LEGAL LOCATION SEC. - TWP. - RNG.	LEASE NAME	WELL NO.	TEST NO.	FIELD AREA	COUNTY	STATE
7 - 8S - 25W	CURRIER	E-1	1	N.E. OF STUDLEY	GRAHAM	KANSAS

TESTED INTERVAL: 3757.' - 3800.'

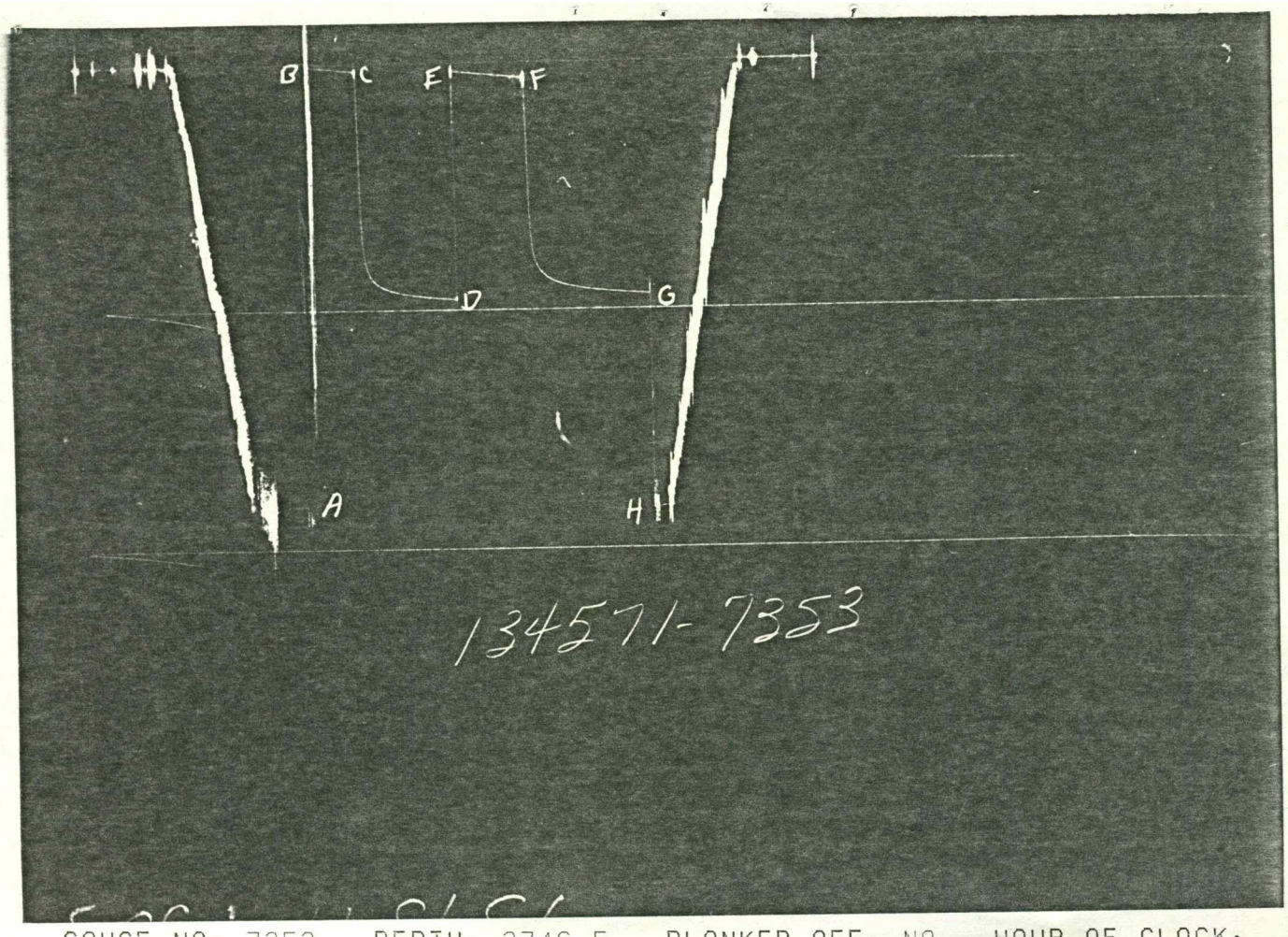
LEASE OWNER/COMPANY NAME: DONALD C. SLAWSON

7-8S-25W
SW-SW-SE

HALLIBURTON
SERVICES

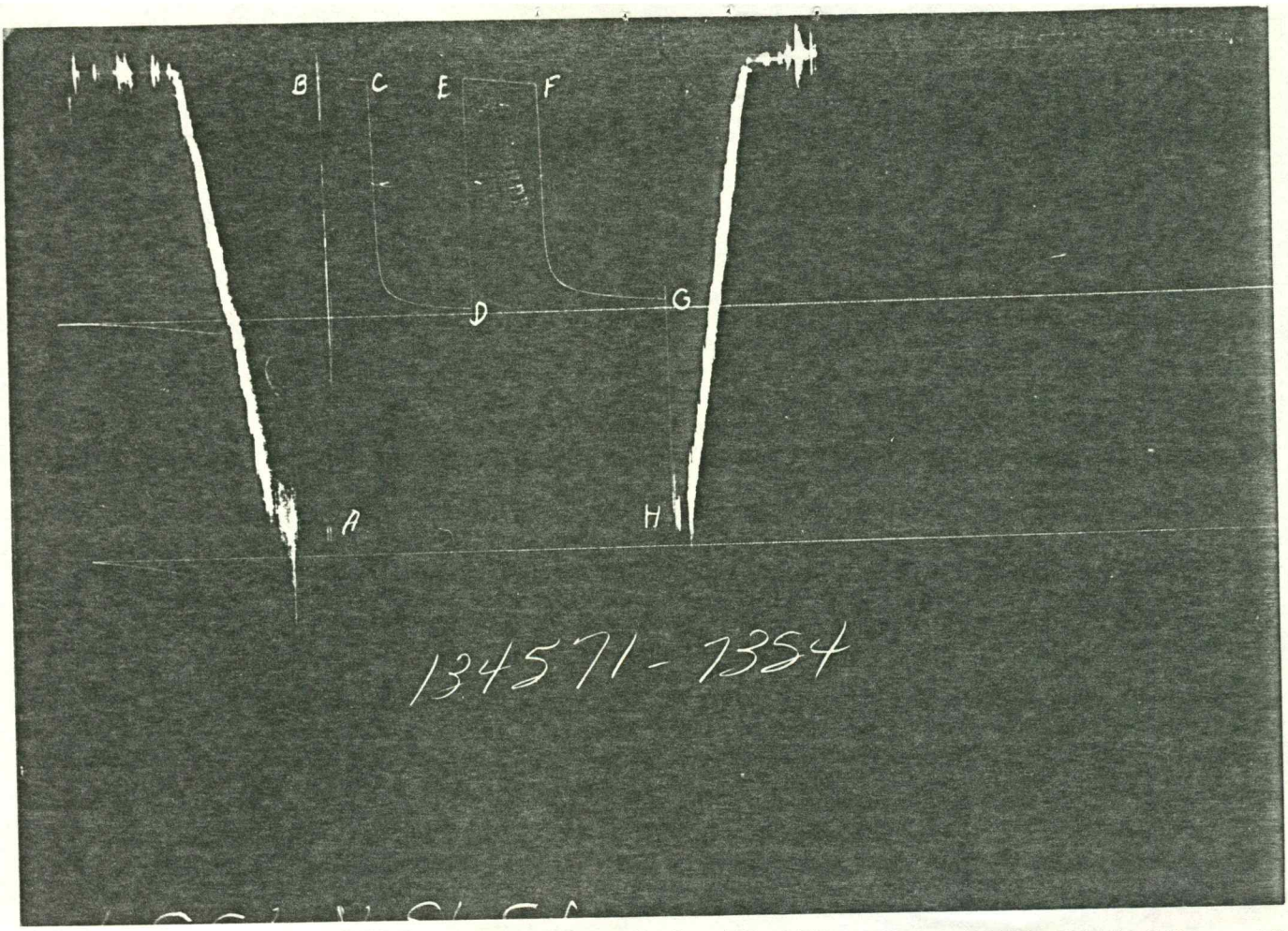
TICKET NO. 13457100
29-JUN-82
OBERLIN

FORMATION TESTING SERVICE REPORT



GAUGE NO: 7353 DEPTH: 3746.5 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1863.1			
B	INITIAL FIRST FLOW		10.1	30.0	29.9	F
C	FINAL FIRST FLOW		30.6			
C	INITIAL FIRST CLOSED-IN		30.6	60.0	59.0	C
D	FINAL FIRST CLOSED-IN		970.1			
E	INITIAL SECOND FLOW		34.7	44.0	44.8	F
F	FINAL SECOND FLOW		63.6			
F	INITIAL SECOND CLOSED-IN		63.6	75.0	75.3	C
G	FINAL SECOND CLOSED-IN		954.9			
H	FINAL HYDROSTATIC		1844.8			



GAUGE NO: 7354 DEPTH: 3797.5 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1868.7			
B	INITIAL FIRST FLOW		38.0	30.0	29.9	F
C	FINAL FIRST FLOW		57.5			
C	INITIAL FIRST CLOSED-IN		57.5	60.0	59.0	C
D	FINAL FIRST CLOSED-IN		995.8			
E	INITIAL SECOND FLOW		62.5	44.0	44.8	F
F	FINAL SECOND FLOW		90.1			
F	INITIAL SECOND CLOSED-IN		90.1	75.0	75.3	C
G	FINAL SECOND CLOSED-IN		980.6			
H	FINAL HYDROSTATIC		1871.5			

EQUIPMENT & HOLE DATA

FORMATION TESTED: LOWER KANSAS CITY
NET PAY (ft): 3.0
GROSS TESTED FOOTAGE: 43.2
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 2460
TOTAL DEPTH (ft): 3800.0
PACKER DEPTH(S) (ft): 3757
FINAL SURFACE CHOKE (in): 0.250
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.00
MUD VISCOSITY (sec): 41
ESTIMATED HOLE TEMP. (°F):
ACTUAL HOLE TEMP. (°F): 110 @ 3796.0 ft

TICKET NUMBER: 13457100

DATE: 6-23-82 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: OBERLIN

TESTER: RICK DEIBERT

WITNESS:

DRILLING CONTRACTOR: SLAWSON DRILLING RIG #1

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY		CHLORIDES
MUD REPORT	@ °F		1400 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:

18 FEET OF DRILLING MUD.
107 FEET OF MUDDY SALTWATER.

MEASURED FROM TESTER VALVE

REMARKS:

TYPE & SIZE MEASURING DEVICE: _____ TICKET NO: 13457100

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
1305					CALLED OUT, READY AT 1430.
1450					ON LOCATION, RIG WAITING.
1510					PICKED UP AND MADE UP TOOLS.
1550					TOOL IN TABLE, READY.
1555					TOOL THROUGH TABLE.
1728					TOOL OPENED WITH A WEAK BLOW
					AT SURFACE, INCREASED TO 3".
1758					CLOSED TOOL - BLED LINES.
					BLOW DID NOT RETURN.
1858					OPENED TOOL - AFTER 5 MINUTES,
					WEAK BLOW AT SURFACE, INCREAS-
					ING TO 1 1/2".
1942					CLOSED TOOL-BLED LINES. BLOW
					DID NOT RETURN.
2057					TOOL OFF BOTTOM.
2158					TOOL IN TABLE.
2230					TOOL LAID DOWN.
2300					JOB COMPLETED.

TICKET NO: 13457100

CLOCK NO: 4204 HOUR: 12

HALLIBURTON SERVICES

GAUGE NO: 7353

DEPTH: 3746.5

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	10.1			
	2	5.0	13.9	3.8		
	3	10.0	17.4	3.4		
	4	15.0	21.0	3.6		
	5	20.0	24.5	3.5		
	6	25.0	28.0	3.4		
C	7	29.9	30.6	2.6		
		FIRST CLOSED-IN				
C	1	0.0	30.6			
	2	4.0	840.3	809.7	3.6	0.924
	3	8.0	891.8	861.2	6.3	0.674
	4	12.0	914.5	883.9	8.6	0.542
	5	16.0	927.7	897.1	10.4	0.458
	6	20.0	936.4	905.8	12.0	0.397
	7	24.0	944.4	913.8	13.3	0.352
	8	28.0	949.7	919.1	14.5	0.316
	9	32.0	953.6	923.0	15.5	0.286
	10	36.0	957.5	926.9	16.3	0.263
	11	40.0	960.5	929.9	17.1	0.242
	12	44.0	963.2	932.5	17.8	0.225
	13	48.0	965.7	935.1	18.4	0.210
	14	52.0	967.2	936.6	19.0	0.197
	15	56.0	969.2	938.6	19.5	0.186
D	16	59.0	970.1	939.5	19.8	0.178
		SECOND FLOW				
E	1	0.0	34.7			
	2	9.0	39.9	5.2		
	3	18.0	46.0	6.1		
	4	27.0	52.2	6.3		
	5	36.0	58.1	5.9		
F	6	44.8	63.6	5.6		
		SECOND CLOSED-IN				
F	1	0.0	63.6			
	2	5.0	820.8	757.1	4.7	1.202
	3	10.0	871.2	807.5	8.8	0.927
	4	15.0	893.5	829.8	12.5	0.776
	5	20.0	907.2	843.6	15.8	0.675
	6	25.0	916.3	852.6	18.7	0.600
	7	30.0	924.4	860.8	21.4	0.543
	8	35.0	930.1	866.5	23.8	0.496
	9	40.0	934.9	871.3	26.0	0.458
	10	45.0	939.2	875.5	28.1	0.425
	11	50.0	943.2	879.5	30.0	0.397

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
		SECOND CLOSED-IN - CONTINUED				
	12	55.0	946.0	882.3	31.7	0.373
	13	60.0	949.2	885.6	33.3	0.351
	14	65.0	950.9	887.3	34.8	0.332
	15	70.0	952.5	888.9	36.1	0.315
G	16	75.3	954.9	891.3	37.5	0.299

REMARKS:

TICKET NO: 13457100	GAUGE NO: 7354
CLOCK NO: 7105 HOUR: 12	DEPTH: 3797.5

HALLIBURTON SERVICES

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	38.0			
	2	5.0	40.0	2.0		
	3	10.0	44.5	4.4		
	4	15.0	47.3	2.8		
	5	20.0	51.5	4.2		
	6	25.0	54.4	2.9		
C	7	29.9	57.5	3.0		
		FIRST CLOSED-IN				
C	1	0.0	57.5			
	2	4.0	865.8	808.4	3.6	0.924
	3	8.0	919.7	862.3	6.3	0.677
	4	12.0	939.1	881.6	8.6	0.542
	5	16.0	952.2	894.7	10.4	0.457
	6	20.0	961.6	904.2	12.0	0.397
	7	24.0	969.1	911.7	13.3	0.352
	8	28.0	974.2	916.8	14.4	0.316
	9	32.0	979.0	921.5	15.5	0.287
	10	36.0	982.7	925.2	16.3	0.263
	11	40.0	985.5	928.0	17.1	0.242
	12	44.0	988.3	930.8	17.8	0.225
	13	48.0	990.6	933.1	18.4	0.210
	14	52.0	992.6	935.1	19.0	0.197
	15	56.0	994.5	937.0	19.5	0.186
D	16	59.0	995.8	938.3	19.8	0.178
		SECOND FLOW				
E	1	0.0	62.5			
	2	9.0	65.7	3.2		
	3	18.0	72.1	6.4		
	4	27.0	78.2	6.1		
	5	36.0	84.3	6.0		
F	6	44.8	90.1	5.8		
		SECOND CLOSED-IN				
F	1	0.0	90.1			
	2	5.0	843.8	753.7	4.7	1.203
	3	10.0	895.2	805.1	8.8	0.927
	4	15.0	917.4	827.3	12.5	0.776
	5	20.0	931.9	841.7	15.8	0.675
	6	25.0	942.3	852.2	18.7	0.601
	7	30.0	949.9	859.8	21.4	0.542
	8	35.0	955.5	865.4	23.8	0.496
	9	40.0	960.2	870.1	26.1	0.457
	10	45.0	964.4	874.3	28.1	0.425
	11	50.0	968.0	877.9	29.9	0.397

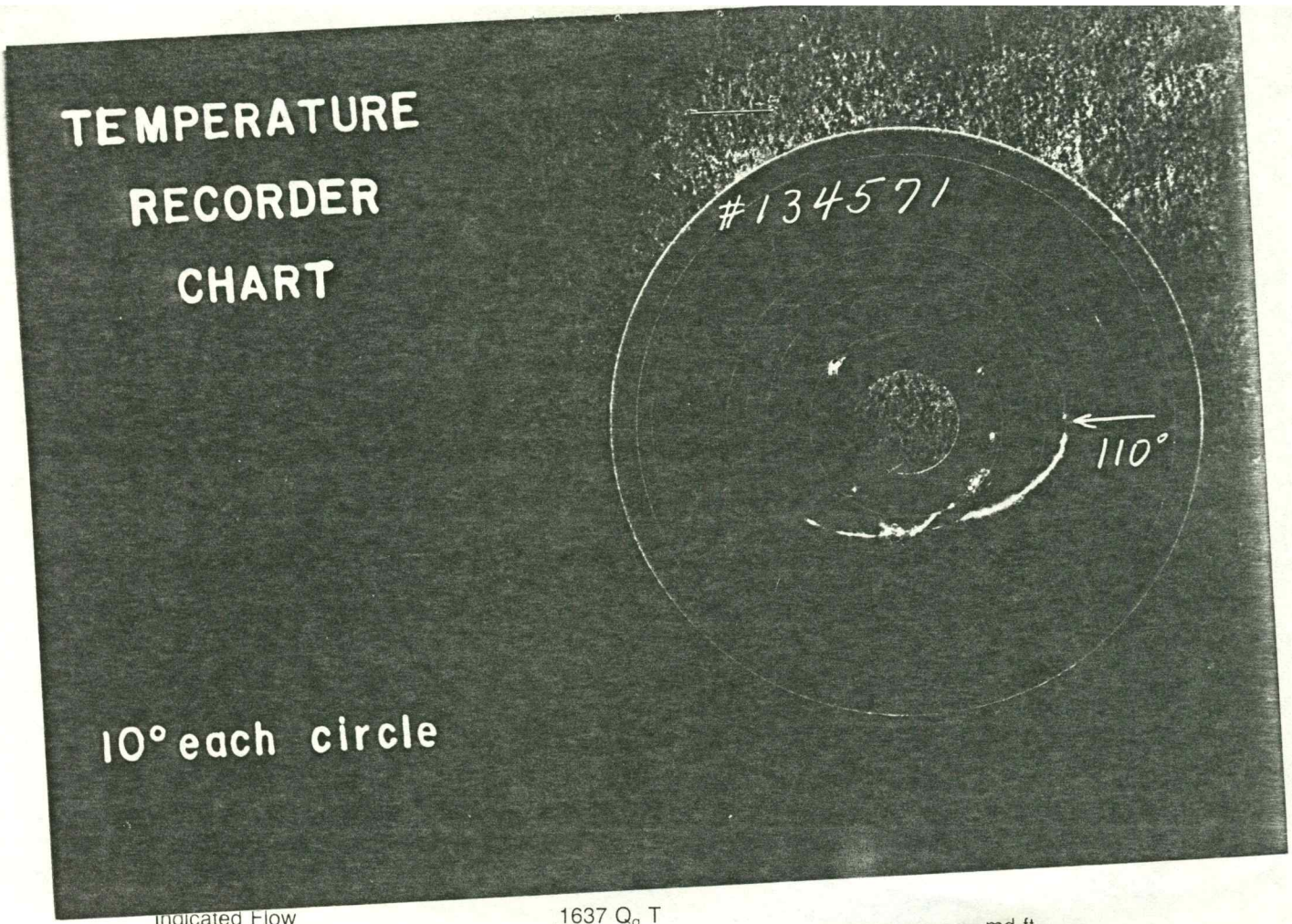
REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
		SECOND CLOSED-IN - CONTINUED				
	12	55.0	971.9	881.8	31.7	0.372
	13	60.0	973.9	883.8	33.3	0.351
	14	65.0	976.3	886.1	34.7	0.332
	15	70.0	978.4	888.2	36.1	0.315
G	16	75.3	980.6	890.4	37.5	0.299

REMARKS:

TICKET NO. 13457100

		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3607.8	
50	IMPACT REVERSING SUB.....	5.750	2.750	1.0	3608.8
1	DRILL PIPE.....	4.500	3.826	125.0	
12	DUAL CIP VALVE.....	5.030	0.870	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	3744.5
80	AP RUNNING CASE.....	5.000	2.250	4.1	3746.5
16	VR SAFETY JOINT.....	5.000	1.000	2.8	
70	OPEN HOLE PACKER.....	6.750	1.530	5.8	3756.8
20	FLUSH JOINT ANCHOR.....	5.000	2.370	36.0	
83	HT-500 TEMPERATURE CASE.....	5.000	2.250	1.5	3796.0
81	BLANKED-OFF RUNNING CASE.....	5.000	2.440	4.1	3797.5
	TOTAL DEPTH				3800.0

EQUIPMENT DATA



Indicated Flow Capacity	$kh = \frac{1637\ Q_g\ T}{m}$	md-ft
Average Effective Permeability	$k = \frac{kh}{h}$	md
Skin Factor	$S = 1.151 \left[\frac{m(P^*) - m(P_f)}{m} - \text{LOG} \frac{kt}{\phi\ \mu\ c_t r_w^2} + 3.23 \right]$	—
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	$r_i = 0.032 \sqrt{\frac{kt}{\phi \mu c_t}}$	ft

CURRIER	E-1	2	3882.' - 3914.'	DONALD C. SLAWSON
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME

LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE
7-8S-25W	NORTHEAST OF STUDLEY	GRAHAM	KANSAS BC

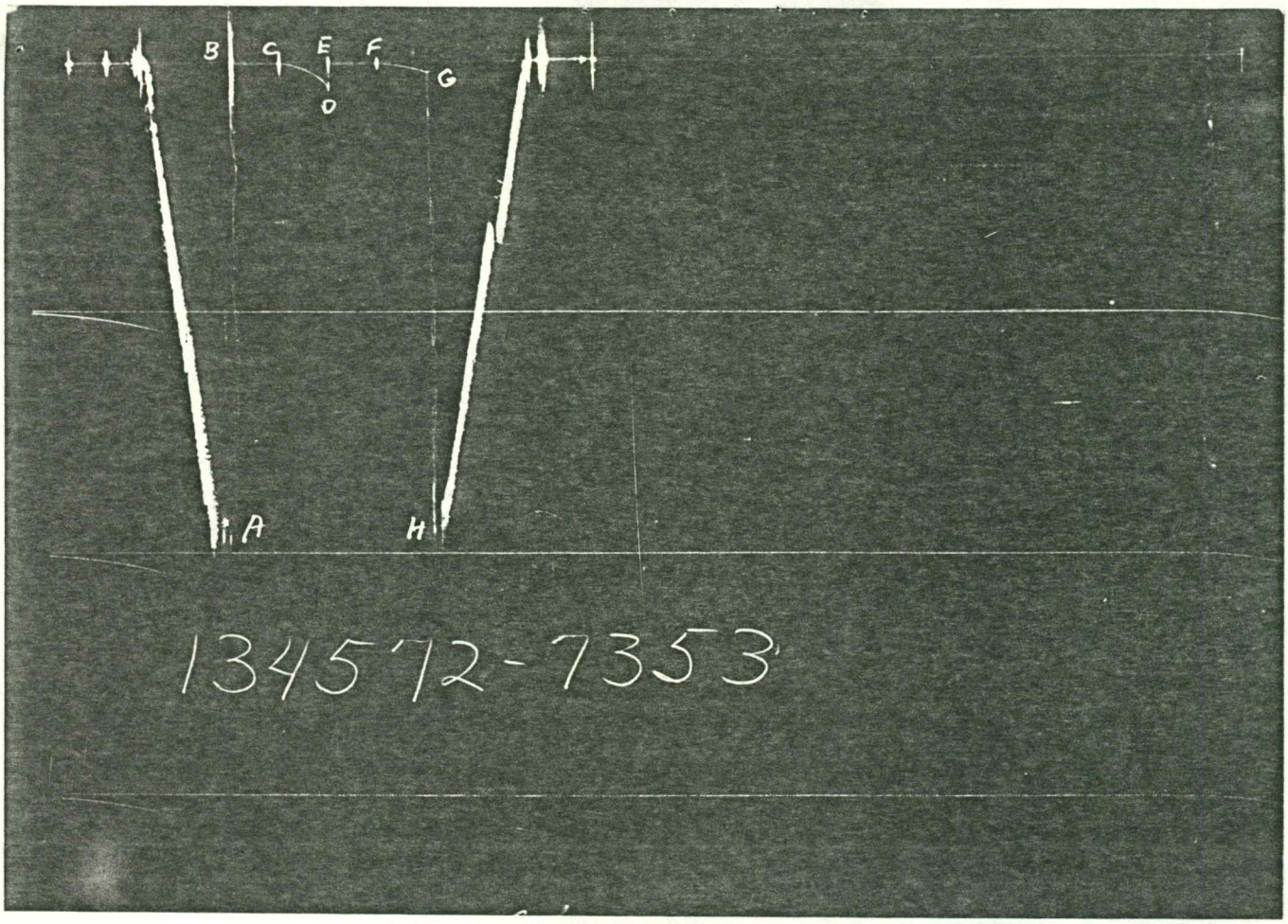
7-8S-25W
SW-SW-SE

HALLIBURTON
SERVICES

TICKET NO. 13457200
29-JUN-82
OBERLIN

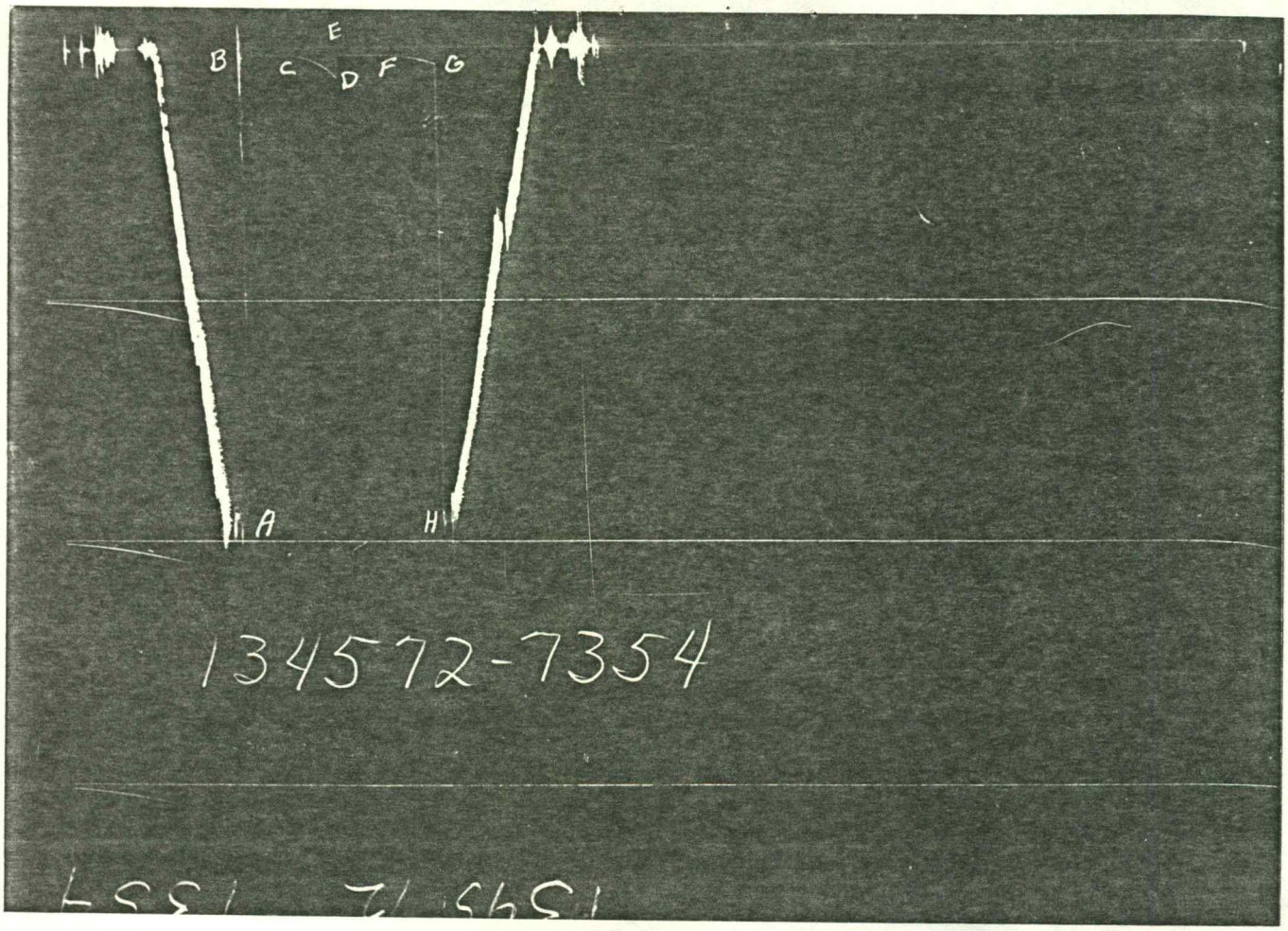
RECEIVED
JUL 26 '82
GREAT BEND
Division Office

FORMATION TESTING SERVICE REPORT



GAUGE NO: 7353 DEPTH: 3871.5 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1923.6			
B	INITIAL FIRST FLOW		5.1	30.0	30.0	F
C	FINAL FIRST FLOW		5.8			
C	INITIAL FIRST CLOSED-IN		5.8	30.0	30.0	C
D	FINAL FIRST CLOSED-IN		96.5			
E	INITIAL SECOND FLOW		6.6	30.0	30.0	F
F	FINAL SECOND FLOW		6.7			
F	INITIAL SECOND CLOSED-IN		6.7	30.0	30.0	C
G	FINAL SECOND CLOSED-IN		43.7			
H	FINAL HYDROSTATIC		1904.5			



GAUGE NO: 7354 DEPTH: 3911.5 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1941.1			
B	INITIAL FIRST FLOW		26.8	30.0	30.0	F
C	FINAL FIRST FLOW		27.9			
C	INITIAL FIRST CLOSED-IN		27.9	30.0	30.0	C
D	FINAL FIRST CLOSED-IN		119.3			
E	INITIAL SECOND FLOW		28.8	30.0	30.0	F
F	FINAL SECOND FLOW		29.3			
F	INITIAL SECOND CLOSED-IN		29.3	30.0	30.0	C
G	FINAL SECOND CLOSED-IN		65.7			
H	FINAL HYDROSTATIC		1926.3			

EQUIPMENT & HOLE DATA

FORMATION TESTED: LOWER KANSAS CITY
NET PAY (ft): 3.0
GROSS TESTED FOOTAGE: 32.0
ALL DEPTHS MEASURED FROM: KB
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 2460
TOTAL DEPTH (ft): 3914.0
PACKER DEPTH(S) (ft): 3882
FINAL SURFACE CHOKE (in):
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.30
MUD VISCOSITY (sec): 42
ESTIMATED HOLE TEMP. (°F):
ACTUAL HOLE TEMP. (°F): 109 @ 3909.0 ft

TICKET NUMBER: 13457200

DATE: 6-24-82 TEST NO: 2

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: OBERLIN

TESTER: MR. DEIBERT

WITNESS:

DRILLING CONTRACTOR: SLAWSON DRILLING COMPANY RIG #1

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY		CHLORIDES
MUD REPORT		@ °F	1500 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:

4' OF DRILLING MUD

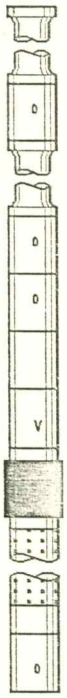
MEASURED FROM TESTER VALVE

REMARKS:

TYPE & SIZE MEASURING DEVICE: ______ | TICKET NO: 13457200

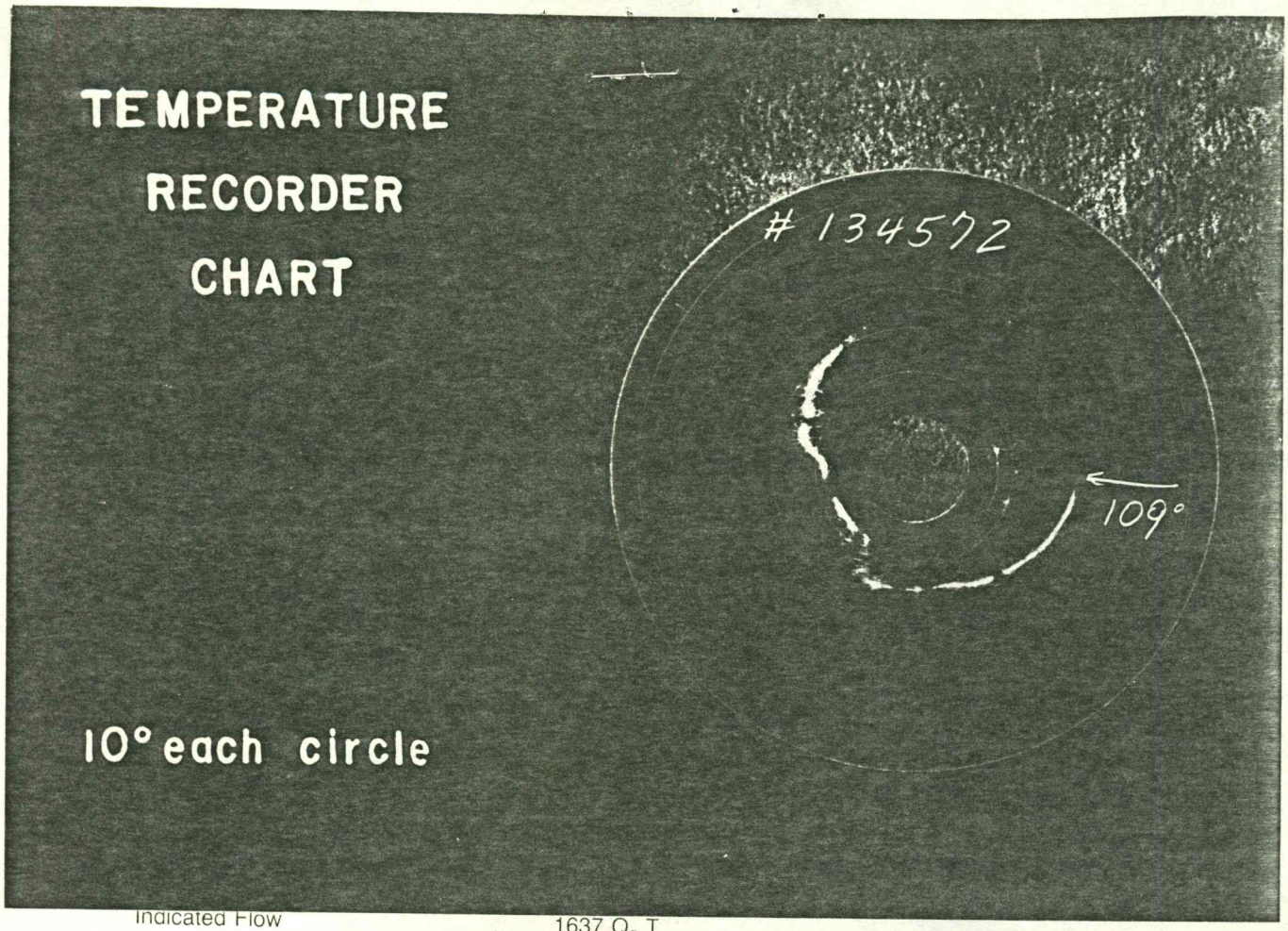
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
1430					CALLED OUT
1500					ON LOCATION, RIG PULLED DRILL
					PIPE
1555					PICKED UP & MADE UP TOOL
1607					TOOL IN TABLE, READY
1620					TOOL THROUGH TABLE
1723	*				TOOL OPENED WITH A WEAK BLOW
					AT SURFACE THAT DIED AT
					SURFACE
1753					TOOL CLOSED
1823					TOOL OPENED WITH NO BLOW
1853					TOOL CLOSED
1923					TOOL OFF BOTTOM
2025					TOOL IN TABLE
2055					TOOL LAID DOWN
2130					JOB COMPLETED
					* .25" BUBBLE HOSE.

TICKET NO. 13457200



		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3740.0	
50	IMPACT REVERSING SUB.....	5.750	2.750	1.0	3740.8
1	DRILL PIPE.....	4.500	3.826	125.0	
12	DUAL CIP VALVE.....	5.030	0.870	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	3869.0
80	AP RUNNING CASE.....	5.000	2.250	4.1	3871.5
16	VR SAFETY JOINT.....	5.000	1.000	2.8	
70	OPEN HOLE PACKER.....	6.750	1.530	5.8	3881.8
20	FLUSH JOINT ANCHOR.....	5.000	2.370	25.0	
83	HT-500 TEMPERATURE CASE.....	5.000	2.250	1.5	3909.0
81	BLANKED-OFF RUNNING CASE.....	5.000	2.440	4.1	3911.5
	TOTAL DEPTH				3914.0

EQUIPMENT DATA



Indicated Flow Capacity	$kh = \frac{1637\ Q_g\ T}{m}$	md-ft
Average Effective Permeability	$k = \frac{kh}{h}$	md
Skin Factor	$S = 1.151 \left[\frac{m(P^*) - m(P_f)}{m} - \text{LOG} \frac{kt}{\phi\ \mu\ c_t r_w^2} + 3.23 \right]$	—
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	$r_i = 0.032 \sqrt{\frac{kt}{\phi \mu c_t}}$	ft