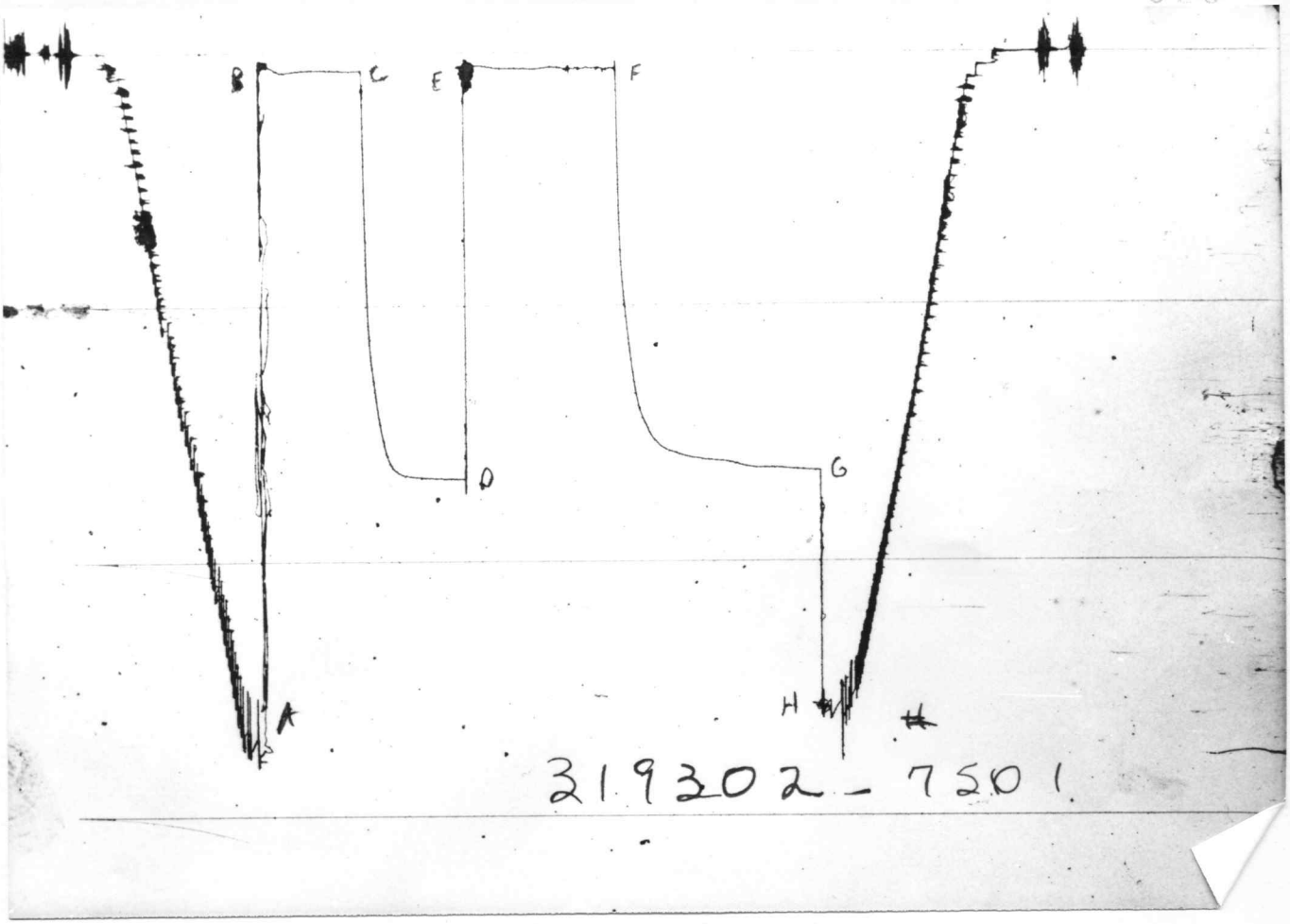
HALLIBURTON
SERVICES

TICKET NO. 31930200
05-APR-82

FORMATION TESTING SERVICE REPORT

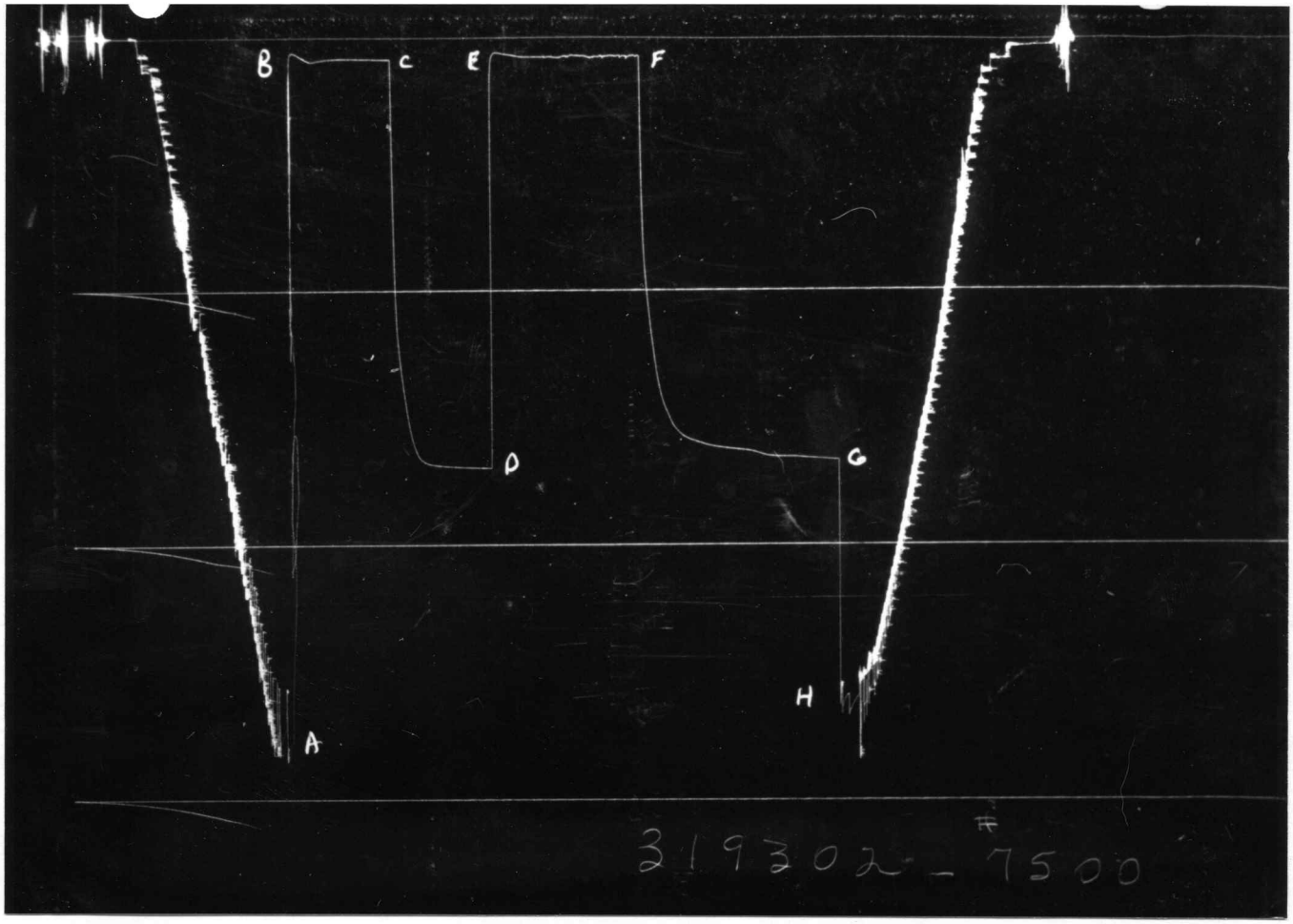
ALTON UNRUH	3	3	5049.' - 5072.'	THE MAURICE L. BROWN COMPANY
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME

LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE
26-30-18		KIOWA	KANSAS BM/IC



GAUGE NO: 7501 DEPTH: 5028.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2739.9				
B	INITIAL FIRST FLOW	48.0		60.0	60.8	F
C	FINAL FIRST FLOW	72.5				
C	INITIAL FIRST CLOSED-IN	72.5		60.0	60.4	C
D	FINAL FIRST CLOSED-IN	1675.6				
E	INITIAL SECOND FLOW	51.5		90.0	89.5	F
F	FINAL SECOND FLOW	64.1				
F	INITIAL SECOND CLOSED-IN	64.1		120.0	119.3	C
G	FINAL SECOND CLOSED-IN	1644.0				
H	FINAL HYDROSTATIC	2579.6				



GAUGE NO: 7500 DEPTH: 5069.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		2766.9			
B	INITIAL FIRST FLOW		105.8	60.0	60.8	F
C	FINAL FIRST FLOW		83.7			
C	INITIAL FIRST CLOSED-IN		83.7	60.0	60.4	C
D	FINAL FIRST CLOSED-IN		1693.7			
E	INITIAL SECOND FLOW		147.5	90.0	89.5	F
F	FINAL SECOND FLOW		69.8			
F	INITIAL SECOND CLOSED-IN		69.8	120.0	119.3	C
G	FINAL SECOND CLOSED-IN		1659.7			
H	FINAL HYDROSTATIC		2586.8			

EQUIPMENT & HOLE DATA

FORMATION TESTED: MISSISSIPPI
NET PAY (ft): 7.0
GROSS TESTED FOOTAGE: 23.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 2172
TOTAL DEPTH (ft): 5072.0
PACKER DEPTH(S) (ft): 5043, 5049
FINAL SURFACE CHOKE (in): 1.000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.70
MUD VISCOSITY (sec): 60
ESTIMATED HOLE TEMP. (°F):
ACTUAL HOLE TEMP. (°F): 92 @ 5067.0 ft

TICKET NUMBER: 31930200

DATE: 3-28-82 TEST NO: 3

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: PRATT

TESTER: PARKER

WITNESS: PALMER

DRILLING CONTRACTOR: ABERCROMBIE DRILLING COMPANY

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:

180 FEET OF GAS & OIL CUT MUD

MEASURED FROM TESTER VALVE

REMARKS:

TYPE & SIZE MEASURING DEVICE: _____ TICKET NO: 31930200

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
0730					PICKED UP TOOL
0745					TOOLS MADE UP-THROUGH ROTARY
0937					ON BOTTOM
0940					OPENED TOOL WITH STRONG BLOW
0952					OPENED 2" LINE-.5" CHOKE
0954					GAS TO SURFACE
0955	.5	28	222		
1000	.5	20	177		
1005	.5	18	166		
1010	.5	16	153		
1015	.5	16	153		
1020	.5	15.5	150		
1025	.5	15	147		
1030	.5	15	147		
1035	.5	15	147		
1040	.5	15	147		CLOSED TOOL
1140					REOPENED TOOL TO 2" LINE
					AND .5" CHOKE
1150	.5	17	159		
1155	.5	16.5	156		
1200	.5	16	153		
1205	.5	15.5	150		
1210	.5	15	147		
1215	.5	14.5	144		
1220	.5	14	141		
1225	.5	13.5	137		
1230	.5	13	134		
1235	.5	12.5	131		
1240	.5	12	129		STARTED SLIGHT OIL SPRAY
1245	.5	11.5	125		SLIGHT OIL SPRAY
1250	.5	11.5	125		SLIGHT OIL SPRAY
1255	.5	11	121		SLIGHT OIL SPRAY
1300	.5	11	121		SLIGHT OIL SPRAY
1305	.5	10.5	118		SLIGHT OIL SPRAY
1310	.5	10.5	118		CLOSED TOOL
1510					OFF BOTTOM
1700					TOOL IN ROTARY TABLE

TICKET NO: 31930200	GAUGE NO: 7501
CLOCK NO: 25710 HOUR: 12	DEPTH: 5028.0

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	48.0			
	2	10.0	72.3	24.3		
	3	20.0	75.4	3.2		
	4	30.0	70.5	-5.0		
	5	40.0	71.4	0.9		
	6	50.0	73.8	2.4		
C	7	60.8	72.5	-1.3		
		FIRST CLOSED-IN				
C	1	0.0	72.5			
	2	4.0	1176.1	1103.6	3.7	1.210
	3	8.0	1397.7	1325.2	7.1	0.932
	4	12.0	1540.5	1468.1	10.0	0.784
	5	16.0	1619.0	1546.6	12.7	0.681
	6	20.0	1649.3	1576.8	15.1	0.606
	7	24.0	1662.4	1589.9	17.2	0.548
	8	28.0	1665.9	1593.4	19.1	0.502
	9	32.0	1668.6	1596.1	21.0	0.462
	10	36.0	1671.5	1599.0	22.6	0.429
	11	40.0	1672.0	1599.5	24.1	0.401
	12	44.0	1673.7	1601.3	25.5	0.377
	13	48.0	1674.7	1602.2	26.8	0.355
	14	52.0	1674.9	1602.4	28.0	0.336
	15	56.0	1675.7	1603.2	29.1	0.319
D	16	60.4	1675.6	1603.1	30.3	0.302
		SECOND FLOW				
E	1	0.0	51.5			
	2	10.0	53.8	2.3		
	3	20.0	62.9	9.1		
	4	30.0	63.7	0.8		
	5	40.0	65.8	2.2		
	6	50.0	58.7	-7.1		
	7	60.0	66.6	7.9		
	8	70.0	63.9	-2.8		
	9	80.0	62.2	-1.7		
F	10	89.5	64.1	1.9		
		SECOND CLOSED-IN				
F	1	0.0	64.1			
	2	8.0	1209.6	1145.5	7.6	1.299
	3	16.0	1453.6	1389.6	14.4	1.017
	4	24.0	1539.2	1475.1	20.7	0.861
	5	32.0	1568.7	1504.6	26.4	0.756
	6	40.0	1585.6	1521.6	31.6	0.678
	7	48.0	1596.0	1531.9	36.4	0.616

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
		SECOND CLOSED-IN - CONTINUED				
	8	56.0	1603.1	1539.1	40.8	0.566
	9	64.0	1607.4	1543.4	44.9	0.525
	10	72.0	1621.3	1557.2	48.7	0.490
	11	80.0	1631.0	1566.9	52.2	0.459
	12	88.0	1632.3	1568.3	55.5	0.433
	13	96.0	1633.3	1569.2	58.6	0.409
	14	104.0	1637.8	1573.7	61.5	0.388
	15	112.0	1641.1	1577.1	64.2	0.370
G	16	119.3	1644.0	1580.0	66.5	0.354

REMARKS:

TICKET NO: 31930200	GAUGE NO: 7500
CLOCK NO: 2476 HOUR: 12	DEPTH: 5069.0

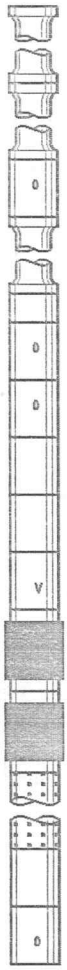
HALLIBURTON SERVICES

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	105.8			
	2	10.0	85.7	-20.1		
	3	20.0	86.7	1.0		
	4	30.0	81.7	-5.0		
	5	40.0	81.7	0.0		
	6	50.0	83.2	1.5		
C	7	60.8	83.7	0.5		
		FIRST CLOSED-IN				
C	1	0.0	83.7			
	2	4.0	1180.5	1096.8	3.8	1.210
	3	8.0	1412.3	1328.6	7.1	0.932
	4	12.0	1560.9	1477.3	10.0	0.782
	5	16.0	1642.0	1558.3	12.6	0.682
	6	20.0	1670.3	1586.6	15.0	0.607
	7	24.0	1679.9	1596.2	17.2	0.548
	8	28.0	1683.8	1600.1	19.2	0.501
	9	32.0	1686.4	1602.8	20.9	0.463
	10	36.0	1687.8	1604.1	22.6	0.430
	11	40.0	1689.5	1605.8	24.1	0.401
	12	44.0	1690.6	1607.0	25.5	0.377
	13	48.0	1691.5	1607.8	26.8	0.355
	14	52.0	1692.5	1608.8	28.0	0.336
	15	56.0	1693.2	1609.5	29.1	0.319
D	16	60.4	1693.7	1610.0	30.3	0.302
		SECOND FLOW				
E	1	0.0	147.5			
	2	10.0	63.3	-84.3		
	3	20.0	72.8	9.5		
	4	30.0	73.4	0.6		
	5	40.0	75.5	2.2		
	6	50.0	67.1	-8.4		
	7	60.0	75.0	7.9		
	8	70.0	70.2	-4.9		
	9	80.0	69.5	-0.7		
F	10	89.5	69.8	0.3		
		SECOND CLOSED-IN				
F	1	0.0	69.8			
	2	8.0	1226.8	1157.0	7.6	1.296
	3	16.0	1467.9	1398.1	14.5	1.016
	4	24.0	1555.6	1485.8	20.7	0.860
	5	32.0	1584.3	1514.5	26.4	0.755
	6	40.0	1601.7	1531.9	31.6	0.678
	7	48.0	1611.7	1541.9	36.4	0.616

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
		SECOND CLOSED-IN - CONTINUED				
	8	56.0	1618.5	1548.7	40.8	0.566
	9	64.0	1623.2	1553.4	44.9	0.525
	10	72.0	1635.4	1565.6	48.7	0.490
	11	80.0	1646.3	1576.5	52.2	0.459
	12	88.0	1648.1	1578.3	55.5	0.433
	13	96.0	1649.5	1579.7	58.6	0.409
	14	104.0	1654.0	1584.2	61.5	0.388
	15	112.0	1656.7	1586.9	64.2	0.370
G	16	119.3	1659.7	1589.9	66.5	0.354

REMARKS:

TICKET NO. 31930200



		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	4654.0	
4	FLEX WEIGHT.....	4.500	2.764	180.0	
50	IMPACT REVERSING SUB.....	6.000	2.250	1.0	4834.0
4	FLEX WEIGHT.....	4.500	2.764	180.0	
5	CROSSOVER.....	6.000	2.250	1.0	
12	DUAL CIP VALVE.....	5.000	0.870	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	5026.0
80	AP RUNNING CASE.....	5.000	3.060	4.0	5028.0
15	JAR.....	5.000	1.530	5.0	
16	VR SAFETY JOINT.....	5.000	1.000	3.0	
70	OPEN HOLE PACKER.....	6.750	1.530	6.0	5043.0
70	OPEN HOLE PACKER.....	6.750	1.530	6.0	5049.0
20	FLUSH JOINT ANCHOR.....	5.000	2.370	16.0	
82	TEMPERATURE RUNNING CASE.....	5.000	2.440	1.0	5067.0
81	BLANKED-OFF RUNNING CASE.....	5.000	2.440	4.0	5069.0

TOTAL DEPTH 5072.0

EQUIPMENT DATA