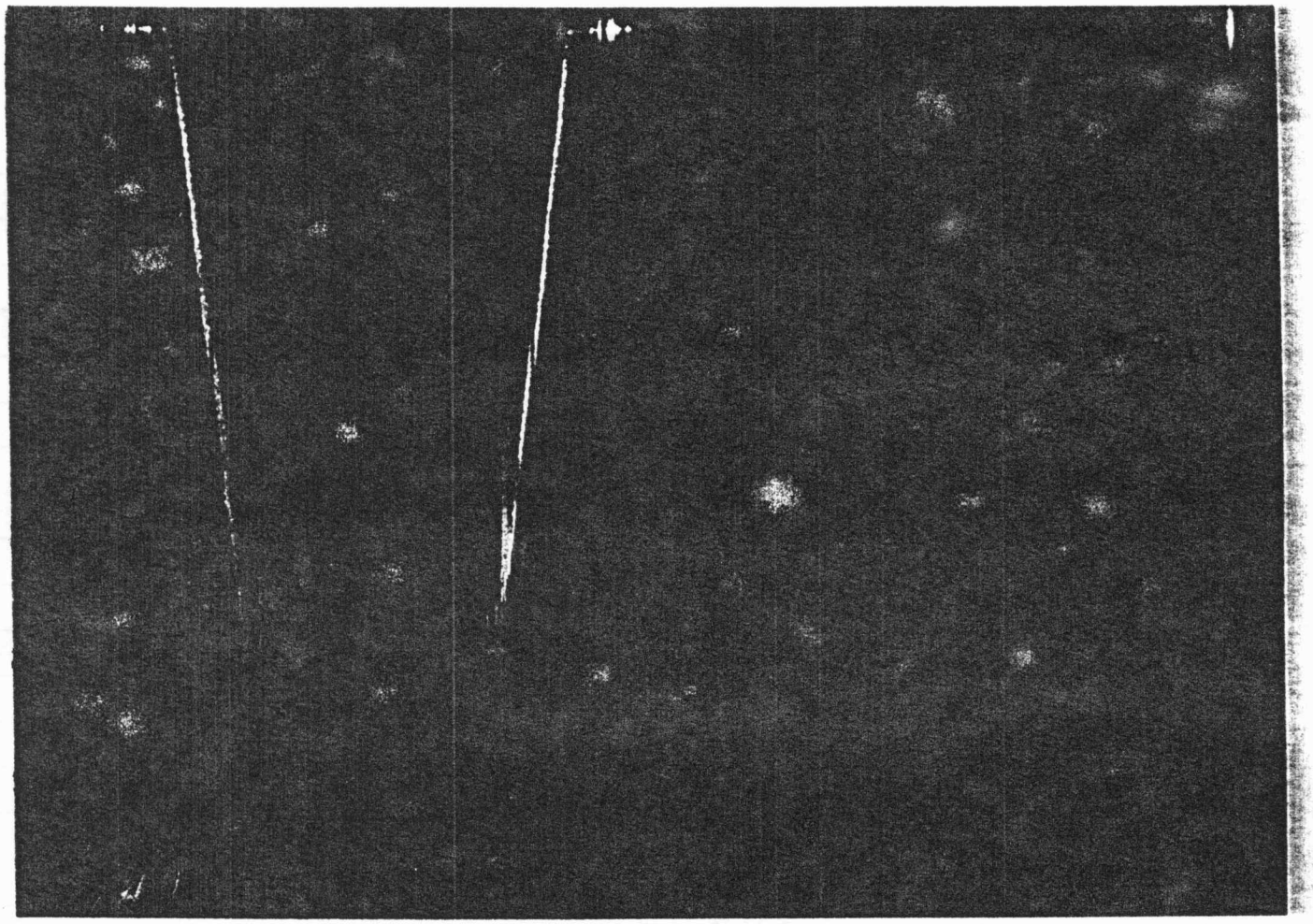
HALLIBURTON
SERVICES

TICKET NO. 09731100
28-OCT-85
HAYS

FORMATION TESTING SERVICE REPORT

OLIVERIUS Q	1	1	3694.0 - 3750.0	DONALD C. SLAWSON
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE	
25-18S-18W	S.E. OF RUSH CENTER	RUSH	KANSAS SM	

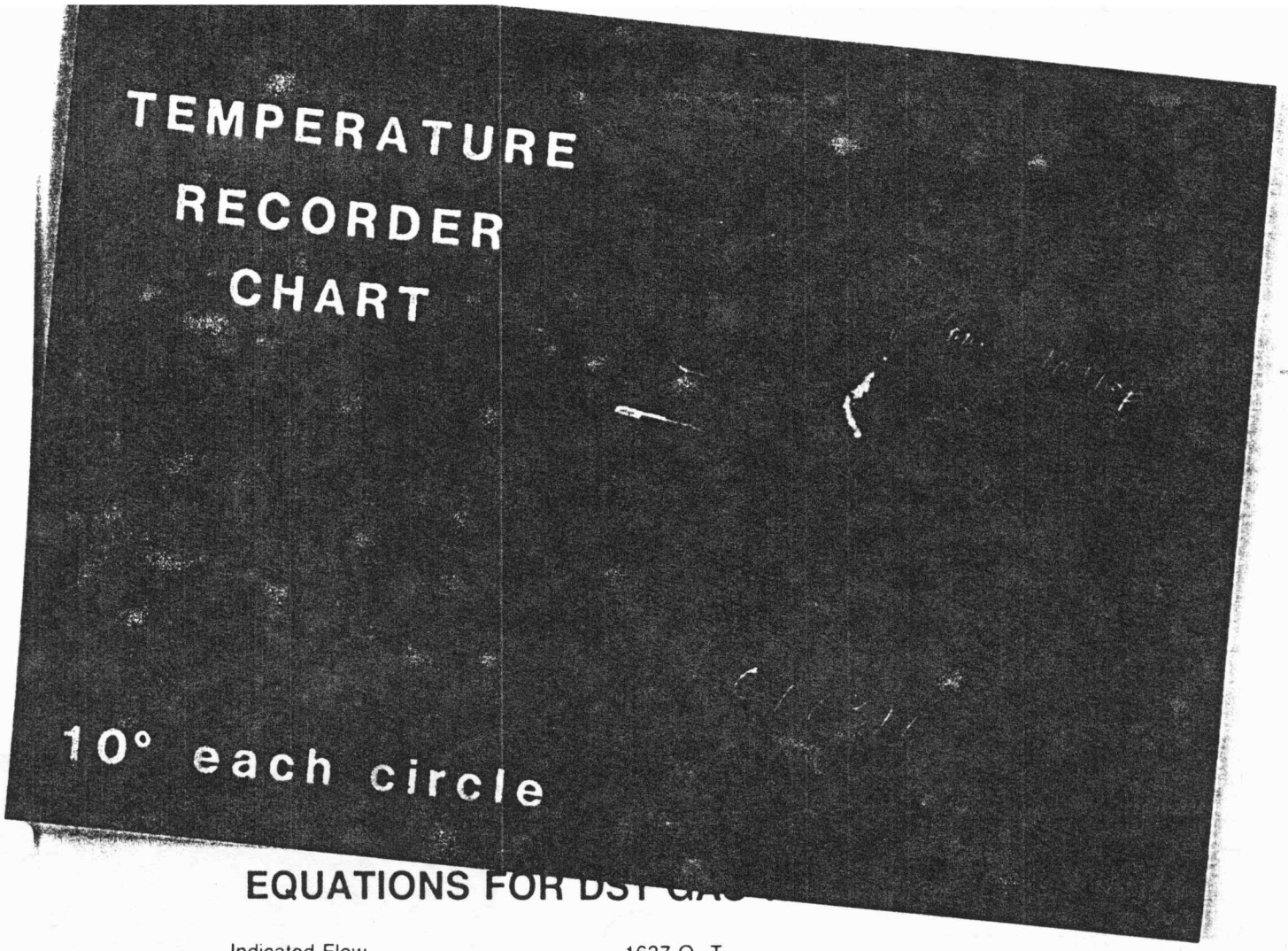


GAUGE NO: 1891 DEPTH: 3747.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1935	1961.1			
B	INITIAL FIRST FLOW	35	46.0	30.0	30.0	F
C	FINAL FIRST FLOW	35	48.8			
C	INITIAL FIRST CLOSED-IN	35	48.8	30.0	30.0	C
D	FINAL FIRST CLOSED-IN	209	221.5			
E	INITIAL SECOND FLOW	35	54.1	30.0	30.0	F
F	FINAL SECOND FLOW	35	54.1			
F	INITIAL SECOND CLOSED-IN	35	54.1	30.0	30.0	C
G	FINAL SECOND CLOSED-IN	87	86.1			
H	FINAL HYDROSTATIC	1935	1967.9			

TYPE & SIZE MEASURING DEVICE: _____ TICKET NO: 09731100

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
.0-23-85					
)030					CALLED OUT
.400					ON LOCATION WITH TEST TOOLS
					RIG CIRCULATING AT 3750'
1445					STARTED OUT OF HOLE WITH
					DRILL PIPE
					TALLY PIPE COMING OUT
10-24-85					
)415					PICKED UP AND MADE UP TEST TOOL
)445					TOOL IN TABLE
0542					TOOL ON BOTTOM
0545	1/4BH				TOOL OPENED WITH WEAK BLOW
0547					BLOW DIED
0615					TOOL CLOSED
0645					TOOL OPENED WITH WEAK BLOW
0646					BLOW DIED
0715					TOOL CLOSED
0745					TOOL OFF BOTTOM
0840					TOOL IN TABLE
0915					TOOL LAID DOWN
1030					JOB COMPLETED



EQUATIONS FOR DST GAS

Indicated Flow Capacity	$kh = \frac{1637\ Q_g\ T}{m}$	md-ft
Average Effective Permeability	$k = \frac{kh}{h}$	md
Skin Factor	$S = 1.151 \left[\frac{m(P^*) - m(P_f)}{m} - \text{LOG}\left(\frac{k(t/60)}{\phi\ \mu\ c_t r_w^2} \right) + 3.23 \right]$	—
Damage Ratio	$DR = \frac{m(P^*) - m(P_f)}{m(P^*) - m(P_f) - 0.87\ mS}$	—
Indicated Flow Rate (Maximum)	$AOF_1 = \frac{Q_g\ m(P^*)}{m(P^*) - m(P_f)}$	MCFD
Indicated Flow Rate (Minimum)	$AOF_2 = Q_g \sqrt{\frac{m(P^*)}{m(P^*) - m(P_f)}}$	MCFD
Approx. Radius of Investigation	$r_i = 0.032 \sqrt{\frac{k(t/60)}{\phi \mu c_t}}$	ft

D.S.T. Report Distribution

HALLIBURTON
SERVICES

A Division of Halliburton Company

FORM 1503R3 **DUNCAN, OKLAHOMA 73533**

Donald C. Slawson

Company Name - - Lease Owner

Requested Distribution of Completed D.S.T. Report Folder

for Ticket No. 09731

(This Order Must Be Filled Out and Signed By Company Representative)

Company Orig. Chart: Donald C. Slawson

ATT.: Donald C. Slawson

5 & Reports

P.O. BOX / STREET & NO. / BUILDING: 200 Douglas Bldg

CITY / STATE: Boulder, Colorado

ZIP CODE NUMBER: 80302

Company _____

ATT. _____

Reports

P.O. BOX / STREET & NO. / BUILDING _____

CITY / STATE _____

ZIP CODE NUMBER _____

Company _____

ATT. _____

Reports

P.O. BOX / STREET & NO. / BUILDING _____

CITY / STATE _____

ZIP CODE NUMBER _____

Company _____

ATT. _____

Reports

P.O. BOX / STREET & NO. / BUILDING _____

CITY / STATE _____

ZIP CODE NUMBER _____

Company _____

ATT. _____

Reports

P.O. BOX / STREET & NO. / BUILDING _____

CITY / STATE _____

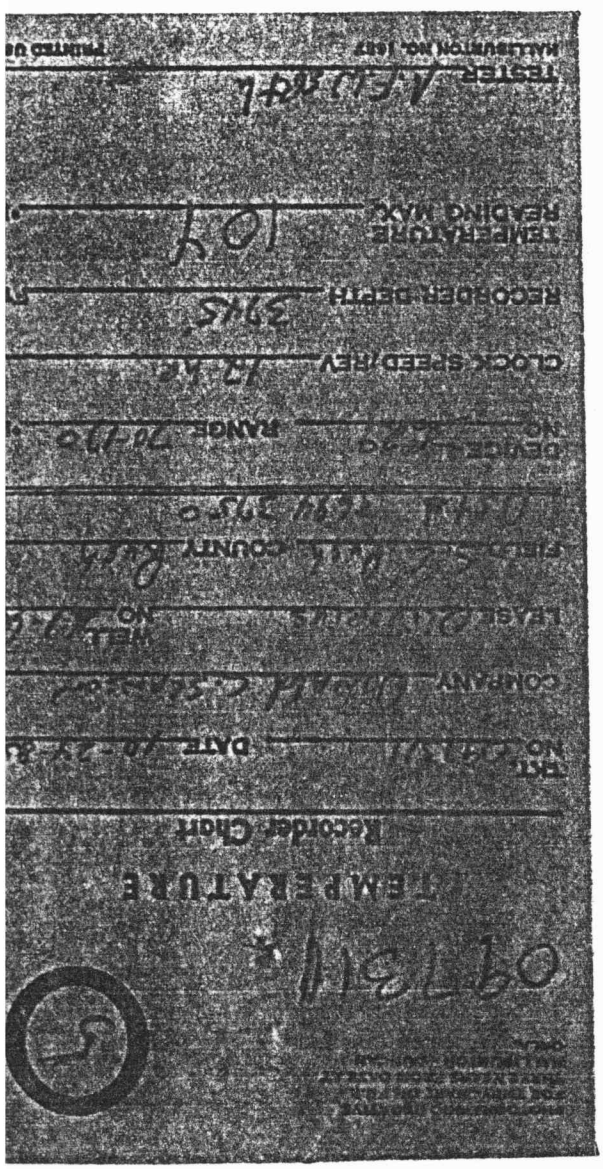
ZIP CODE NUMBER _____

Owner - Operator - or His Agent

SIGNED _____, Agent

Send 1st, 2nd and 3rd Copy with Charts

(Use Additional Sheets When Necessary)



097311-1891 5

RECORDING PRESSURE GAUGE CHART

Ticket No. 097311 Date 10-24-85

Company Donald C. Slawson

Lease Oliverius Well No. #1-Q

DST #1 FIELD READINGS 3614-3750

Device No. 1891			12 Hr. Clock No. 11647	
B.T. Gauge Depth 3747' Ft.			Estimated Gauge Depth Temperature 104 °F	
			Thousands of Inch	Pressure P.S.I.
Initial Hydro. Mud Pressure			2.920	1935
1st	Initial Flow Pressure		.040	25
	Final Flow Pressure		.040	35
	First Closed In Pressure		.740	209
2nd	Initial Flow Pressure		.040	25
	Final Flow Pressure		.040	35
	Second Closed In Pressure		.100	87
3rd	Initial Flow Pressure			
	Final Flow Pressure			
	Third Closed In Pressure			
Final Hydro. Mud Pressure			2.920	1935

Tester A.F. Werth

Form 892-R5
Printed in U.S.A.

HALLIBURTON SERVICES
A Halliburton Company

Photographic negative for this chart on file three years from date at Halliburton Duncan, Oklahoma 73536.

81-2882

W 097311-1890 5

RECORDING PRESSURE GAUGE CHART

Ticket No. 097311 Date 10-24-85

Company Donald C. Slawson

Lease Oliverius Well No. #1-Q

DST #1 FIELD READINGS 3694-3750

Device No. 1890			12 Hr. Clock No. 11657	
B.T. Gauge Depth 3684 Ft.			Estimated Gauge Depth Temperature 104 °F	
			Thousands of Inch	Pressure P.S.I.
Initial Hydro. Mud Pressure				
1st	Initial Flow Pressure			
	Final Flow Pressure			
	First Closed In Pressure			
2nd	Initial Flow Pressure			
	Final Flow Pressure			
	Second Closed In Pressure			
3rd	Initial Flow Pressure			
	Final Flow Pressure			
	Third Closed In Pressure			
Final Hydro. Mud Pressure				

Tester A.F. Werth

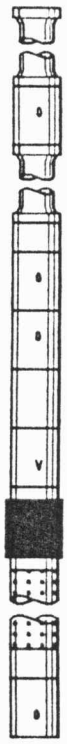
Form 892-R5
Printed in U.S.A.

HALLIBURTON SERVICES
A Halliburton Company

Photographic negative for this chart on file three years from date at Halliburton Duncan, Oklahoma 73536.

81-2882

TICKET NO. 097311



		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3608.0	
50	IMPACT REVERSING SUB.....	5.000	2.500	1.0	3608.0
1	DRILL PIPE.....	4.500	3.826	62.0	
5	CROSSOVER.....	5.000	2.500	1.0	
12	DUAL CIP VALVE.....	5.000	0.870	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	3682.0
80	AP RUNNING CASE.....	5.000	2.250	4.0	3684.0
16	VR SAFETY JOINT.....	5.000	1.000	3.0	
70	OPEN HOLE PACKER.....	6.750	1.530	6.0	3694.0
20	FLUSH JOINT ANCHOR.....	5.000	3.840	48.5	
83	HT-500 TEMPERATURE CASE.....	5.000		1.5	3745.0
81	BLANKED-OFF RUNNING CASE.....	5.000		4.0	3747.0
	TOTAL DEPTH				3750.0

EQUIPMENT DATA

EQUIPMENT & HOLE DATA

FORMATION TESTED: ARBUCKLE
NET PAY (ft): 19.0
GROSS TESTED FOOTAGE: 56.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 1993.0 KELLY BUSHING
TOTAL DEPTH (ft): 3750.0
PACKER DEPTH(S) (ft): 3694
FINAL SURFACE CHOKE (in):
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.80
MUD VISCOSITY (sec): 51
ESTIMATED HOLE TEMP. (°F):
ACTUAL HOLE TEMP. (°F): 140 @ 3745.0 ft

TICKET NUMBER: 09731100
DATE: 10-24-85 TEST NO: 1
TYPE DST: OPEN HOLE
HALLIBURTON CAMP: HAYS
TESTER: A.F. WERTH
WITNESS: KEN HAMLIN
DRILLING CONTRACTOR: L.D. DRILLING

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm

SAMPLER DATA

Psig AT SURFACE:
cu.ft. OF GAS:
cc OF OIL:
cc OF WATER:
cc OF MUD:
TOTAL LIQUID cc:

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): @ °F
GAS/OIL RATIO (cu.ft. per bbl):
GAS GRAVITY:

CUSHION DATA

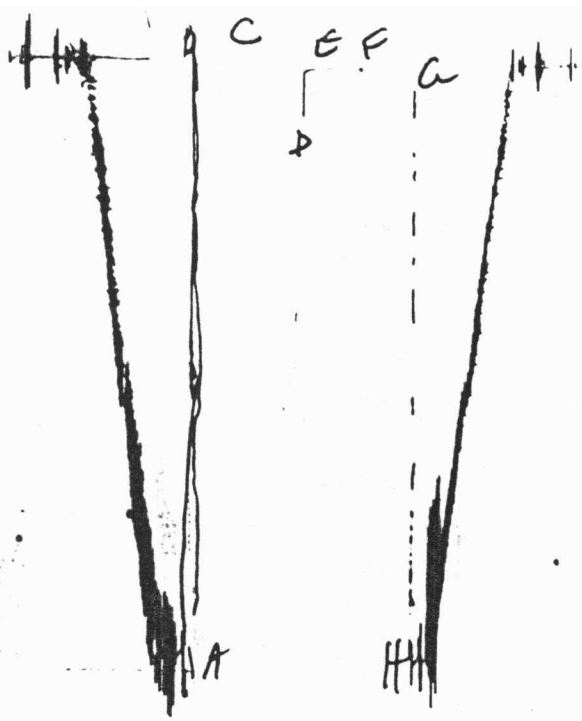
TYPE	AMOUNT	WEIGHT

RECOVERED:

29 FEET OF SLIGHTLY OIL CUT MUD
1 FOOT OF FREE OIL ON TOP

MEASURED FROM TESTER VALVE

REMARKS:



097311. 1890

DST #1

GAUGE NO: 1890 DEPTH: 3684.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1940.9			
B	INITIAL FIRST FLOW		16.0	30.0	30.0	F
C	FINAL FIRST FLOW		18.4			
C	INITIAL FIRST CLOSED-IN		18.4	30.0	30.0	C
D	FINAL FIRST CLOSED-IN		180.7			
E	INITIAL SECOND FLOW		35.9	30.0	30.0	F
F	FINAL SECOND FLOW		23.9			
F	INITIAL SECOND CLOSED-IN		23.9	30.0	30.0	C
G	FINAL SECOND CLOSED-IN		52.3			
H	FINAL HYDROSTATIC		1952.7			

HALLIBURTON

SERVICES

TICKET NO. 09731200

28-OCT-85

HAYS

FORMATION TESTING SERVICE REPORT

OLIVERIUS O

25 18S 18W

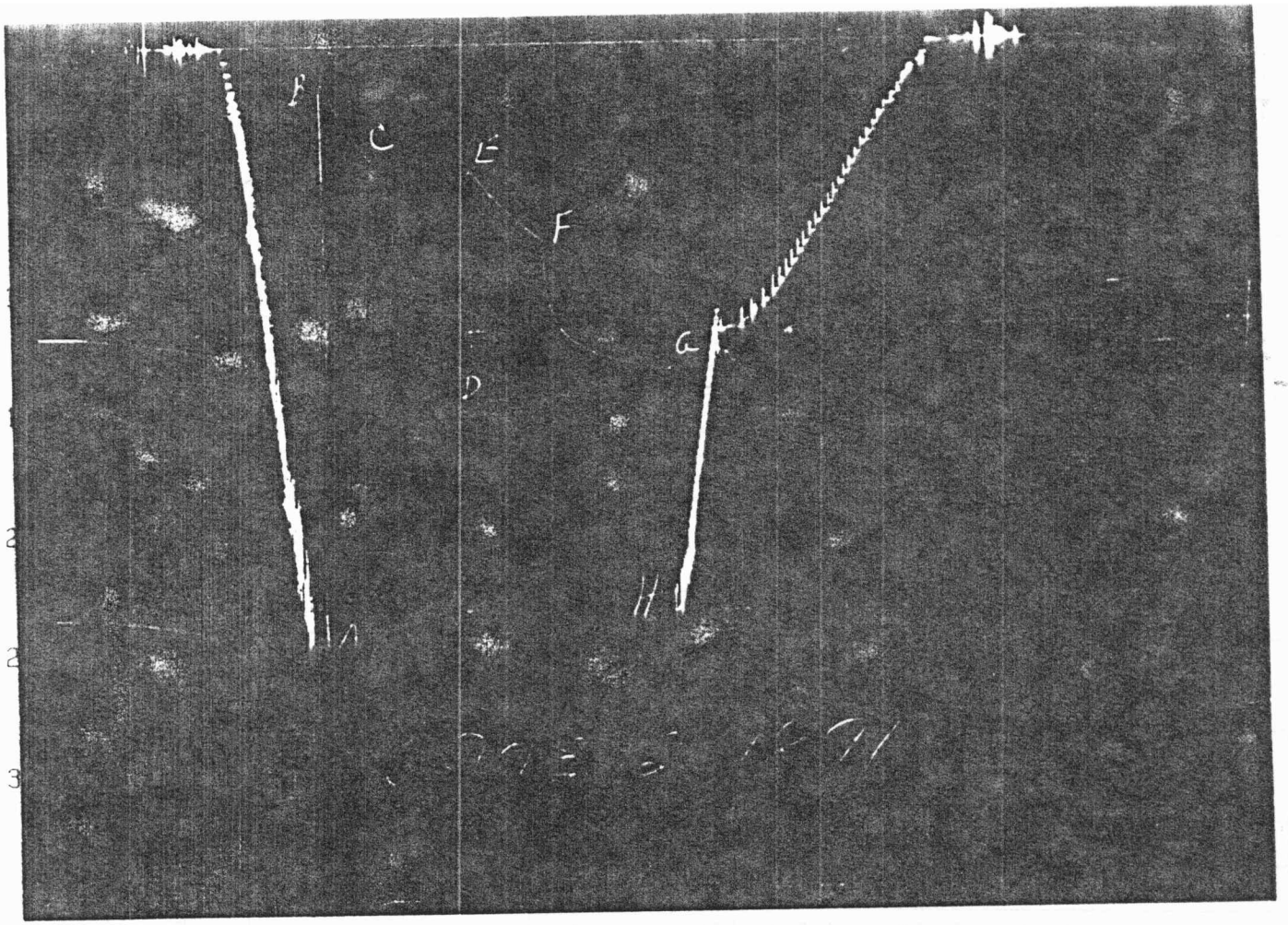
SOUTH E. OF RUSH CENTER

RUSH

KANSAS

3695.0 - 3755.0

DONALD C. SLAWSON



GAUGE NO: 1891 DEPTH: 3752.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1935	1972.1	1972		
B	INITIAL FIRST FLOW	104	140.1	125		
				30.0	30.0	F
C	FINAL FIRST FLOW	365	405.6	1404		
C	INITIAL FIRST CLOSED-IN	365	405.6			
				60.0	59.4	I
D	FINAL FIRST CLOSED-IN	1130	1146.9	1143		
E	INITIAL SECOND FLOW	435	448.8			
				45.0	45.3	F
F	FINAL SECOND FLOW	678	692.7	644		
F	INITIAL SECOND CLOSED-IN	678	692.7			
				75.0	75.2	I
G	FINAL SECOND CLOSED-IN	1130	1152.9	1148		
H	FINAL HYDROSTATIC	1935	1986.3	1996		

YPE & SIZE MEASURING DEVICE: _____ TICKET NO: 09731200

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
0-24-85					
345					CALLED OUT
435					ON LOCATION, RIG PULLING
					DRILL PIPE
510					OUT OF HOLE WITH DRILL PIPE
					PICKED UP AND MADE UP
					TEST TOOLS
.535					STARTED IN HOLE WITH TOOLS
1633					TOOLS ON BOTTOM
1635	1/4BH				TEST TOOL OPENED
1636					STRONG BLOW OFF BOTTOM OF
					BUCKET.
1705					CLOSED TOOL, BLED OFF
					PIPE PRESSURE.
1715					BLOW CAME BACK, 1 1/2" IN
					BUCKET, LIGHT BLOW.
1805	1/4BH				TOOL OPENED, BLEW OFF BOTTOM
					OF BUCKET IN 30 SECONDS.
					STRONG BLOW.
1850					TOOL CLOSED, BLED OFF PIPE
					PRESSURE
1900					BLOW CAME BACK, WEAK SURFACE
					BLOW.
1905					BLOW DIED
2005					TOOL OFF BOTTOM, PICKED UP
					5 JOINTS ON WEIGHT
					INDICATOR.

TICKET NO: 09731200

CLOCK NO: 11647 HOUR: 12

HALLIBURTON SERVICES

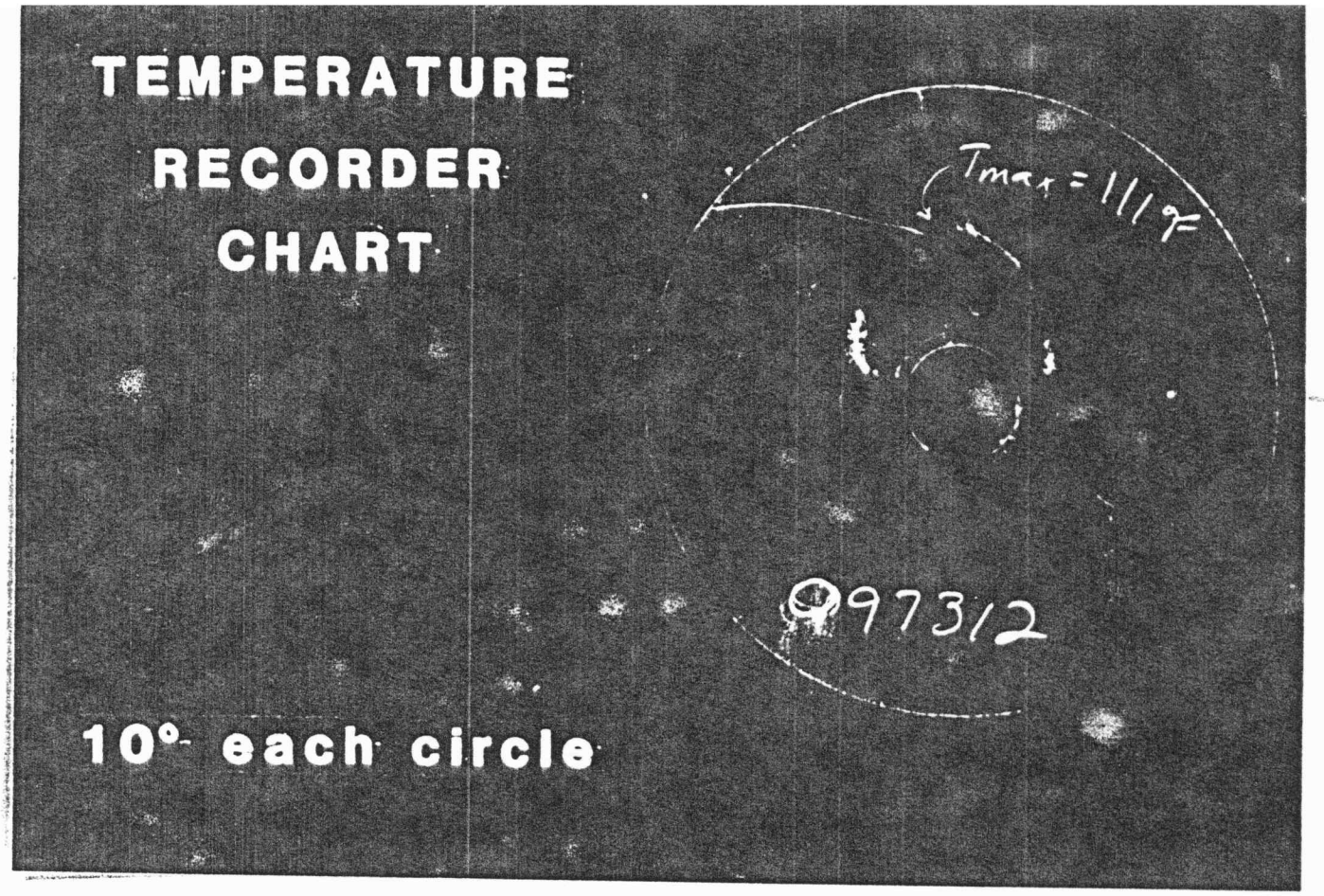
GAUGE NO: 1891

DEPTH: 8752.0

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	140.1			
	2	2.0	144.4	4.3		
	3	4.0	172.2	27.8		
	4	6.0	190.1	17.9		
	5	8.0	214.2	24.1		
	6	10.0	233.2	19.0		
	7	12.0	252.5	19.3		
	8	14.0	272.4	19.9		
	9	16.0	292.1	19.7		
	10	18.0	311.4	19.3		
	11	20.0	329.2	17.8		
	12	22.0	346.6	17.4		
	13	24.0	360.3	13.7		
	14	26.0	375.3	15.1		
	15	28.0	390.4	15.1		
C	16	30.0	405.6	15.2		
			FIRST CLOSED-IN			
C	1	0.0	405.6			
	2	1.0	679.7	274.1	1.0	1.480
	3	2.0	753.3	347.7	1.9	1.209
	4	3.0	804.3	398.7	2.7	1.045
	5	4.0	843.9	438.3	3.5	0.929
	6	5.0	875.3	469.7	4.3	0.842
	7	6.0	896.7	491.1	5.0	0.779
	8	7.0	918.1	512.5	5.7	0.724
	9	8.0	938.2	532.6	6.3	0.675
	10	9.0	954.0	548.4	6.9	0.637
	11	10.0	967.2	561.6	7.5	0.602
	12	12.0	989.7	584.1	8.6	0.544
	13	14.0	1010.6	604.9	9.6	0.497
	14	16.0	1024.7	619.1	10.4	0.459
	15	18.0	1039.2	633.5	11.3	0.426
	16	20.0	1050.7	645.1	12.0	0.398
	17	22.0	1060.9	655.3	12.7	0.373
	18	24.0	1069.9	664.2	13.3	0.353
	19	26.0	1077.7	672.1	13.9	0.334
	20	28.0	1084.5	678.9	14.5	0.317
	21	30.0	1091.4	685.8	15.0	0.301
	22	35.1	1105.9	700.3	16.2	0.269
	23	40.0	1117.5	711.9	17.2	0.243
	24	45.0	1126.9	721.3	18.0	0.222
	25	50.0	1134.9	729.3	18.8	0.204
	26	55.0	1142.3	736.7	19.4	0.189
D	27	59.4	1146.9	741.3	20.0	0.178
			SECOND FLOW			
E	1	0.0	448.8			

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
			SECOND FLOW - CONTINUED			
	2	3.0	455.3	6.4		
	3	6.0	475.0	19.8		
	4	9.0	495.9	20.9		
	5	12.0	517.4	21.5		
	6	15.0	536.8	19.4		
	7	18.0	556.9	20.1		
	8	21.0	574.6	17.7		
	9	24.0	591.4	16.8		
	10	27.0	610.0	18.6		
	11	30.1	632.2	22.2		
	12	33.0	636.9	4.7		
	13	36.0	651.7	14.9		
	14	39.0	665.2	13.5		
	15	42.0	678.6	13.4		
F	16	45.3	692.7	14.1		
			SECOND CLOSED-IN			
F	1	0.0	692.7			
	2	1.0	848.0	155.4	1.0	1.890
	3	2.0	887.3	194.6	1.9	1.588
	4	3.0	912.3	219.6	2.9	1.420
	5	4.0	933.1	240.4	3.8	1.295
	6	5.0	949.0	256.3	4.7	1.208
	7	6.0	962.4	269.8	5.5	1.133
	8	7.0	974.5	281.8	6.4	1.070
	9	8.0	986.1	293.4	7.3	1.017
	10	9.0	994.7	302.0	8.0	0.972
	11	10.0	1003.0	310.3	8.9	0.930
	12	12.0	1018.6	325.9	10.4	0.862
	13	14.0	1030.7	338.0	11.8	0.806
	14	16.0	1041.9	349.2	13.2	0.757
	15	18.0	1051.2	358.5	14.6	0.714
	16	20.0	1059.5	366.9	15.8	0.679
	17	22.0	1067.2	374.5	17.0	0.646
	18	24.0	1073.8	381.1	18.2	0.617
	19	26.0	1079.8	387.1	19.3	0.591
	20	28.0	1086.1	393.4	20.4	0.567
	21	30.0	1092.6	399.9	21.5	0.546
	22	35.0	1103.0	410.4	23.9	0.499
	23	40.0	1112.8	420.2	26.1	0.460
	24	45.0	1120.4	427.7	28.2	0.427
	25	50.0	1128.0	435.3	30.1	0.399
	26	55.0	1134.1	441.4	31.8	0.375
	27	60.0	1139.8	447.1	33.4	0.353
	28	70.0	1149.5	456.8	36.3	0.317
G	29	75.2	1152.9	460.3	37.6	0.302

REMARKS:



EQUATIONS FOR DST GAS WELL ANALYSIS

Indicated Flow Capacity	$kh = \frac{1637\ Q_g\ T}{m}$	md-ft
Average Effective Permeability	$k = \frac{kh}{h}$	md
Skin Factor	$S = 1.151 \left[\frac{m(P^*) - m(P_f)}{m} - \log\left(\frac{k(t)60)}{\phi\ \mu\ c_t r_w^2}\right) + 3.23 \right]$	—
Damage Ratio	$DR = \frac{m(P^*) - m(P_f)}{m(P^*) - m(P_f) - 0.87\ mS}$	—
Indicated Flow Rate (Maximum)	$AOF_1 = \frac{Q_g\ m(P^*)}{m(P^*) - m(P_f)}$	MCFD
Indicated Flow Rate (Minimum)	$AOF_2 = Q_g \sqrt{\frac{m(P^*)}{m(P^*) - m(P_f)}}$	MCFD
Approx. Radius of Investigation	$r_i = 0.032 \sqrt{\frac{k(t/60)}{\phi\mu c_t}}$	ft

D.S.T. Report Distribution

HALLIBURTON
SERVICES

A Division of Halliburton Company

FORM 1509R3 **DUNCAN, OKLAHOMA 73533**

Donald C Stanford

Company Name - - Lease Owner

Requested Distribution of Completed D.S.T. Report Folder

for Ticket No. 041312

(This Order Must Be Filled Out and Signed By Company Representative)

Company Orig. Chart & Reports: 5

Company: Donald C. Stanford

ATT.: Donald C. Stanford

P.O. BOX / STREET & NO. / BUILDING: 305 Doyle Bldg

CITY / STATE: Wichita KS

ZIP CODE NUMBER: 67202

Company

ATT.

P.O. BOX / STREET & NO. / BUILDING

CITY / STATE

ZIP CODE NUMBER

Reports: ○

Company

ATT.

P.O. BOX / STREET & NO. / BUILDING

CITY / STATE

ZIP CODE NUMBER

Reports: ○

Company

ATT.

P.O. BOX / STREET & NO. / BUILDING

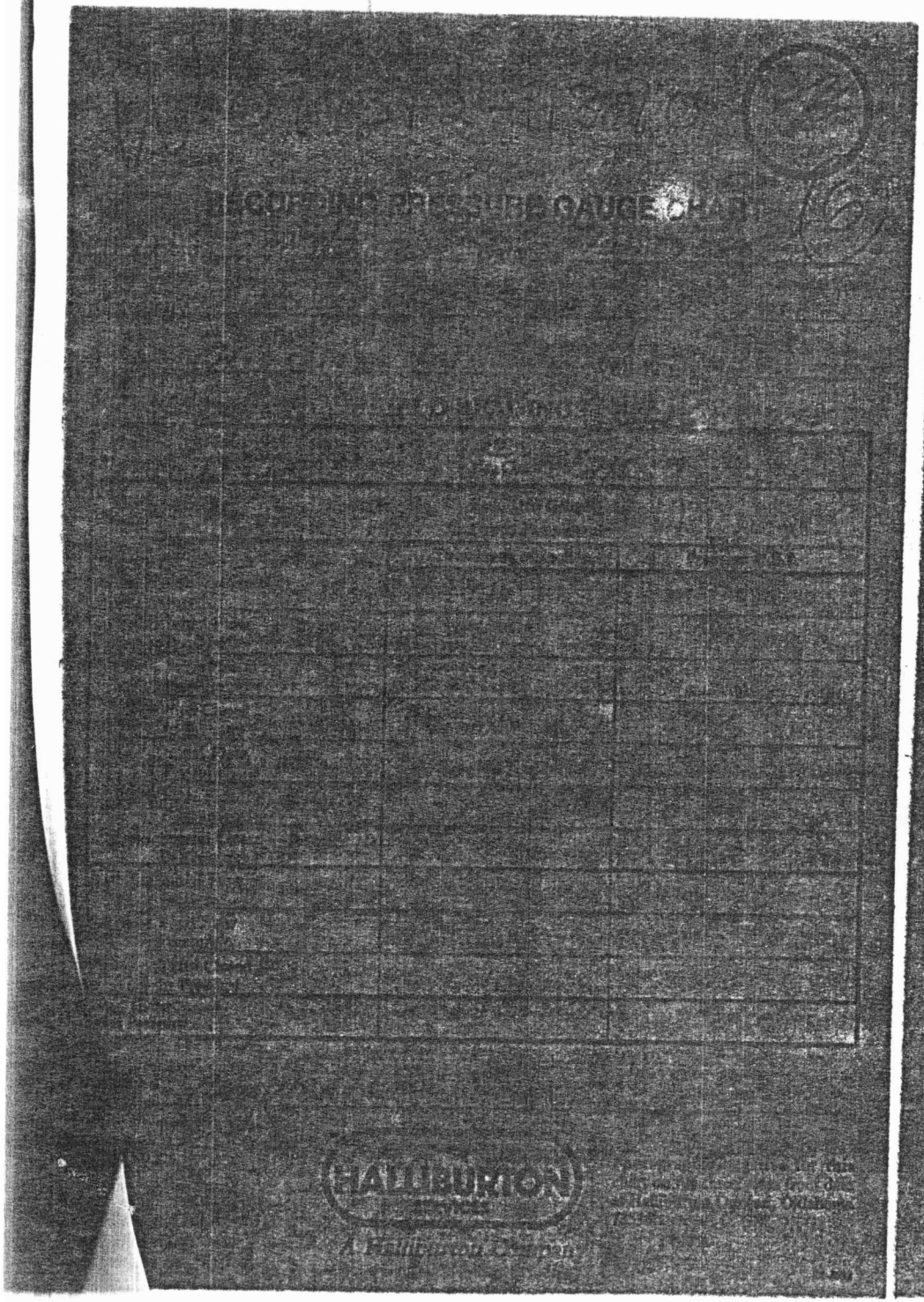
CITY / STATE

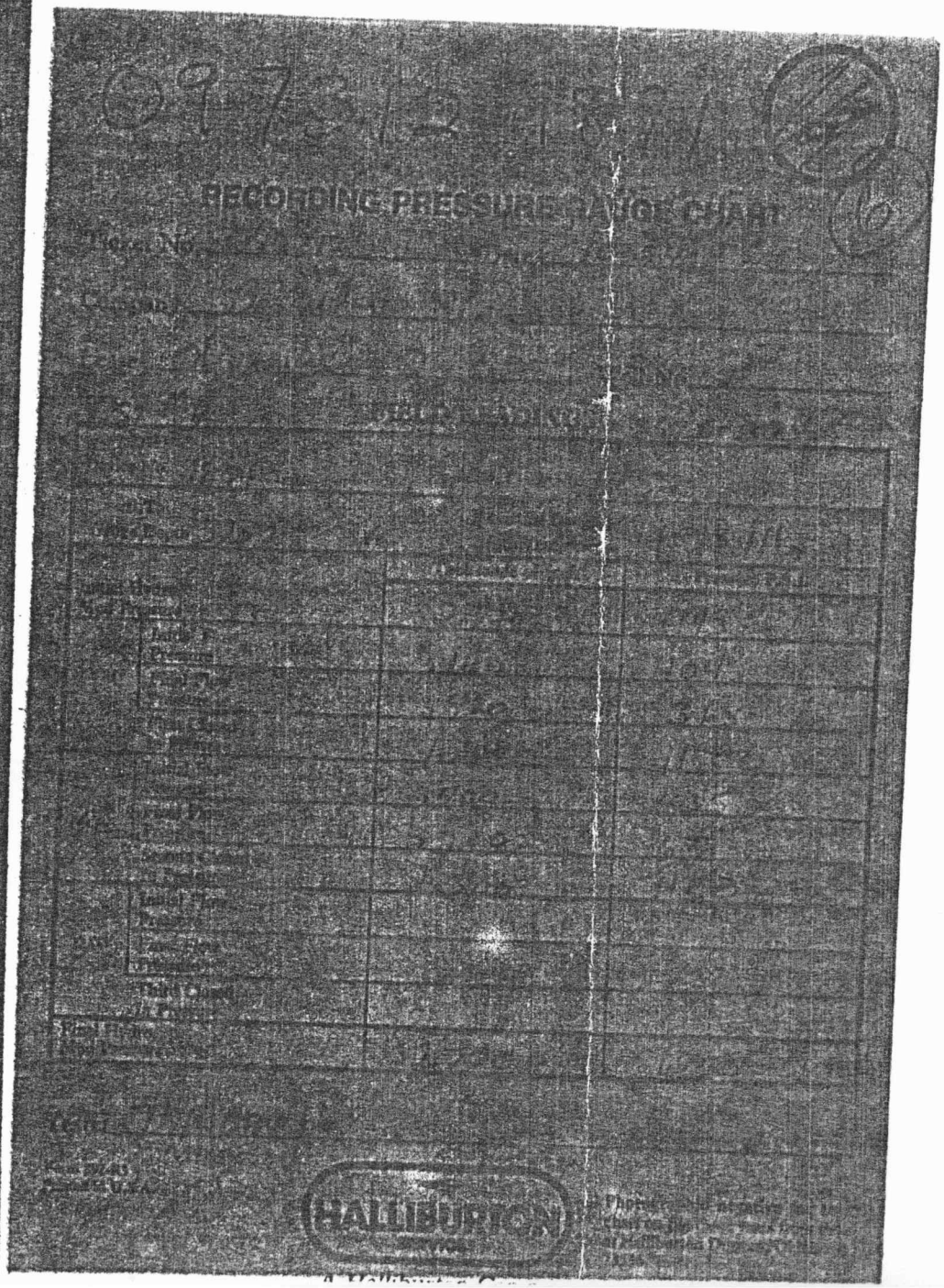
ZIP CODE NUMBER

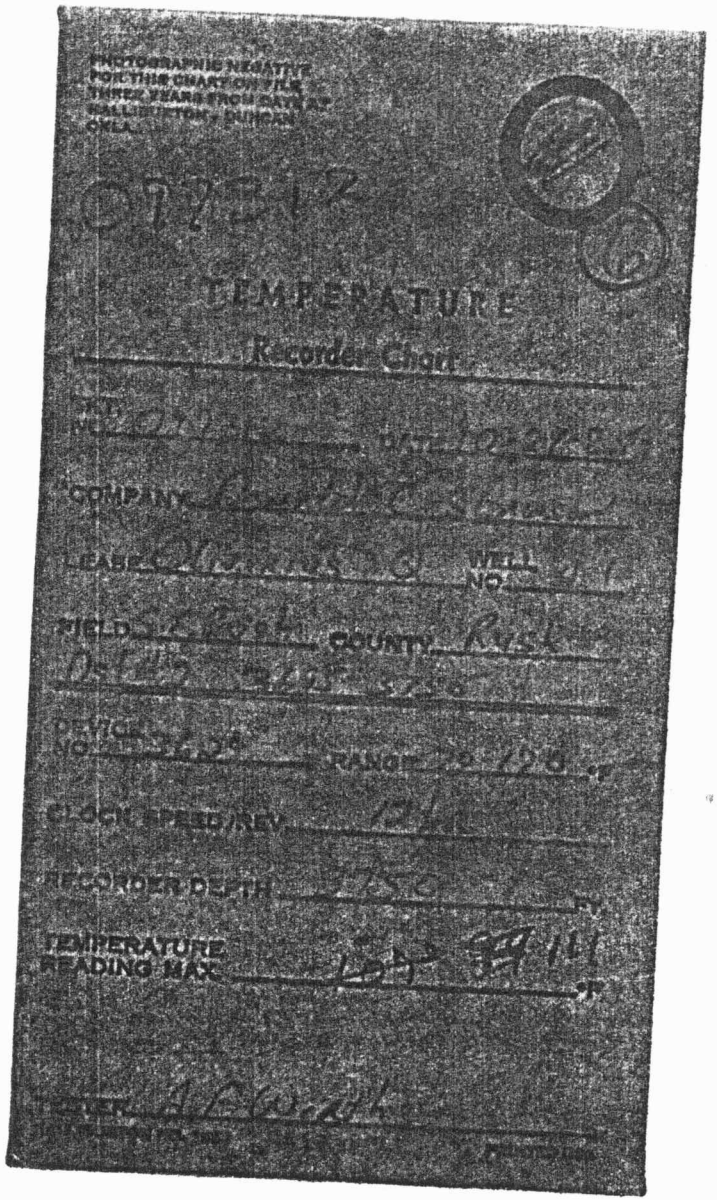
Reports: ○

Company

ATT.


RECORDING PRESSURE GAUGE CHART
HALLIBURTON


RECORDING PRESSURE GAUGE CHART
HALLIBURTON


PHOTOGRAPHIC NEGATIVE
HORNER CHART ON FILE
THREE YEARS FROM DATE OF
COLLECTION - DURHAM
OKLA.
TEMPERATURE
Recorder Chart
COMPANY
LEASE
WELL NO.
FIELD
COUNTY
DEVICE NO.
RANGE
CLOCK SPEED/REV.
RECORDER DEPTH
FT.
TEMPERATURE READING MAX.
°F
TESTER

TICKET NO.

		O.D.	I.D.	LENGTH	DEPTH
	DRILL PIPE.....	4.500	3.826	3550.0	
	IMPART REVERSING SUB.....	5.000	2.500	1.0	3550.0
	DRILL PIPE.....	4.500	3.826	124.0	
5	CROSSOVER.....	4.000	2.500	1.0	
	DUAL CIP VALVE.....	5.000	0.870	6.0	
	HYDROSPRING TESTER.....	5.000	0.750	5.0	3685.0
	HP RUNNING CASE.....	5.000	2.250	4.0	3687.0
10	HR SAFETY JOINT.....	5.000	1.000	3.0	
20	OPEN HOLE PACKER.....	6.750	1.530	6.0	3695.0
20	FLUSH JOINT ANCHOR.....	5.000	3.840		
83	HT-500 TEMPERATURE CASE.....	5.000		1.5	3750.0
81	BLANKED-OFF RUNNING CASE.....	5.000		4.0	3752.0

TOTAL DEPTH 3755.0

EQUIPMENT DATA

TICKET NO: 09731200

CLOCK NO: 11657 HOUR: 12

HALLIBURTON SERVICES

GAUGE NO: [illegible]

DEPTH: [illegible]

FIRST FLOW

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
B	1	0.0	128.8			
	2	2.0	110.2	-18.6		
	3	4.0	129.7	19.4		
	4	6.0	148.8	19.1		
	5	8.0	171.9	23.2		
	6	10.0	196.7	24.8		
	7	12.0	215.1	18.4		
	8	14.0	237.1	22.1		
	9	16.0	256.6	19.4		
	10	18.0	277.8	21.3		
	11	20.0	295.0	17.2		
	12	22.0	312.2	17.2		
	13	24.0	329.7	17.5		
	14	26.0	345.0	15.4		
	15	28.0	360.0	14.9		
C	16	30.0	377.9	17.9		

FIRST CLOSED-IN

C	1	0.0	377.9			
	2	1.0	653.3	275.4	1.0	1.496
	3	2.0	722.3	344.5	1.9	1.209
	4	3.0	771.8	393.9	2.8	1.038
	5	4.0	806.7	428.8	3.5	0.932
	6	5.0	834.5	456.6	4.3	0.848
	7	6.0	860.4	482.5	5.0	0.779
	8	7.0	879.8	501.9	5.7	0.724
	9	8.0	900.1	522.2	6.3	0.676
	10	9.0	915.7	537.8	6.9	0.636
	11	10.0	929.6	551.7	7.5	0.601
	12	12.0	954.1	576.2	8.6	0.544
	13	14.0	973.4	595.5	9.6	0.497
	14	16.0	989.2	611.3	10.4	0.459
	15	18.0	1004.6	626.7	11.3	0.426
	16	20.0	1018.2	640.3	12.0	0.398
	17	22.0	1028.4	650.5	12.7	0.374
	18	24.0	1038.4	660.5	13.3	0.352
	19	26.0	1047.2	669.3	13.9	0.333
	20	28.0	1055.0	677.1	14.5	0.316
	21	30.0	1062.3	684.4	15.0	0.301
	22	35.0	1078.3	700.4	16.2	0.269
	23	40.0	1091.6	713.7	17.2	0.243
	24	45.0	1102.5	724.6	18.0	0.222
	25	50.0	1111.1	733.2	18.8	0.204
	26	55.0	1118.2	740.4	19.4	0.189
D	27	59.4	1123.6	745.7	20.0	0.178

SECOND FLOW

E	1	0.0	443.0			

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$
		SECOND FLOW - [illegible] MIN. SI			
	2	3.0	436.4	-6.6	
	3	6.0	445.3	8.9	
	4	9.0	465.9	19.6	
	5	12.0	486.0	20.5	
	6	15.0	507.3	21.3	
	7	18.0	526.8	18.5	
	8	21.0	544.7	18.4	
	9	24.0	562.3	18.2	
	10	27.0	578.7	15.8	
	11	30.0	595.2	16.5	
	12	33.0	610.7	15.5	
	13	36.0	624.8	14.0	
	14	39.0	638.7	14.1	
	15	42.0	653.5	14.8	
F	16	45.3	667.8	14.3	

SECOND CLOSED-IN

F	1	0.0	667.8		
	2	1.0	817.0	149.2	1.0
	3	2.0	851.7	183.9	2.0
	4	3.0	877.7	209.9	2.9
	5	4.0	897.5	229.7	3.8
	6	5.0	914.1	246.3	4.7
	7	6.0	928.9	261.1	5.6
	8	7.0	940.2	272.4	6.4
	9	8.0	951.7	283.9	7.2
	10	9.0	960.7	292.9	8.1
	11	10.0	969.8	302.0	8.8
	12	12.0	985.2	317.4	10.3
	13	14.0	998.7	330.9	11.8
	14	16.0	1010.5	342.7	13.2
	15	18.0	1020.2	352.4	14.5
	16	20.0	1029.8	362.0	15.8
	17	22.0	1037.7	369.9	17.0
	18	24.0	1045.3	377.5	18.2
	19	26.0	1052.3	384.5	19.3
	20	28.0	1058.6	390.8	20.4
	21	30.0	1064.7	396.9	21.5
	22	35.0	1077.8	410.0	23.9
	23	40.0	1089.5	421.7	26.1
	24	45.0	1098.4	430.6	28.2
	25	50.0	1105.5	437.7	30.0
	26	55.0	1112.1	444.3	31.8
	27	60.0	1117.9	450.1	33.4
	28	70.0	1128.3	460.5	36.3
G	29	75.2	1131.3	463.5	37.6

REMARKS:

EQUIPMENT & HOLE DATA

FORMATION TESTED: ARBUCKLE
NET PAY (ft): 5.0
GROSS TESTED FOOTAGE: 60.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 1993.0 KELLY BUSHING
TOTAL DEPTH (ft): 3755.0
PACKER DEPTH(S) (ft): 3695
FINAL SURFACE CHOKE (in):
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.80
MUD VISCOSITY (sec): 51
ESTIMATED HOLE TEMP. (°F): 107
ACTUAL HOLE TEMP. (°F): 111 @ 3750.0 ft

TICKET NUMBER: 00331200
DATE: 10-04-85 TEST NO
TYPE DST: OPEN HOLE
HALLIBURTON CAMP: HAYS
TESTER: A.F. WERTH
WITNESS: KEN HAMLIN
DRILLING CONTRACTOR: L.D. DRILLING

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm

SAMPLER DATA

Psig AT SURFACE:
cu.ft. OF GAS:
cc OF OIL:
cc OF WATER:
cc OF MUD:
TOTAL LIQUID cc:

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): 42.0 @ 60 °F
GAS/OIL RATIO (cu.ft. per bbl):
GAS GRAVITY:

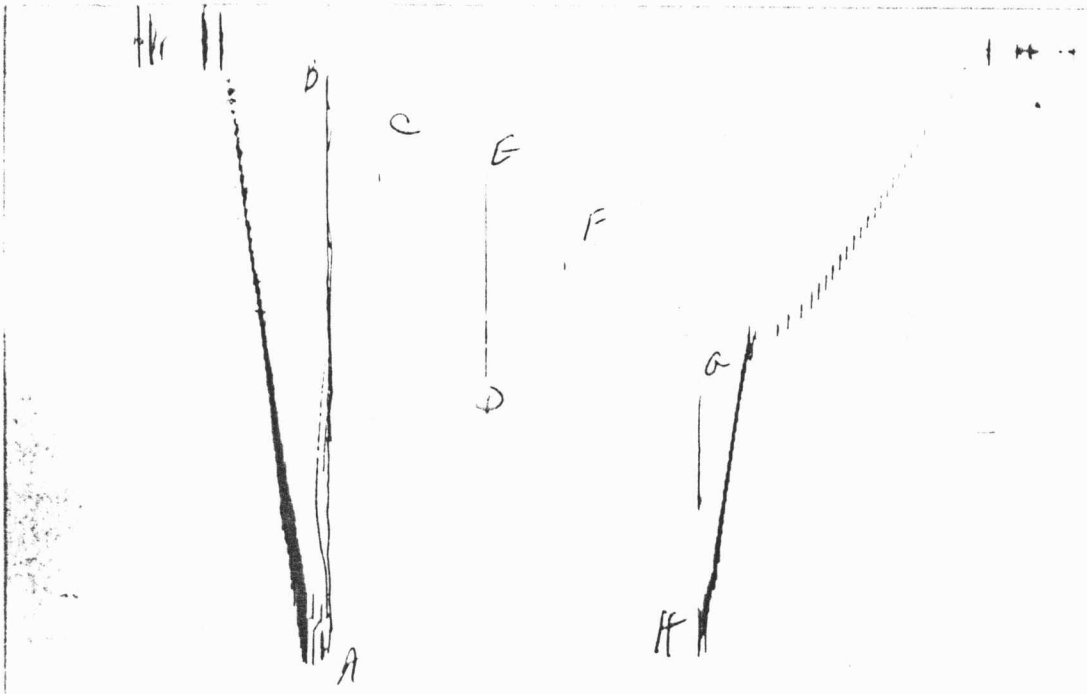
CUSHION DATA

TYPE	AMOUNT	WEI

RECOVERED:

1064 FEET OF GASSY FREE OIL
806 FEET OF FROGGY OIL
.....
400 FEET OF GAS IN PIPE

REMARKS:



097312-1890

Dst#2

GAUGE NO: 1890 DEPTH: 3687.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1949.9			
B	INITIAL FIRST FLOW		128.8	30.0	30.0	F
C	FINAL FIRST FLOW		377.9			
C	INITIAL FIRST CLOSED-IN		377.9	60.0	59.4	C
D	FINAL FIRST CLOSED-IN		1123.6			
E	INITIAL SECOND FLOW		443.0	45.0	45.3	F
F	FINAL SECOND FLOW		667.8			
F	INITIAL SECOND CLOSED-IN		667.8	75.0	75.2	C
G	FINAL SECOND CLOSED-IN		1131.3			
H	FINAL HYDROSTATIC		1979.1			