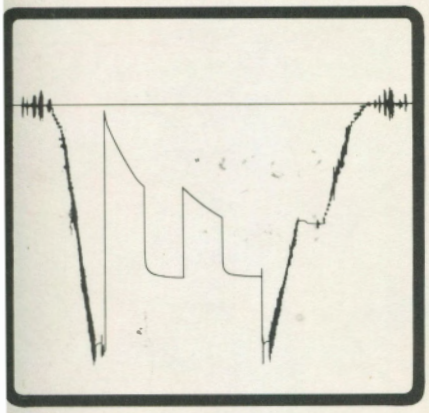
FORMATION TESTING SERVICE REPORT



HALLIBURTON SERVICES

Duncan, Oklahoma 73536

A Halliburton Company

JUL 1 1982

GARRETT	2	1	3680.' - 3725.'
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL

RUPE OIL COMPANY

LEASE OWNER/COMPANY NAME

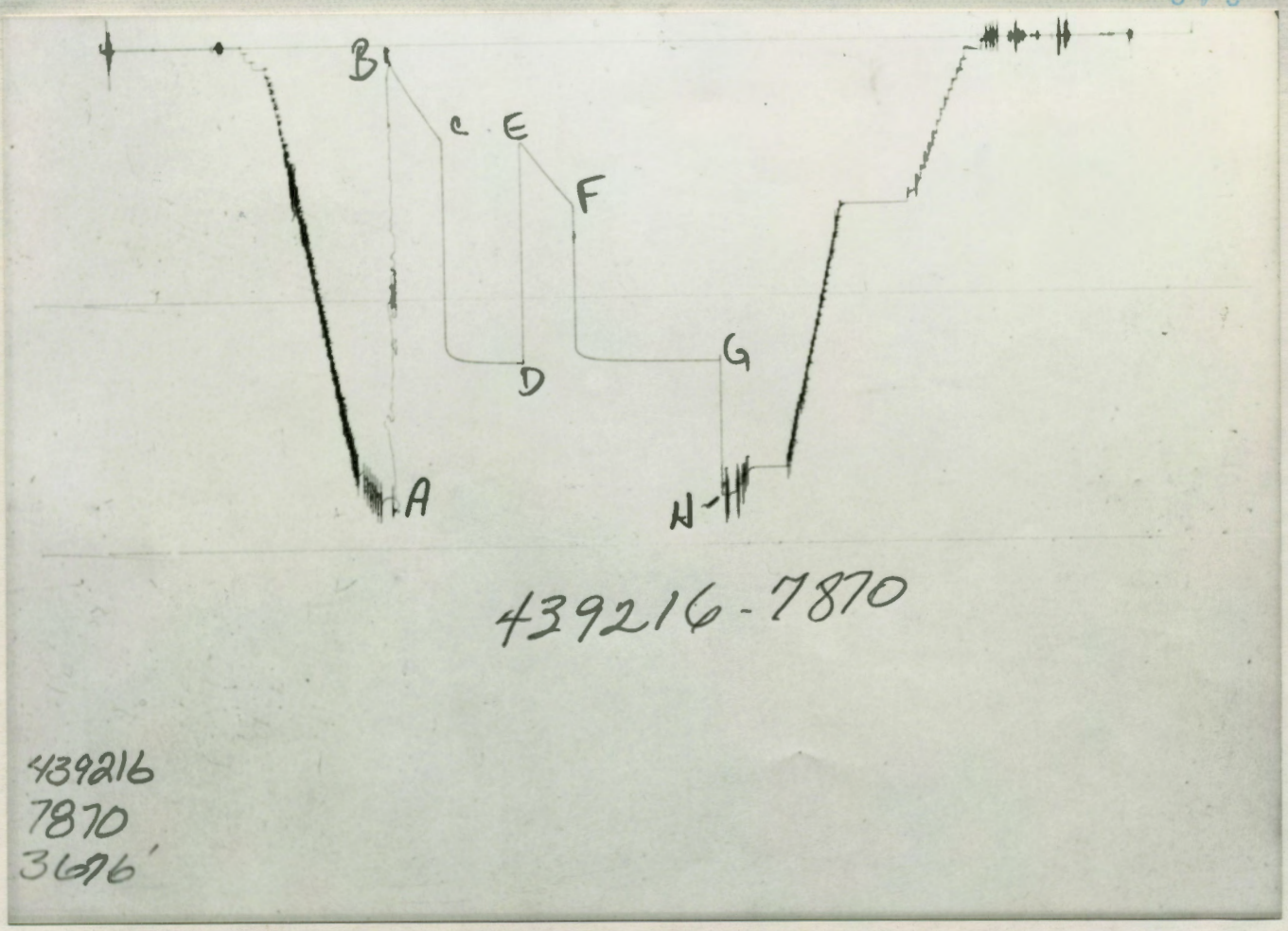
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
GARRETT	2	1	3680.' - 3725.'	RUPE OIL COMPANY

LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE	
8 11S 24W	WEST OF WAKENNY	TREGO	KANSAS	I/J

HALLIBURTON
SERVICES

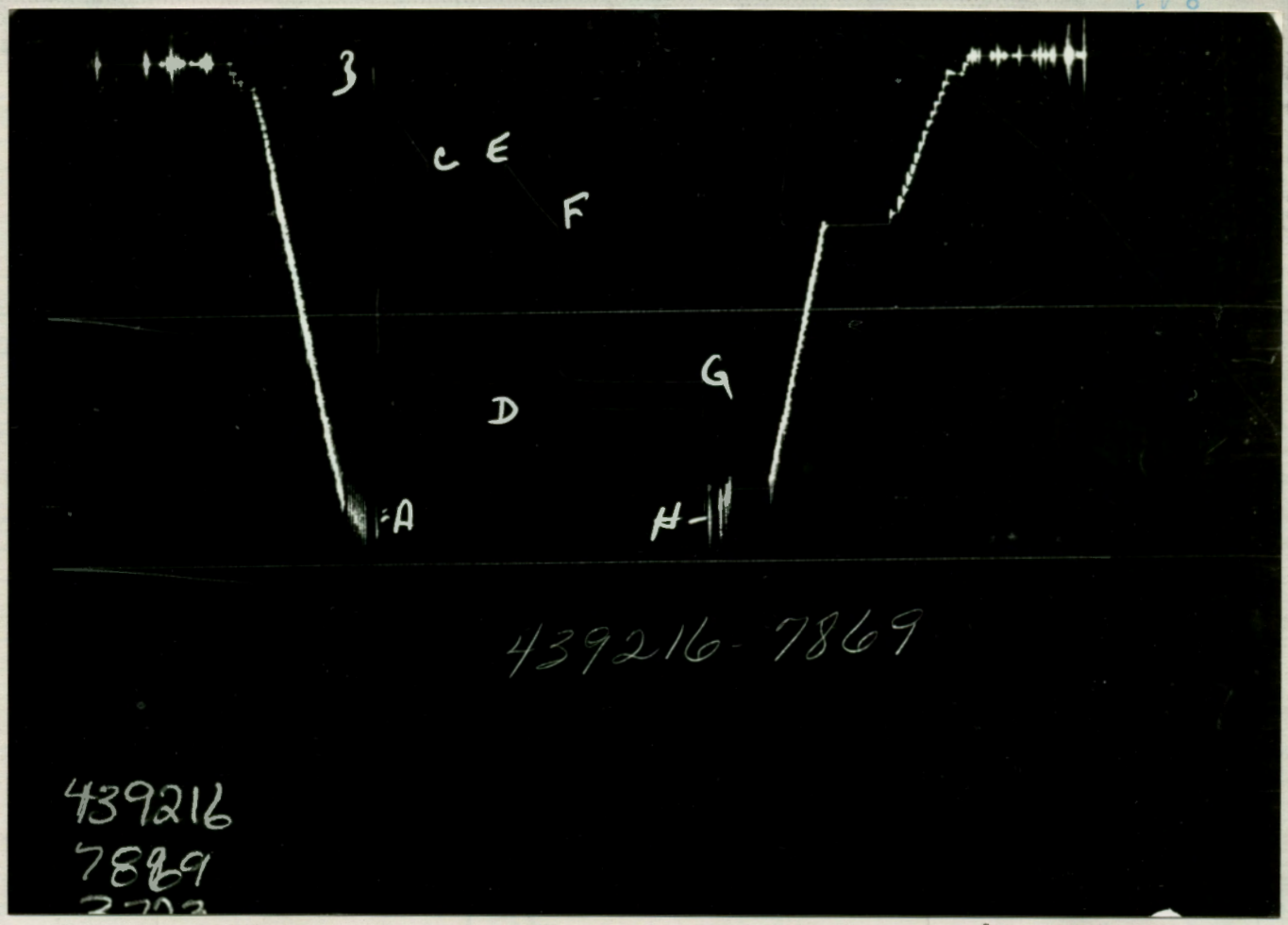
TICKET NO. 43921600
22-JUN-82
HAYS

FORMATION TESTING SERVICE REPORT



GAUGE NO: 7870 DEPTH: 3676.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1811.1			
B	INITIAL FIRST FLOW		18.3	30.0	31.5	F
C	FINAL FIRST FLOW		388.2			
C	INITIAL FIRST CLOSED-IN		388.2	45.0	46.6	C
D	FINAL FIRST CLOSED-IN		1278.1			
E	INITIAL SECOND FLOW		396.4	30.0	31.1	F
F	FINAL SECOND FLOW		650.4			
F	INITIAL SECOND CLOSED-IN		650.4	90.0	85.8	C
G	FINAL SECOND CLOSED-IN		1278.3			
H	FINAL HYDROSTATIC		1807.0			



GAUGE NO: 7869 DEPTH: 3722.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1830.2			
B	INITIAL FIRST FLOW		41.3	30.0	31.5	F
C	FINAL FIRST FLOW		404.7			
C	INITIAL FIRST CLOSED-IN		404.7	45.0	46.6	C
D	FINAL FIRST CLOSED-IN		1295.8			
E	INITIAL SECOND FLOW		418.7	30.0	31.1	F
F	FINAL SECOND FLOW		667.9			
F	INITIAL SECOND CLOSED-IN		667.9	90.0	85.8	C
G	FINAL SECOND CLOSED-IN		1296.4			
H	FINAL HYDROSTATIC		1825.0			

EQUIPMENT & HOLE DATA

FORMATION TESTED: _____
NET PAY (ft): 4.0
GROSS TESTED FOOTAGE: 45.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft): _____
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 2319
TOTAL DEPTH (ft): 3725.0
PACKER DEPTH(S) (ft): 3680
FINAL SURFACE CHOKE (in): 0.250
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.20
MUD VISCOSITY (sec): 33
ESTIMATED HOLE TEMP. (°F): _____
ACTUAL HOLE TEMP. (°F): 106 @ 3720.0 ft

TICKET NUMBER: 43921600

DATE: 6-15-82 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: HAYS

TESTER: D. MORGAN

WITNESS: JIM CHRISLER

DRILLING CONTRACTOR: KANDRILL COMPANY #1

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:

372 FEET OF GASSY OIL CUT MUDDY WATER.
434 FEET OF GASSY OIL CUT WATER.
558 FEET OF GASSY WATER.
1364 FEET OF TOTAL RECOVERY.

MEASURED FROM TESTER VALVE

REMARKS:

TYPE & SIZE MEASURING DEVICE: _____ TICKET NO: 43921600

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
2200					CALLED OUT.
0306					ON LOCATION, RIG OUT OF HOLE.
0400					MADE UP AND PICKED UP TOOL.
0420					TOOL IN TABLE.
0430					TOOL STARTED DOWN HOLE
0607					TOOL ON BOTTOM.
0610					TOOL OPENED WITH 12" BLOW IN
					3 MINUTES.
0640					TOOL CLOSED.
0725					TOOL OPENED WITH 12" BLOW IN 2
					MINUTES.
0755					TOOL CLOSED.
0925					TOOL OFF BOTTOM.
1005					TOOL STARTED UP HOLE.
1200					TOOL IN TABLE.
1330					TOOL LAID DOWN.

TICKET NO: 43921600	GAUGE NO: 7870
CLOCK NO: 17421 HOUR: 12	DEPTH: 3676.0

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	18.3			
	2	5.0	110.2	91.9		
	3	10.0	167.2	57.0		
	4	15.0	222.4	55.2		
	5	20.0	270.4	48.0		
	6	25.0	324.1	53.7		
	7	30.0	370.6	46.5		
C	8	31.5	388.2	17.7		
		FIRST CLOSED-IN				
C	1	0.0	388.2			
	2	1.0	1229.7	841.5	0.9	1.522
	3	2.0	1238.8	850.6	1.8	1.234
	4	3.0	1244.6	856.4	2.8	1.057
	5	4.0	1249.3	861.1	3.6	0.945
	6	5.0	1253.8	865.6	4.3	0.861
	7	6.0	1256.2	868.0	5.0	0.799
	8	7.0	1258.8	870.5	5.7	0.741
	9	8.0	1261.1	872.9	6.4	0.694
	10	9.0	1263.0	874.8	7.0	0.652
	11	10.0	1264.6	876.3	7.6	0.619
	12	15.0	1269.4	881.2	10.2	0.491
	13	20.0	1271.8	883.5	12.2	0.411
	14	25.0	1274.4	886.2	13.9	0.355
	15	30.0	1275.7	887.5	15.4	0.312
	16	35.0	1276.5	888.3	16.6	0.279
	17	40.0	1277.1	888.8	17.6	0.252
D	18	46.6	1278.1	889.9	18.8	0.224
		SECOND FLOW				
E	1	0.0	396.4			
	2	5.0	427.8	31.4		
	3	10.0	472.9	45.0		
	4	15.0	516.8	44.0		
	5	20.0	559.1	42.2		
	6	25.0	599.7	40.6		
	7	30.0	639.5	39.8		
F	8	31.1	650.4	10.9		
		SECOND CLOSED-IN				
F	1	0.0	650.4			
	2	1.0	1236.0	585.6	1.0	1.803
	3	2.0	1243.1	592.7	2.0	1.503
	4	3.0	1248.5	598.1	2.9	1.341
	5	4.0	1252.4	602.0	3.8	1.222
	6	5.0	1255.1	604.7	4.6	1.134

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
		SECOND CLOSED-IN - CONTINUED				
	7	6.0	1258.1	607.7	5.4	1.061
	8	7.0	1259.4	609.0	6.3	0.998
	9	8.0	1261.1	610.7	7.1	0.948
	10	9.0	1263.0	612.6	7.9	0.901
	11	10.0	1264.2	613.8	8.6	0.862
	12	15.0	1268.7	618.3	12.1	0.714
	13	20.0	1271.3	620.9	15.1	0.617
	14	25.0	1272.8	622.4	17.9	0.545
	15	30.0	1273.9	623.5	20.3	0.490
	16	35.0	1274.8	624.4	22.5	0.445
	17	45.0	1276.0	625.6	26.2	0.379
	18	55.0	1277.0	626.6	29.3	0.330
	19	65.0	1277.4	627.0	31.9	0.293
	20	75.0	1277.5	627.1	34.1	0.264
G	21	85.8	1278.3	628.0	36.2	0.238

REMARKS:

TICKET NO: 43921600

CLOCK NO: 14720 HOUR: 12

HALLIBURTON SERVICES

GAUGE NO: 7869

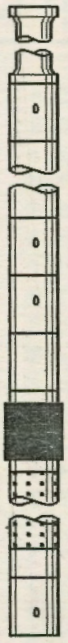
DEPTH: 3722.0

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	41.3			
	2	5.0	135.7	94.4		
	3	10.0	191.0	55.3		
	4	15.0	243.2	52.3		
	5	20.0	294.5	51.3		
	6	25.0	342.2	47.7		
	7	30.0	391.7	49.5		
C	8	31.5	404.7	13.0		
			FIRST CLOSED-IN			
C	1	0.0	404.7			
	2	1.0	1249.6	844.9	1.0	1.495
	3	2.0	1258.0	853.3	1.9	1.222
	4	3.0	1264.3	859.6	2.7	1.064
	5	4.0	1269.6	865.0	3.6	0.948
	6	5.0	1273.4	868.7	4.3	0.866
	7	6.0	1275.8	871.1	5.0	0.797
	8	7.0	1278.4	873.7	5.7	0.743
	9	8.0	1280.7	876.0	6.4	0.693
	10	9.0	1282.2	877.5	7.0	0.654
	11	10.0	1283.8	879.1	7.6	0.619
	12	15.0	1288.8	884.1	10.2	0.491
	13	20.0	1291.4	886.7	12.2	0.411
	14	25.0	1293.1	888.4	13.9	0.354
	15	30.0	1294.4	889.7	15.4	0.312
	16	35.0	1295.1	890.4	16.6	0.279
	17	40.0	1295.7	891.0	17.6	0.253
D	18	46.6	1295.8	891.1	18.8	0.224
			SECOND FLOW			
E	1	0.0	418.7			
	2	5.0	456.5	37.8		
	3	10.0	501.1	44.6		
	4	15.0	545.0	44.0		
	5	20.0	586.3	41.2		
	6	25.0	623.9	37.6		
	7	30.0	660.5	36.6		
F	8	31.1	667.9	7.4		
			SECOND CLOSED-IN			
F	1	0.0	667.9			
	2	1.0	1255.7	587.8	1.0	1.805
	3	2.0	1263.0	595.1	1.9	1.511
	4	3.0	1267.8	599.9	2.9	1.341
	5	4.0	1271.0	603.1	3.7	1.226
	6	5.0	1274.4	606.5	4.6	1.132

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log\frac{t+\Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	7	6.0	1277.0	609.1	5.5	1.059
	8	7.0	1278.6	610.7	6.3	0.998
	9	8.0	1280.5	612.6	7.1	0.947
	10	9.0	1282.1	614.2	7.8	0.903
	11	10.0	1283.1	615.2	8.6	0.862
	12	15.0	1287.3	619.4	12.1	0.715
	13	20.0	1290.1	622.2	15.1	0.617
	14	25.0	1291.6	623.7	17.9	0.545
	15	30.0	1292.7	624.8	20.3	0.489
	16	35.0	1293.5	625.6	22.5	0.445
	17	45.0	1294.4	626.5	26.2	0.379
	18	55.0	1295.2	627.3	29.3	0.330
	19	65.0	1295.5	627.6	31.9	0.293
	20	75.0	1296.1	628.2	34.1	0.264
G	21	85.8	1296.4	628.5	36.2	0.238

REMARKS:

TICKET NO. 43921600



		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3483.0	
50	IMPACT REVERSING SUB.....	5.750	3.750	1.0	3483.0
3	DRILL COLLARS.....	5.000	3.700	180.0	
12	DUAL CIP VALVE.....	5.000	0.870	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	3674.0
80	AP RUNNING CASE.....	5.000	3.060	4.0	3676.0
70	OPEN HOLE PACKER.....	6.750	1.530	4.0	3680.0
20	FLUSH JOINT ANCHOR.....	5.000	3.840	38.0	
83	HT-500 TEMPERATURE CASE.....	5.000	3.750	1.5	3720.0
81	BLANKED-OFF RUNNING CASE.....	5.000	2.440	4.0	3722.0
	TOTAL DEPTH				3725.0

EQUIPMENT DATA

D.S.T. Report Distribution

HALLIBURTON
SERVICES

A Division of Halliburton Company

FORM 1509R3 **DUNCAN, OKLAHOMA 73533**

Rupe Oil Co.
Company Name - - Lease Owner

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

for Ticket No. 439216

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

Company Orig. Chart: Rupe Oil Co.
ATT.
[S] & Reports
P.O. BOX / STREET & NO. / BUILDING: P.O. Box 2275 43406
CITY / STATE: Wichita KS
ZIP CODE NUMBER: 67201

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 Tommie T. Crisler, Agent

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

(Use Additional Sheets When Necessary)

W 439216 - 7870 (5)

RECORDING PRESSURE GAUGE CHART

Ticket No. 439216 Date 6-15-82

Company Rupe oil co.

Lease Garrett Well No. 2

FIELD READINGS

Device No. 7870		12 Hr. Clock No. 17421	
B.T. Gauge Depth 3676 Ft.		Estimated Gauge Depth Temperature 106 °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 David Morgan

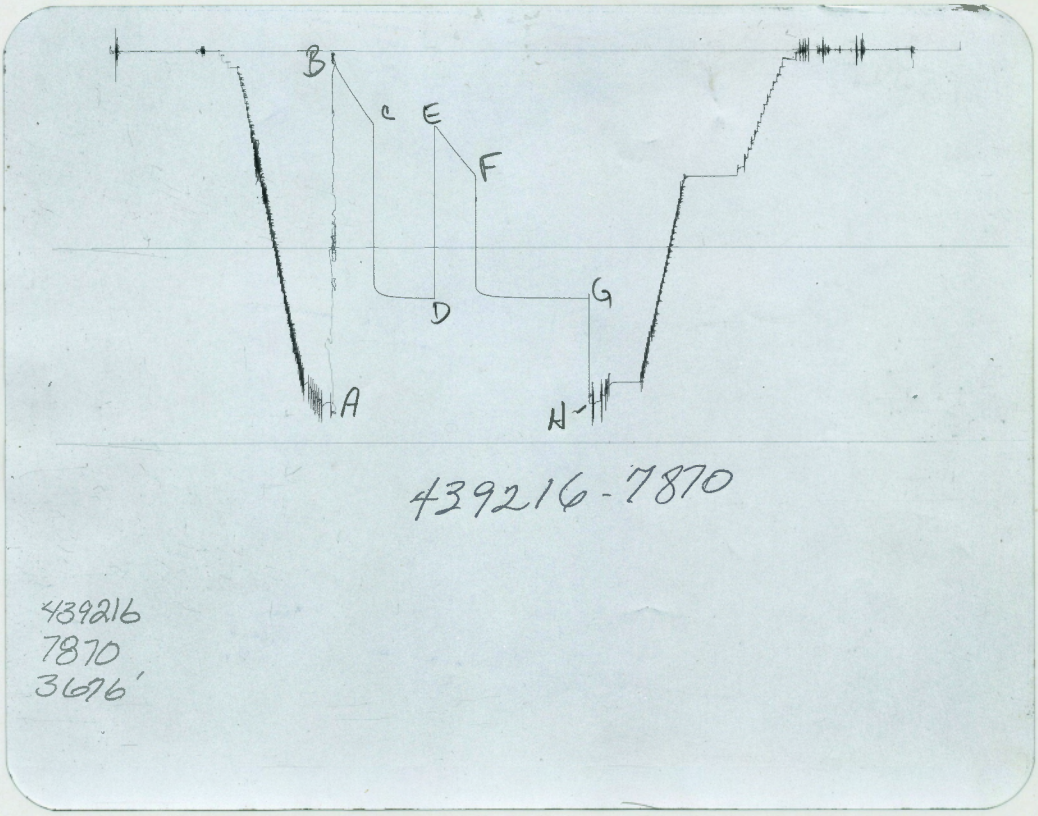
Form 892-R5
Printed in U.S.A.

HALLIBURTON SERVICES

A Halliburton Company

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

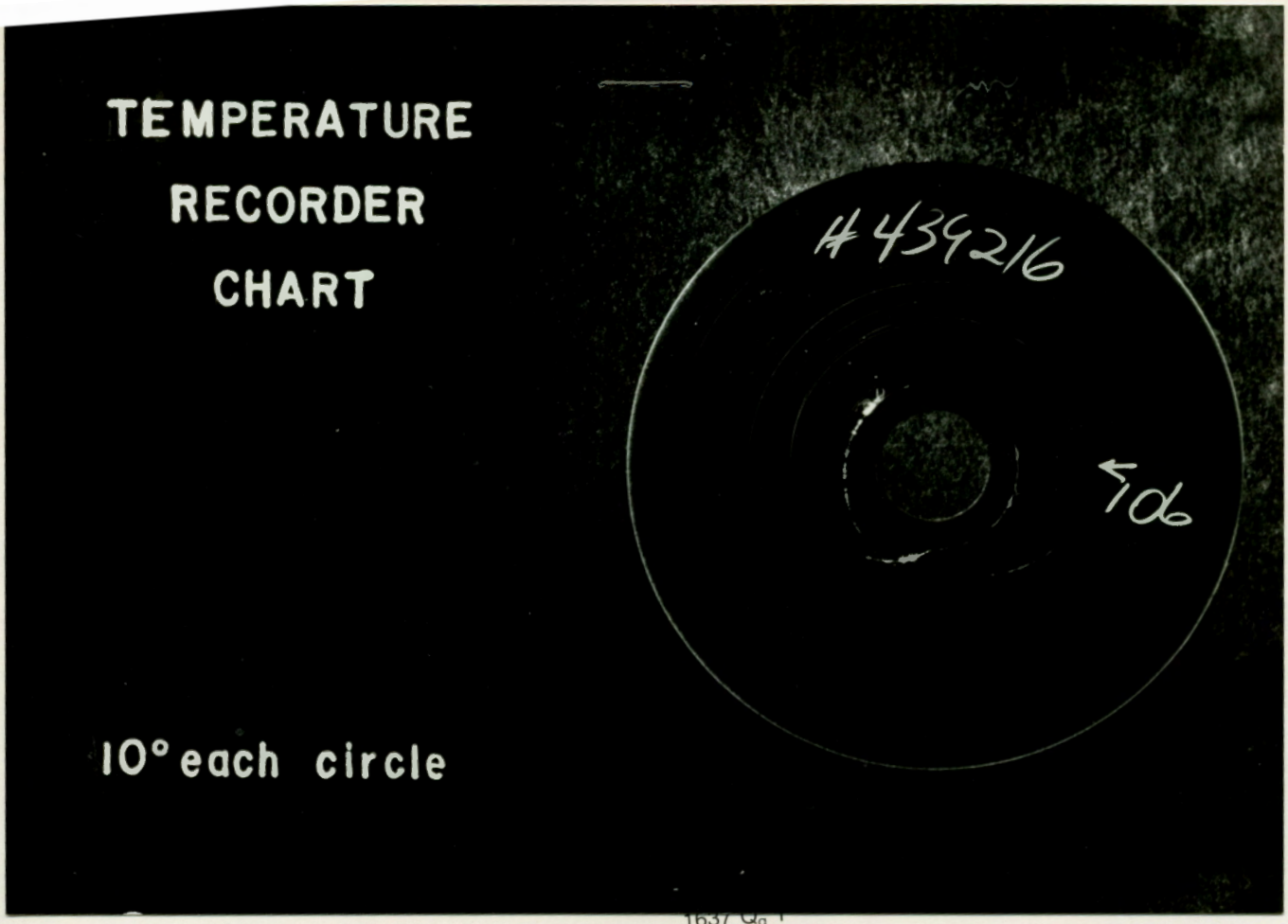
81-2882



439216-7870

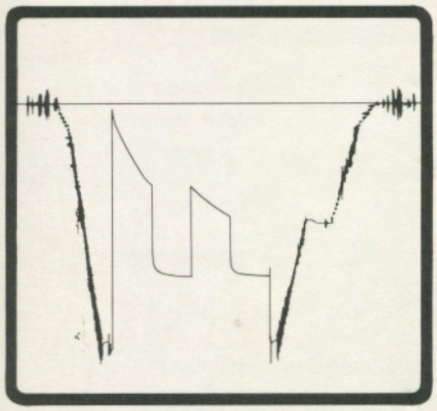
439216
7870
3696'

C



Indicated Flow Capacity	$kh = \frac{1637\ Q_g\ T}{m}$	md
Average Effective Permeability	$k = \frac{kh}{h}$	
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

FORMATION TESTING SERVICE REPORT



HALLIBURTON SERVICES

Duncan, Oklahoma 73536

A Halliburton Company

JUL 1 1982

GARRETT — LEASE NAME

2 — WELL NO.

2 — TEST NO.

3793.' - 3860.' — TESTED INTERVAL

RUPE OIL COMPANY — LEASE OWNER/COMPANY NAME

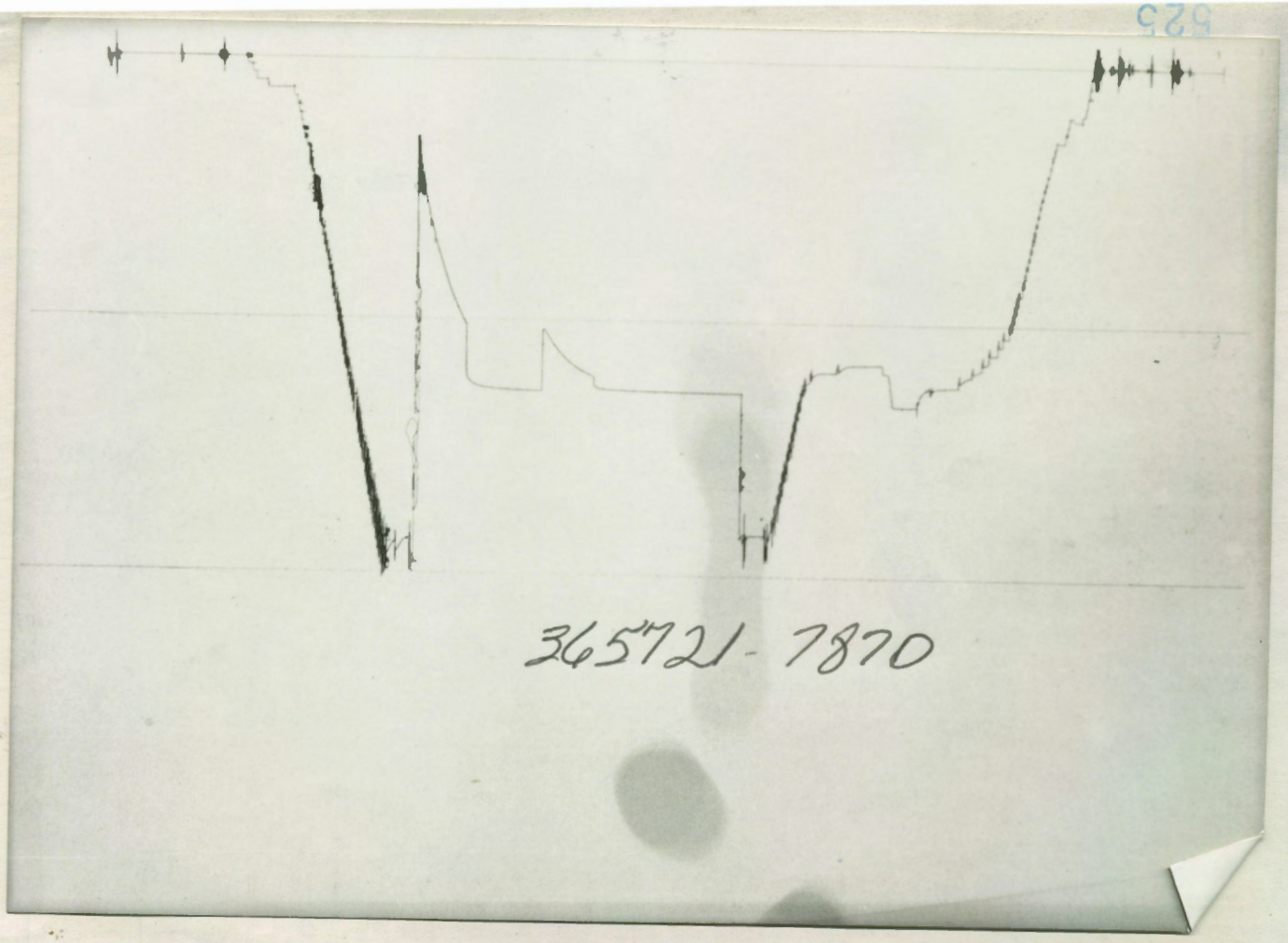
GARRETT	2	2	3793.' - 3860.'	RUPE OIL COMPANY
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME

LEGAL LOCATION SEC. - TWP. - RNG.	8-11S-24W	FIELD AREA	NORTH OF WAKEENEY	COUNTY	TREGO	STATE	KANSAS	IC

HALLIBURTON SERVICES

TICKET NO. 36572100
23-JUN-82
HAYS

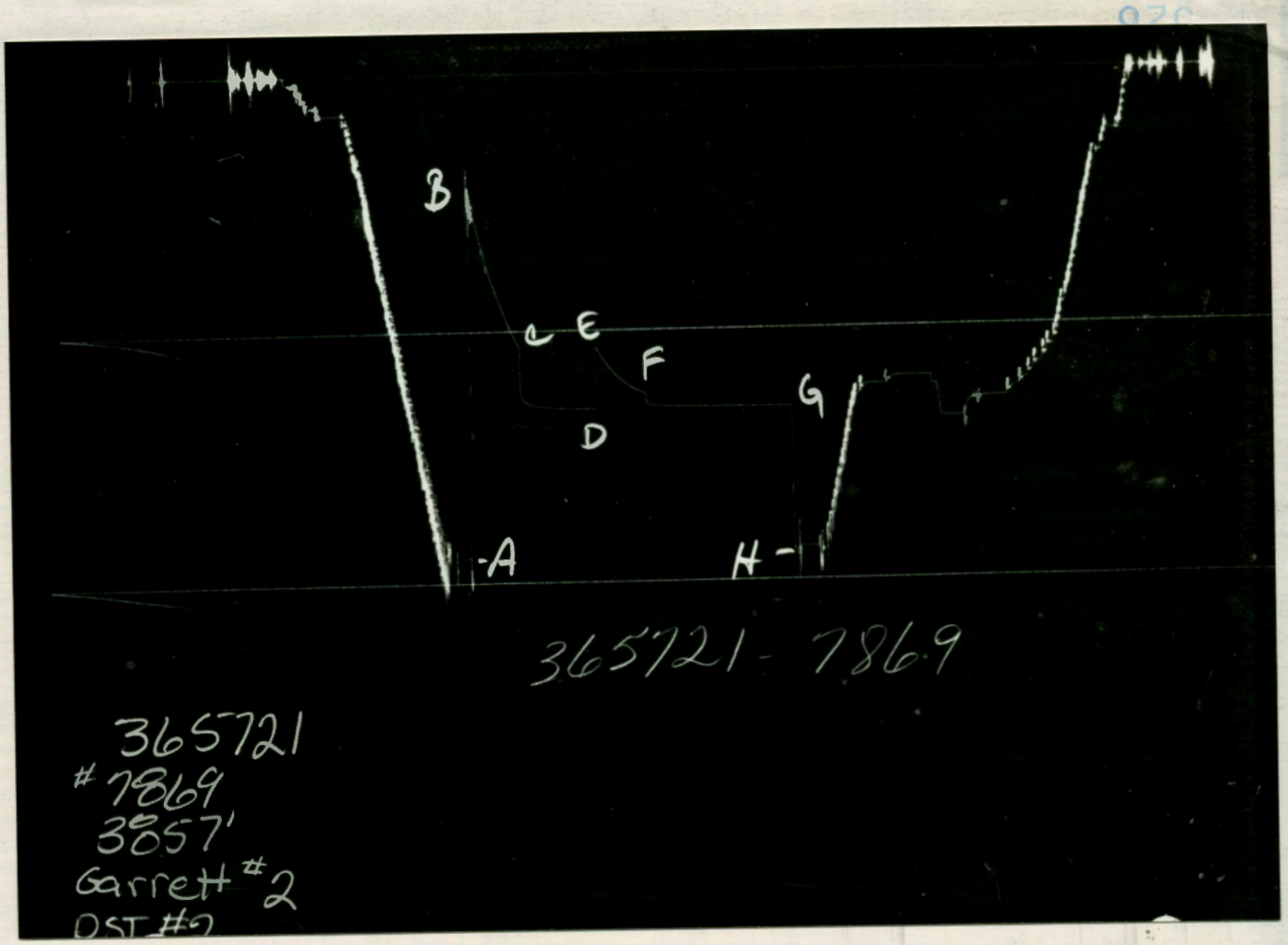
FORMATION TESTING SERVICE REPORT



365721-7870

GAUGE NO: 7870 DEPTH: 3788.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1882.0			
B	INITIAL FIRST FLOW		305.1	30.0	30.1	F
C	FINAL FIRST FLOW		1040.2			
C	INITIAL FIRST CLOSED-IN		1040.2	45.0	45.5	C
D	FINAL FIRST CLOSED-IN		1297.0			
E	INITIAL SECOND FLOW		1053.1	30.0	31.0	F
F	FINAL SECOND FLOW		1238.6			
F	INITIAL SECOND CLOSED-IN		1238.6	90.0	88.4	C
G	FINAL SECOND CLOSED-IN		1298.0			
H	FINAL HYDROSTATIC		1862.2			



GAUGE NO: 7869 DEPTH: 3857.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1916.1			
B	INITIAL FIRST FLOW		369.3	30.0	30.1	F
C	FINAL FIRST FLOW		1077.9			
C	INITIAL FIRST CLOSED-IN		1077.9	45.0	45.5	C
D	FINAL FIRST CLOSED-IN		1327.4			
E	INITIAL SECOND FLOW		1084.2	30.0	31.0	F
F	FINAL SECOND FLOW		1269.4			
F	INITIAL SECOND CLOSED-IN		1269.4	90.0	88.4	C
G	FINAL SECOND CLOSED-IN		1327.5			
H	FINAL HYDROSTATIC		1895.0			

627

EQUIPMENT & HOLE DATA

FORMATION TESTED: KANSAS CITY, H-I-J
NET PAY (ft): 5.0
GROSS TESTED FOOTAGE: 67.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 2329
TOTAL DEPTH (ft): 3860.0
PACKER DEPTH(S) (ft): 3793
FINAL SURFACE CHOKE (in): 0.250
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.50
MUD VISCOSITY (sec): 42
ESTIMATED HOLE TEMP. (°F):
ACTUAL HOLE TEMP. (°F): 108 @ 3855.0 ft

TICKET NUMBER: 36572100

DATE: 6-16-82 TEST NO: 2

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: HAYS

TESTER: KELLY R. SCHMEIDLER

WITNESS: JIM CRISLER

DRILLING CONTRACTOR: KANDRILCO #1

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:

2778 FEET OF GASSY OIL CUT MUDDY WATER

MEASURED FROM TESTER VALVE

REMARKS:

GRINDOUT
TOP SAMPLE: 40% GAS, 20% OIL, 10% WATER, 30% MUD
2ND SAMPLE: 43% OIL, 40% WATER, 17% MUD
BOTTOM SAMPLE: 3% OIL, 53% WATER, 44% MUD

TYPE & SIZE MEASURING DEVICE: _____ | TICKET NO: 36572100

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
1730					CALLED OUT
2050					ON LOCATION-STARTED OUT WITH
					DRILL PIPE
2155					PICKED UP TOOL
2225					TOOL IN TABLE
0018					TOOL ON BOTTOM
0020					OPENED TOOL WITH A STRONG BLOW
					OFF BOTTOM OF BUCKET IN 1.5
					MINUTES
0050					CLOSED TOOL
0135					OPENED TOOL WITH A STRONG BLOW
					OFF BOTTOM OF BUCKET IMMEDIATELY
0205					CLOSED TOOL
0335					OFF BOTTOM

TICKET NO: 36572100

CLOCK NO: 17421 HOUR: 12

HALLIBURTON SERVICES

GAUGE NO: 7870

DEPTH: 3788.0

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	305.1			
	2	5.0	538.6	233.5		
	3	10.0	676.6	138.0		
	4	15.0	795.8	119.2		
	5	20.0	895.3	99.5		
	6	25.0	974.4	79.1		
C	7	30.1	1040.2	65.7		
			FIRST CLOSED-IN			
C	1	0.0	1040.2			
	2	1.0	1249.6	209.4	0.9	1.505
	3	2.0	1259.0	218.8	1.8	1.214
	4	3.0	1265.0	224.8	2.7	1.046
	5	4.0	1270.0	229.8	3.6	0.927
	6	5.0	1273.4	233.3	4.3	0.846
	7	6.0	1276.2	236.0	5.0	0.781
	8	7.0	1278.2	238.1	5.7	0.726
	9	8.0	1280.1	240.0	6.3	0.679
	10	9.0	1282.0	241.8	6.9	0.638
	11	10.0	1283.6	243.4	7.5	0.603
	12	15.0	1288.1	247.9	10.0	0.479
	13	20.0	1291.1	251.0	12.0	0.399
	14	25.0	1293.1	253.0	13.6	0.344
	15	30.0	1294.6	254.4	15.0	0.302
	16	35.0	1295.9	255.7	16.2	0.270
	17	40.0	1296.7	256.5	17.2	0.244
D	18	45.5	1297.0	256.9	18.1	0.221
			SECOND FLOW			
E	1	0.0	1053.1			
	2	5.0	1092.2	39.2		
	3	10.0	1139.9	47.6		
	4	15.0	1173.6	33.8		
	5	20.0	1199.5	25.9		
	6	25.0	1218.8	19.3		
F	7	31.0	1238.6	19.8		
			SECOND CLOSED-IN			
F	1	0.0	1238.6			
	2	1.0	1277.3	38.7	1.0	1.808
	3	2.0	1281.1	42.5	1.9	1.501
	4	3.0	1284.3	45.7	2.9	1.325
	5	4.0	1286.0	47.4	3.8	1.210
	6	5.0	1286.8	48.2	4.6	1.125
	7	6.0	1287.7	49.1	5.4	1.051
	8	7.0	1288.3	49.7	6.2	0.990

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	9	8.0	1288.6	50.0	7.0	0.939
	10	9.0	1289.0	50.4	7.8	0.894
	11	10.0	1289.5	50.9	8.6	0.852
	12	15.0	1290.6	52.1	12.0	0.706
	13	20.0	1291.9	53.3	15.1	0.608
	14	30.0	1293.5	54.9	20.1	0.482
	15	40.0	1294.8	56.2	24.2	0.403
	16	50.0	1295.5	56.9	27.5	0.347
	17	60.0	1296.1	57.5	30.3	0.305
	18	70.0	1296.8	58.2	32.6	0.272
	19	80.0	1297.1	58.6	34.6	0.247
G	20	88.4	1298.0	59.4	36.1	0.228

REMARKS:

TICKET NO: 36572100

CLOCK NO: 17420 HOUR: 12

HALLIBURTON SERVICES

GAUGE NO: 7869

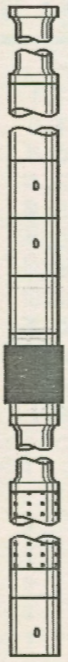
DEPTH: 3857.0

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	369.3			
	2	5.0	590.1	220.8		
	3	10.0	729.0	138.9		
	4	15.0	837.4	108.4		
	5	20.0	931.2	93.9		
	6	25.0	1012.5	81.2		
C	7	30.1	1077.9	65.5		
			FIRST CLOSED-IN			
C	1	0.0	1077.9			
	2	1.0	1280.4	202.5	1.0	1.491
	3	2.0	1290.0	212.1	1.8	1.216
	4	3.0	1296.2	218.3	2.7	1.045
	5	4.0	1300.8	222.9	3.5	0.930
	6	5.0	1303.9	226.0	4.3	0.849
	7	6.0	1306.7	228.8	5.0	0.782
	8	7.0	1309.3	231.4	5.7	0.725
	9	8.0	1311.0	233.1	6.3	0.679
	10	9.0	1313.0	235.1	7.0	0.636
	11	10.0	1314.1	236.2	7.5	0.603
	12	15.0	1318.4	240.5	10.0	0.479
	13	20.0	1321.7	243.8	12.0	0.399
	14	25.0	1323.3	245.4	13.6	0.344
	15	30.0	1325.1	247.2	15.0	0.302
	16	35.0	1325.8	247.9	16.2	0.270
	17	40.0	1326.8	248.8	17.2	0.244
D	18	45.5	1327.4	249.5	18.1	0.221
			SECOND FLOW			
E	1	0.0	1084.2			
	2	5.0	1126.7	42.4		
	3	10.0	1172.2	45.5		
	4	15.0	1205.6	33.5		
	5	20.0	1231.6	26.0		
	6	25.0	1251.5	19.8		
F	7	31.0	1269.4	17.9		
			SECOND CLOSED-IN			
F	1	0.0	1269.4			
	2	1.0	1310.3	41.0	1.0	1.791
	3	2.0	1313.9	44.6	2.0	1.494
	4	3.0	1315.7	46.3	2.8	1.334
	5	4.0	1317.0	47.7	3.7	1.214
	6	5.0	1317.4	48.1	4.6	1.124
	7	6.0	1318.0	48.6	5.5	1.046
	8	7.0	1319.2	49.8	6.3	0.988

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	9	8.0	1319.6	50.2	7.1	0.935
	10	9.0	1319.9	50.6	7.8	0.892
	11	10.0	1319.9	50.6	8.6	0.853
	12	15.0	1320.9	51.6	12.1	0.704
	13	20.0	1321.8	52.4	15.1	0.608
	14	30.0	1323.3	54.0	20.1	0.482
	15	40.0	1324.5	55.2	24.2	0.403
	16	50.0	1325.8	56.4	27.5	0.347
	17	60.0	1326.2	56.8	30.3	0.305
	18	70.0	1326.8	57.4	32.6	0.272
	19	80.0	1327.1	57.8	34.6	0.247
G	20	88.4	1327.5	58.2	36.1	0.228

REMARKS:

TICKET NO. 36572100



		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3590.0	
3	DRILL COLLARS.....	6.000	2.250	186.0	
12	DUAL CIP VALVE.....	5.000	0.870	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	3786.0
80	AP RUNNING CASE.....	5.000	3.060	4.0	3788.0
70	OPEN HOLE PACKER.....	6.750	1.530	4.0	3793.0
1	DRILL PIPE.....	4.500	3.826	31.0	
20	FLUSH JOINT ANCHOR.....	5.000	3.840	29.0	
83	HT-500 TEMPERATURE CASE.....	5.000	3.750	1.5	3855.0
81	BLANKED-OFF RUNNING CASE.....	5.000	2.440	4.0	3857.0
	TOTAL DEPTH				3860.0

EQUIPMENT DATA

D.S.T. Report Distribution

HALLIBURTON
SERVICES

A Division of Halliburton Company

FORM 1509R3

DUNCAN, OKLAHOMA 73533

Rupe Oil Company Inc.

Company Name - - Lease Owner

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

for Ticket No. 365721

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

Company Orig. Chart: Rupe Oil Co. Inc.

5 & Reports

ATT.

P.O. BOX / STREET & NO. / BUILDING: Box 2275 434 OHIO

CITY / STATE: Wichita Ks.

ZIP CODE NUMBER: 67201

Company

( ) Reports

ATT.

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

CITY / STATE

ZIP CODE NUMBER

( ) Reports

ATT.

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

CITY / STATE

ZIP CODE NUMBER

Company

( ) Reports

ATT.

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

CITY / STATE

ZIP CODE NUMBER

Company

( ) Reports

ATT.

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

CITY / STATE

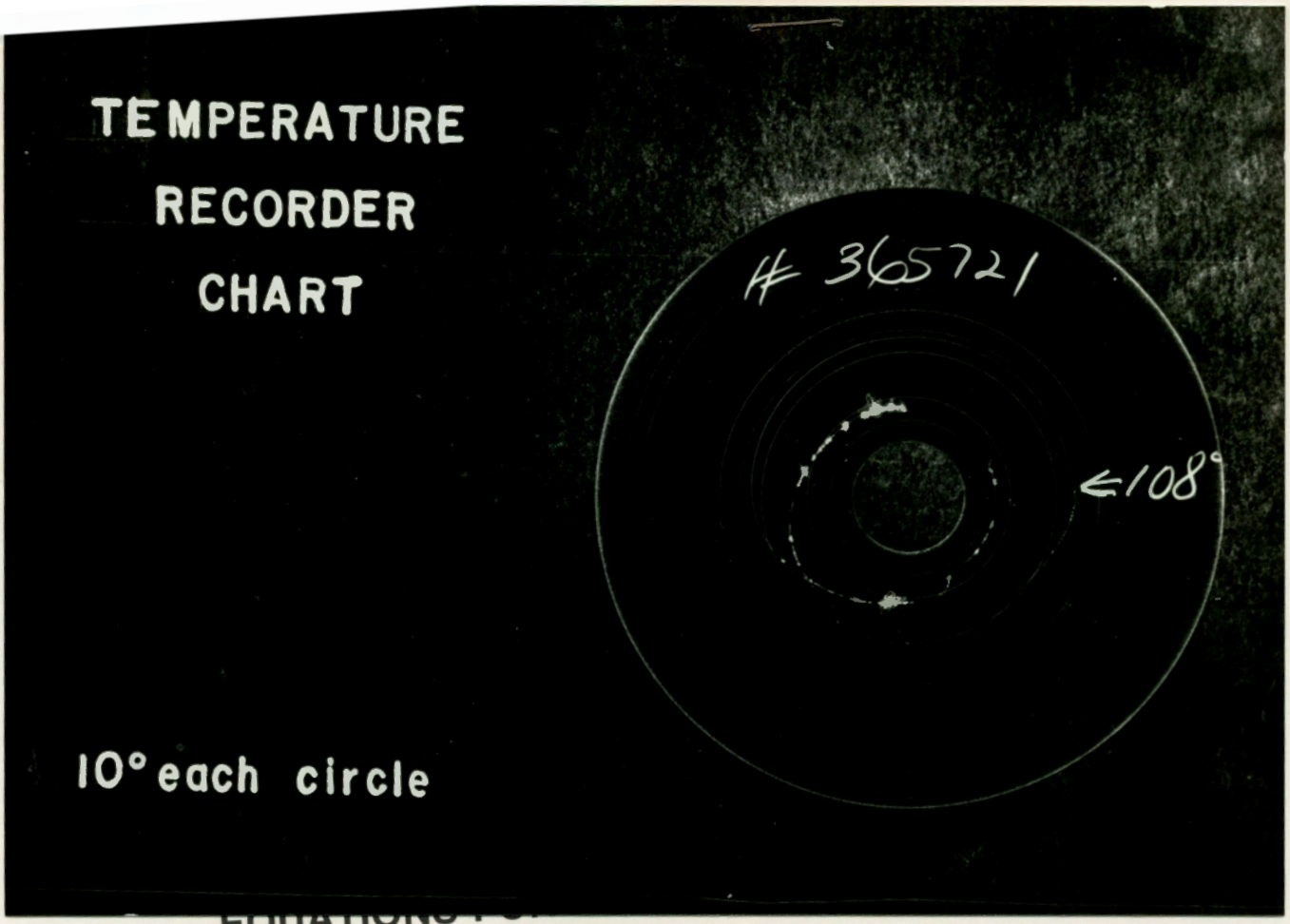
ZIP CODE NUMBER

Owner - Operator - or His Agent

SIGNED James E. Crisler, Agent

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

(Use Additional Sheets When Necessary)



EQUATIONS FOR

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

W

365721 – 7870 (5)

RECORDING PRESSURE GAUGE CHART

Ticket No. 365721 Date 6-16-82

Company Rupe Oil Co

Lease GARRETT Well No. 2

FIELD READINGS

DST-2

Device No. 7870		12 Hr. Clock No. 17421	
B.T. Gauge Depth 3788 Ft.		Estimated Gauge Depth Temperature 114 °F	
		Thousands of Inch	Pressure P.S.I.
Initial Hydro. Mud Pressure		1.900	1878
1st	Initial Flow Pressure	.300	300
	Final Flow Pressure	1.020	1011
	First Closed In Pressure	1.310	1296
2nd	Initial Flow Pressure	1.060	1050
	Final Flow Pressure	1.240	1227
	Second Closed In Pressure	1.310	1296
3rd	Initial Flow Pressure		
	Final Flow Pressure		
	Third Closed In Pressure		
Final Hydro. Mud Pressure		1.880	1858

Tester Kelly R. Schneider

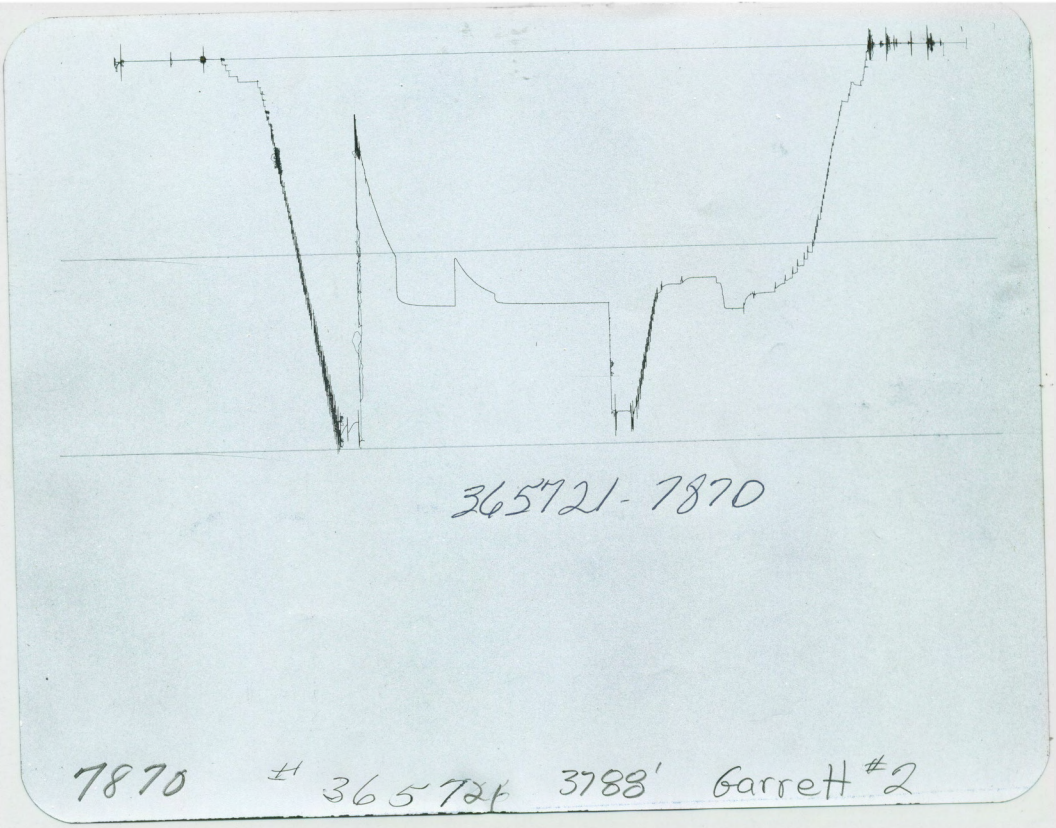
Form 892-R5
Printed in U.S.A.

HALLIBURTON SERVICES

A Halliburton Company

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

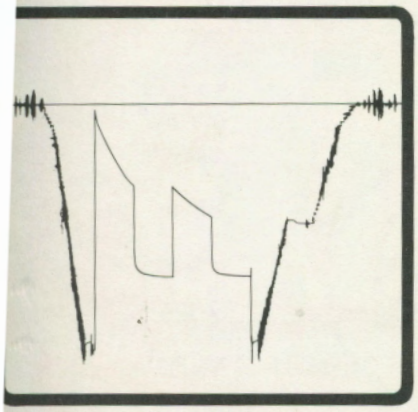
81-2882



365721 - 7870

7870 # 365721 3788' Garrett #2

FORMATION TESTING SERVICE REPORT



LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
GARRETT	2	3	3846.' - 3885.'	RUPE OIL COMPANY

HALLIBURTON SERVICES

Duncan, Oklahoma 73536

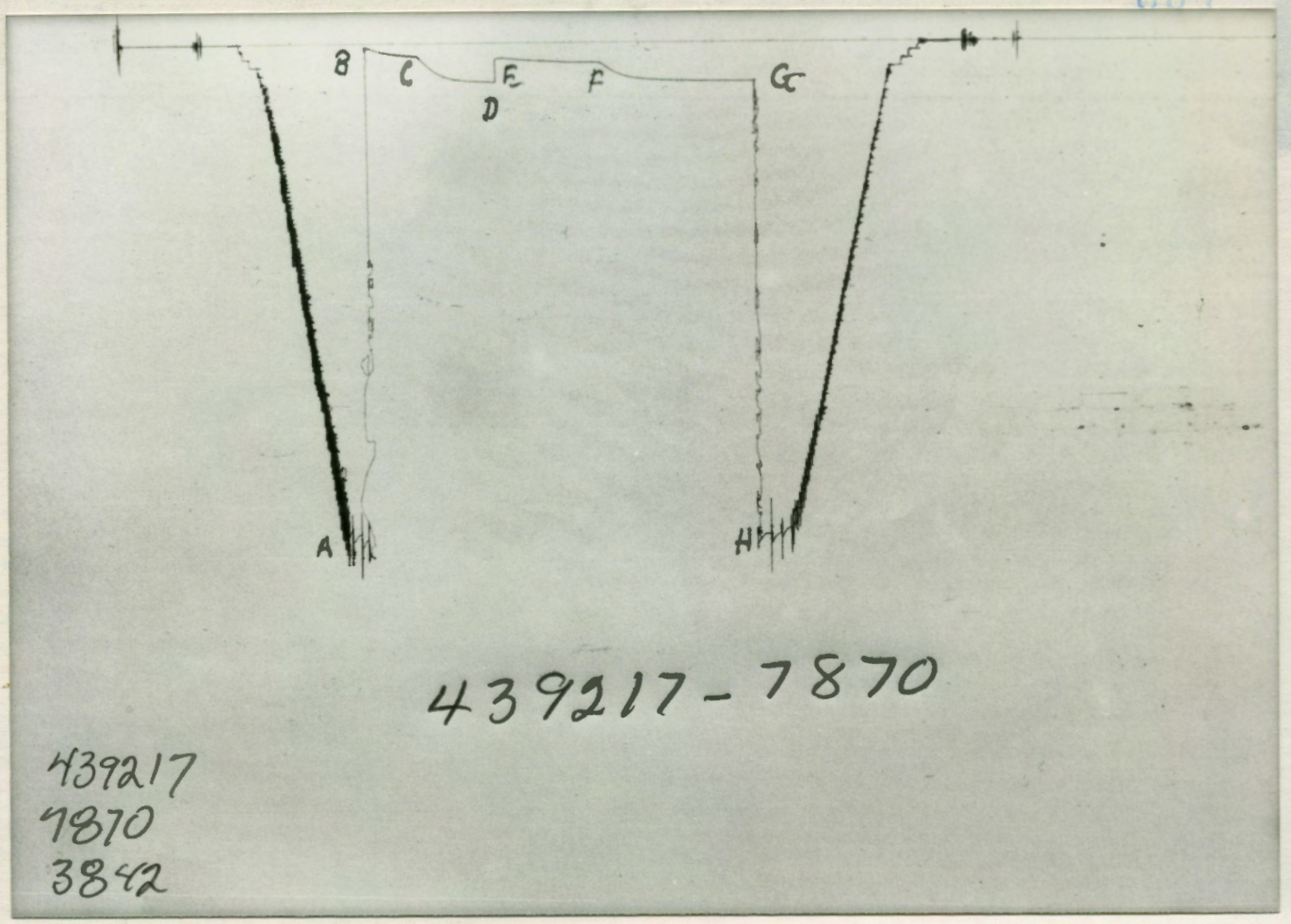
A Halliburton Company

HALLIBURTON
SERVICES

TICKET NO. 43921700
23-JUN-82
HAYS

FORMATION TESTING SERVICE REPORT

GARRETT	2	3	3846.' - 3885.'		RUPE OIL COMPANY
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL		LEASE OWNER/COMPANY NAME
LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE		
8-11S-24W		TREGO	KANSAS	OR	

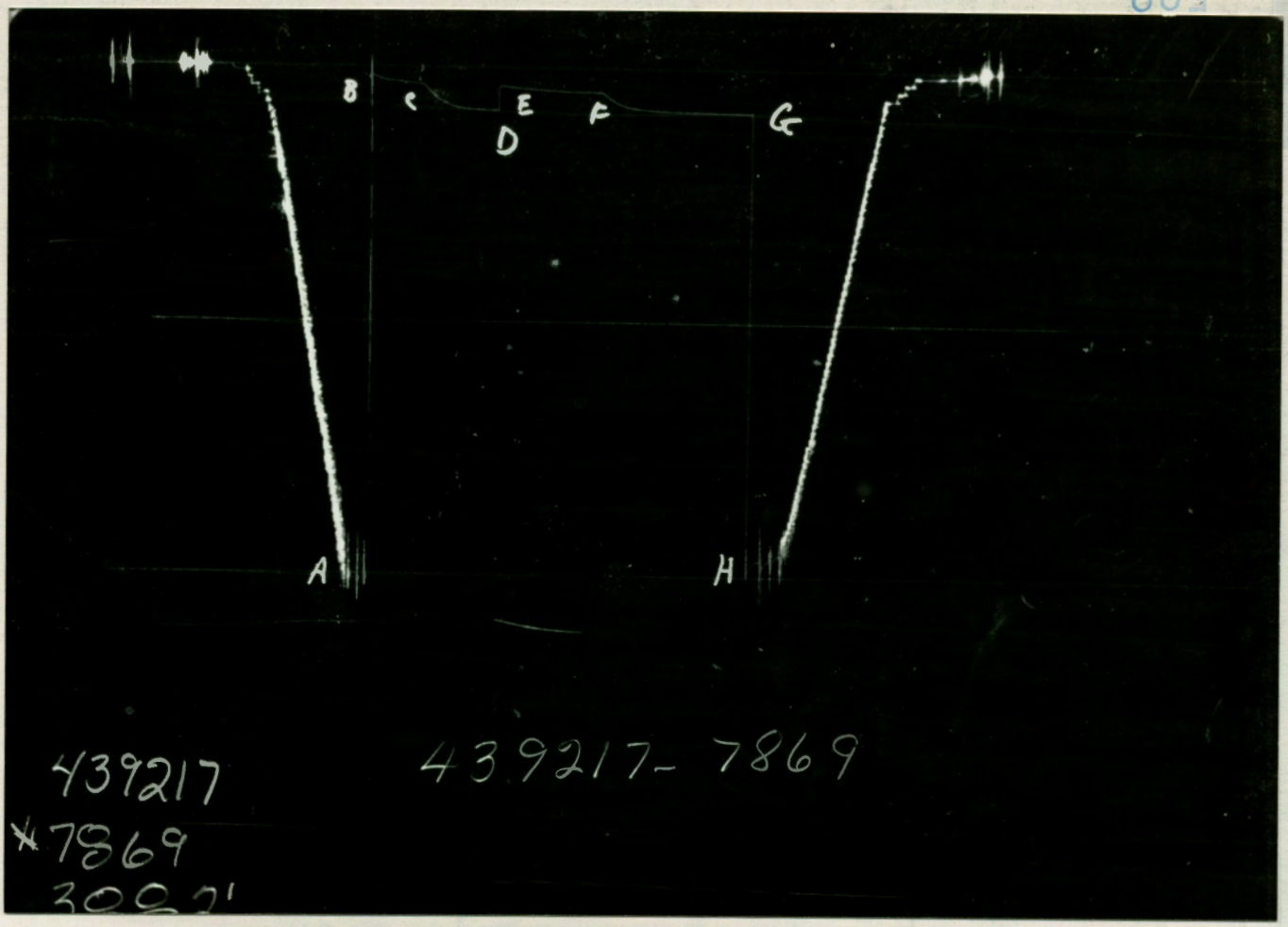


439217-7870

439217
7870
3842

GAUGE NO: 7870 DEPTH: 3840.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1914.1			
B	INITIAL FIRST FLOW		15.0	30.0	30.6	F
C	FINAL FIRST FLOW		50.5			
C	INITIAL FIRST CLOSED-IN		50.5	45.0	45.9	C
D	FINAL FIRST CLOSED-IN		152.0			
E	INITIAL SECOND FLOW		63.9	60.0	61.7	F
F	FINAL SECOND FLOW		76.8			
F	INITIAL SECOND CLOSED-IN		76.8	90.0	89.8	C
G	FINAL SECOND CLOSED-IN		151.9			
H	FINAL HYDROSTATIC		1921.1			



439217
*7869
3882'

439217-7869

GAUGE NO: 7869 DEPTH: 3882.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1929.3			
B	INITIAL FIRST FLOW		36.9	30.0	30.6	F
C	FINAL FIRST FLOW		66.6			
C	INITIAL FIRST CLOSED-IN		66.6	45.0	45.9	C
D	FINAL FIRST CLOSED-IN		167.8			
E	INITIAL SECOND FLOW		76.7	60.0	61.7	F
F	FINAL SECOND FLOW		93.7			
F	INITIAL SECOND CLOSED-IN		93.7	90.0	89.8	C
G	FINAL SECOND CLOSED-IN		170.3			
H	FINAL HYDROSTATIC		1936.6			

EQUIPMENT & HOLE DATA

FORMATION TESTED: K. ZONE
NET PAY (ft): 3.0
GROSS TESTED FOOTAGE: 39.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 2915
TOTAL DEPTH (ft): 3885.0
PACKER DEPTH(S) (ft): 3846
FINAL SURFACE CHOKE (in): 0.250
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.60
MUD VISCOSITY (sec): 56
ESTIMATED HOLE TEMP. (°F):
ACTUAL HOLE TEMP. (°F): 103 @ 3880.0 ft

TICKET NUMBER: 43921700

DATE: 6-17-82 TEST NO: 3

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: HAYS

TESTER: M. MILLER / D. MORGAN

WITNESS: JIM CRISLIN ??

DRILLING CONTRACTOR:

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:

196' OF GASSY OIL CUT MUD (6% SOLIDS-20% GAS-25% OIL-49% WATER-20% GAS-50% MUD-2% WATER-28% OIL.)

MEASURED FROM TESTER VALVE

REMARKS:

TYPE & SIZE MEASURING DEVICE: ______ | TICKET NO: 43921700

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
6-17-82					
1500					CALLED OUT
1700					ON LOCATION, RIG PULLED
					DRILL COLLARS.
1730					PICKED UP AND MADE UP TOOLS.
1800					TOOL IN TABLE.
1820					WENT IN HOLE WITH TOOL.
1915					TOOL ON BOTTOM.
1918					OPENED TOOL WITH A STRONG BLOW
					IN 19 MINUTES-12".
1948					CLOSED TOOL
2033					OPENED TOOL WITH A STRONG BLOW,
					12" IN 19 MINUTES.
2133					CLOSED TOOL
2303					TOOL OFF BOTTOM
2313					PULLED OUT OF HOLE WITH TOOL.
0050					TOOL IN TABLE.
0120					TOOL LAID DOWN.

TICKET NO: 43921700

CLOCK NO: 17421 HOUR: 12

HALLIBURTON SERVICES

GAUGE NO: 7870

DEPTH: 3840.0

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	15.0			
	2	5.0	24.0	9.0		
	3	10.0	34.2	10.3		
	4	15.0	39.9	5.7		
	5	20.0	44.3	4.4		
	6	25.0	47.5	3.2		
C	7	30.6	50.5	3.0		
			FIRST CLOSED-IN			
C	1	0.0	50.5			
	2	3.0	67.4	16.9	2.7	1.056
	3	6.0	87.0	36.5	5.0	0.789
	4	9.0	104.3	53.8	7.0	0.644
	5	12.0	117.0	66.5	8.6	0.550
	6	15.0	127.7	77.2	10.1	0.483
	7	18.0	135.7	85.2	11.3	0.432
	8	21.0	140.2	89.7	12.5	0.391
	9	24.0	143.8	93.3	13.5	0.357
	10	27.0	146.4	95.9	14.4	0.329
	11	30.0	148.7	98.2	15.1	0.306
	12	33.0	149.9	99.4	15.9	0.285
	13	36.0	151.0	100.5	16.5	0.268
	14	39.0	152.1	101.6	17.2	0.252
	15	42.0	152.2	101.7	17.7	0.238
D	16	45.9	152.0	101.5	18.4	0.222
			SECOND FLOW			
E	1	0.0	63.9			
	2	10.0	62.8	-1.1		
	3	20.0	68.1	5.3		
	4	30.0	71.6	3.5		
	5	40.1	74.8	3.2		
	6	50.0	75.9	1.2		
	7	60.0	76.9	1.0		
F	8	61.7	76.8	-0.1		
			SECOND CLOSED-IN			
F	1	0.0	76.8			
	2	6.0	104.8	27.9	5.6	1.214
	3	12.0	124.0	47.1	10.6	0.940
	4	18.0	135.8	59.0	15.1	0.788
	5	24.0	142.4	65.6	19.1	0.685
	6	30.0	145.9	69.1	22.6	0.610
	7	36.0	147.6	70.8	25.9	0.552
	8	42.0	149.2	72.4	28.9	0.505
	9	48.0	149.9	73.1	31.6	0.466

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	10	54.0	150.9	74.1	34.1	0.433
	11	60.0	151.7	74.9	36.4	0.405
	12	66.0	151.7	74.9	38.5	0.380
	13	72.0	152.6	75.7	40.5	0.358
	14	78.0	152.9	76.0	42.3	0.339
	15	84.0	152.9	76.0	44.0	0.322
G	16	89.8	151.9	75.0	45.5	0.307

REMARKS:

TICKET NO: 43921700	GAUGE NO: 7869
CLOCK NO: 17420 HOUR: 12	DEPTH: 3882.0

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	36.9			
	2	5.0	44.0	7.1		
	3	10.0	52.7	8.7		
	4	15.0	56.3	3.5		
	5	20.0	60.0	3.7		
	6	25.0	63.4	3.4		
C	7	30.6	66.6	3.2		
		FIRST CLOSED-IN				
C	1	0.0	66.6			
	2	3.0	85.5	18.9	2.7	1.052
	3	6.0	106.2	39.5	5.0	0.786
	4	9.0	122.2	55.6	7.0	0.643
	5	12.0	134.6	68.0	8.6	0.550
	6	15.0	143.2	76.6	10.1	0.484
	7	18.0	150.4	83.8	11.3	0.432
	8	21.0	155.6	88.9	12.5	0.391
	9	24.0	158.9	92.3	13.5	0.358
	10	27.0	161.6	95.0	14.4	0.329
	11	30.0	163.2	96.6	15.2	0.306
	12	33.0	163.9	97.3	15.9	0.285
	13	36.0	163.9	97.3	16.6	0.267
	14	39.0	166.2	99.6	17.2	0.252
	15	42.0	166.2	99.6	17.7	0.238
D	16	45.9	167.8	101.2	18.4	0.222
		SECOND FLOW				
E	1	0.0	76.7			
	2	10.0	79.2	2.4		
	3	20.0	84.1	4.9		
	4	30.0	88.1	4.0		
	5	40.0	91.7	3.6		
	6	50.0	93.1	1.4		
	7	60.0	93.8	0.8		
F	8	61.7	93.7	-0.1		
		SECOND CLOSED-IN				
F	1	0.0	93.7			
	2	6.0	122.5	28.8	5.6	1.214
	3	12.0	142.6	48.8	10.6	0.938
	4	18.0	153.0	59.3	15.0	0.788
	5	24.0	158.7	65.0	19.0	0.686
	6	30.0	162.0	68.3	22.6	0.610
	7	36.0	164.4	70.6	25.9	0.552
	8	42.0	165.7	71.9	28.9	0.505
	9	48.0	166.8	73.1	31.6	0.466

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
		SECOND CLOSED-IN - CONTINUED				
	10	54.0	166.8	73.1	34.1	0.433
	11	60.0	167.7	74.0	36.4	0.405
	12	66.0	167.7	74.0	38.5	0.380
	13	72.0	168.8	75.0	40.5	0.358
	14	78.0	168.8	75.0	42.3	0.339
	15	84.0	169.9	76.1	44.0	0.322
G	16	89.8	170.3	76.5	45.5	0.307

REMARKS:

TICKET NO. 43921700

		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3642.0	
3	DRILL COLLARS.....	6.000	2.500	62.0	
50	IMPACT REVERSING SUB.....	5.750	1.000	1.0	3704.0
3	DRILL COLLARS.....	6.000	2.500	124.0	
5	CROSSOVER.....	6.000	2.500	1.0	
12	DUAL CIP VALVE.....	5.000	0.870	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	3838.0
80	AP RUNNING CASE.....	5.000	3.060	4.0	3840.0
70	OPEN HOLE PACKER.....	6.750	1.530	4.0	3846.0
20	FLUSH JOINT ANCHOR.....	5.000	3.840	32.0	
83	HT-500 TEMPERATURE CASE.....	5.000	3.750	1.5	3880.0
81	BLANKED-OFF RUNNING CASE.....	5.000	2.440	4.0	3882.0
	TOTAL DEPTH				3885.0

EQUIPMENT DATA

D.S.T. Report Distribution

HALLIBURTON
SERVICES

A Division of Halliburton Company

FORM 1509R3 — **DUNCAN, OKLAHOMA 73533**

RUPE OIL Co

Company Name - - Lease Owner

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

for Ticket No. 439214

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

Company RUPE OIL
Orig. Chart

ATT.

5
& Reports

P.O. BOX
STREET & NO. BUILDING 2223 434 OHIO
CITY
STATE WICHITA KS
ZIP CODE NUMBER 67204

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

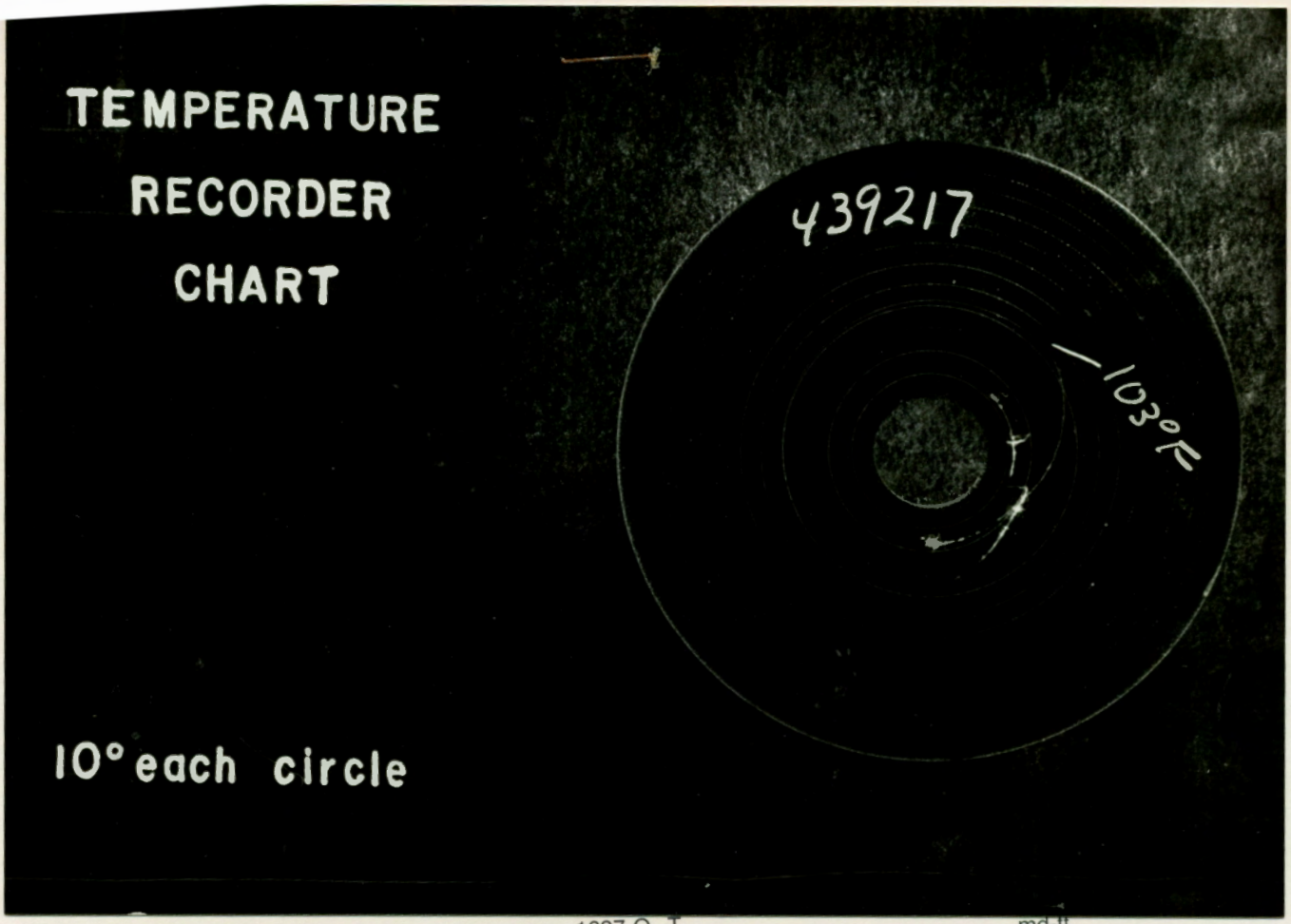
P.O. BOX
STREET & NO.
BUILDING
CITY
STATE
ZIP CODE NUMBER

Owner - Operator - or His Agent

SIGNED James F Rupe, **Agent**

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

(Use Additional Sheets When Necessary)



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

W 439217-7870 (5)

RECORDING PRESSURE GAUGE CHART

Ticket No. 439217 Date 6-17-82

Company RUPE OIL CO.

Lease GARRETT Well No. 2

FIELD READINGS

Device No. 7870		Hr. Clock No. 17421	
B.T. Gauge Depth 3840 Ft.		Estimated Gauge Depth Temperature 103 °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 McNeil Miller

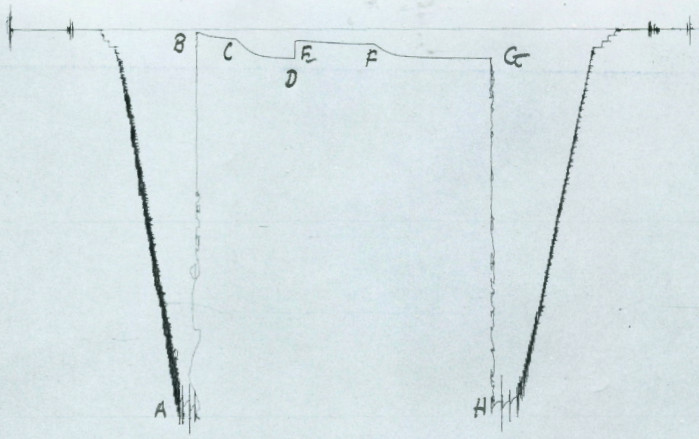
Form 892-R5
Printed in U.S.A.

HALLIBURTON SERVICES

A Halliburton Company

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

81-2882



439217-7870

439217
7870
3842