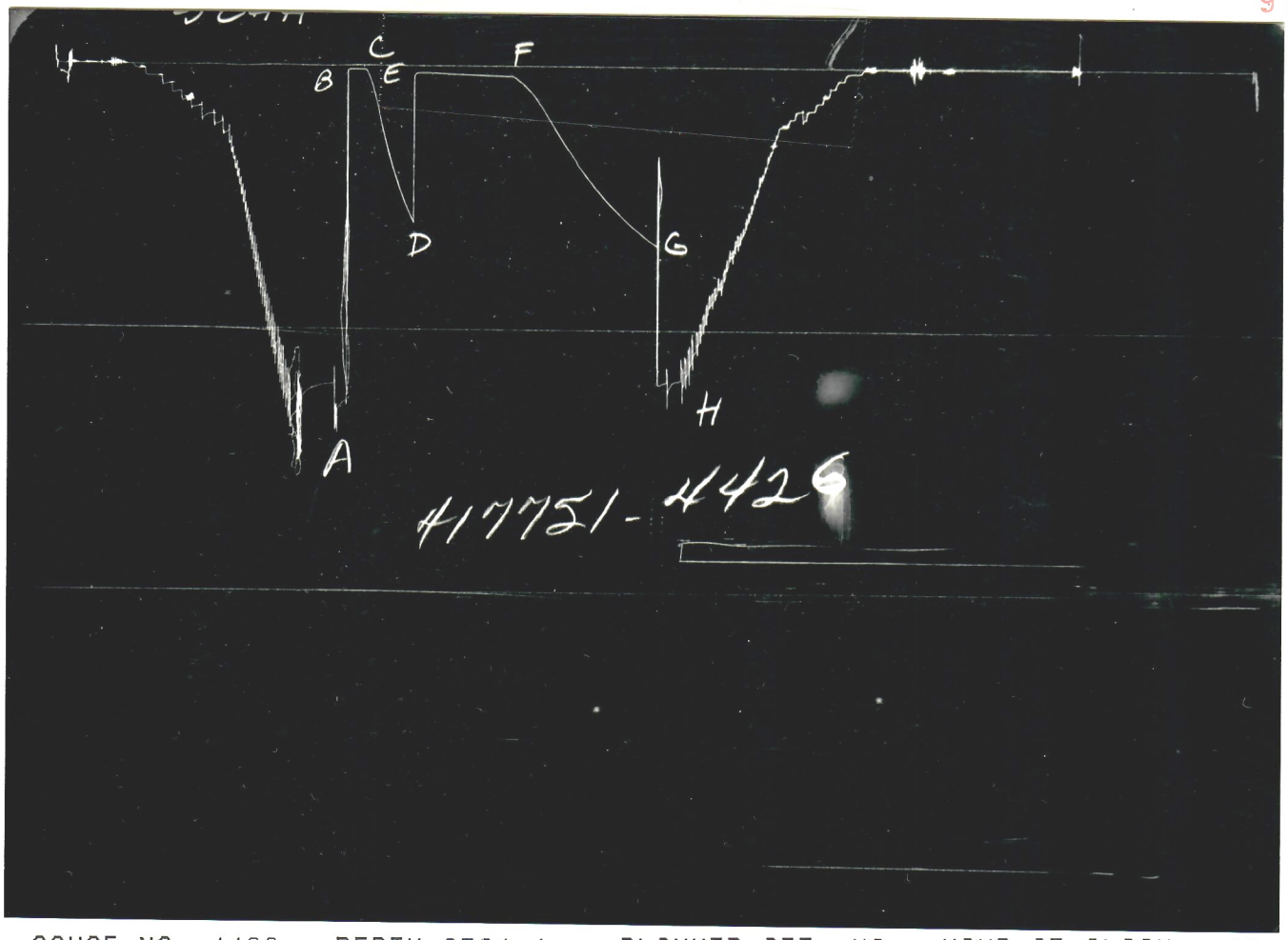
HALLIBURTON
SERVICES

TICKET NO. 41775100
05-SEP-86
VERNAL

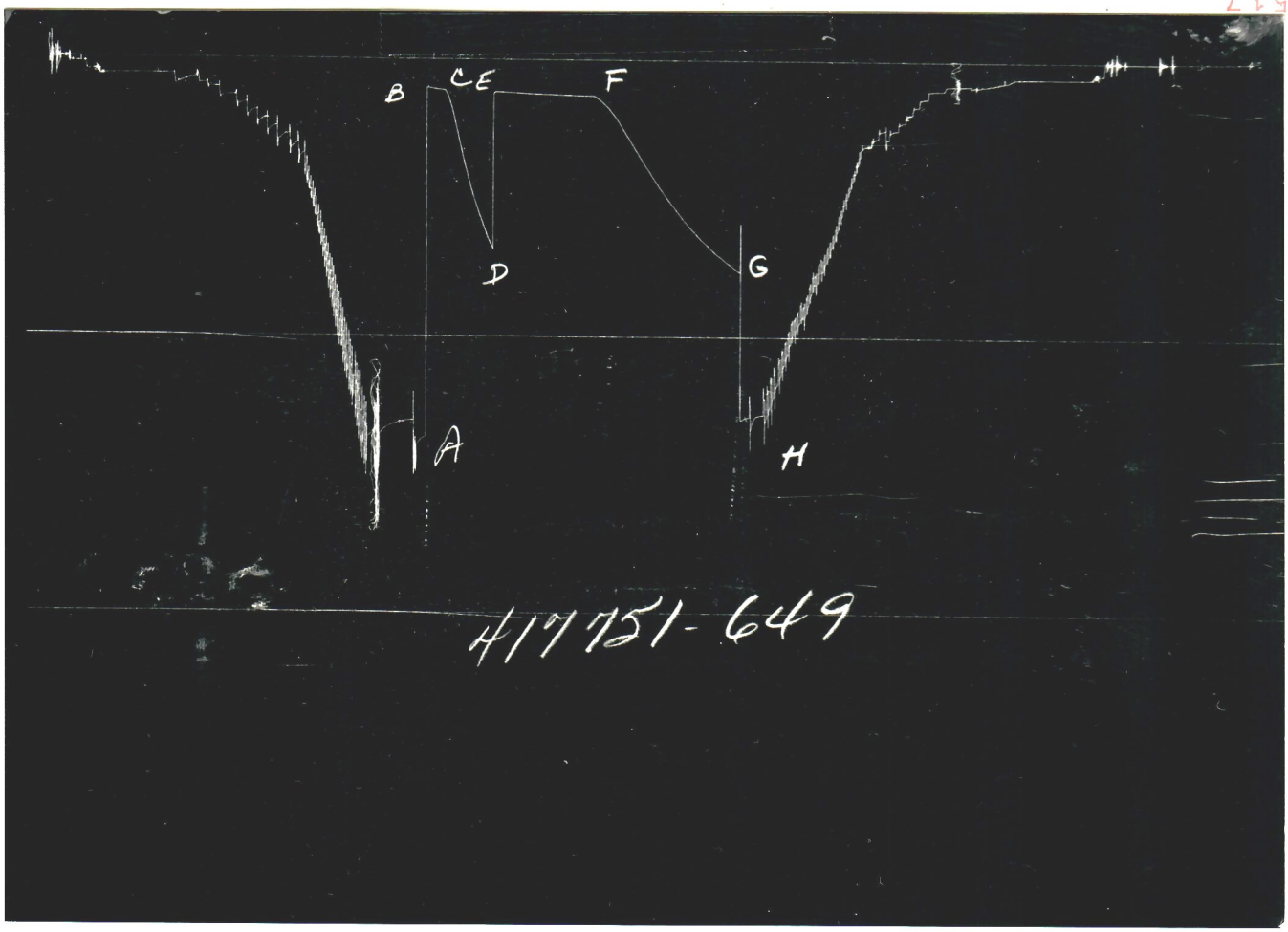
FORMATION TESTING SERVICE REPORT

LEGAL LOCATION SEC. - TWP. - RNG.	17-7N-90W	FIELD AREA	NORTH OF CRAIG	COUNTY	MOFFAT	STATE	COLORADO
LEASE NAME	STEHLE	WELL NO.	17-22	TEST NO.	1	TESTED INTERVAL	2618.0 - 2781.0	LEASE OWNER/COMPANY NAME	BWAB INCORPORATED		IC



GAUGE NO: 4426 DEPTH: 2594.4 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1204	1206.8			
B	INITIAL FIRST FLOW	17	21.7	11.0	11.1	F
C	FINAL FIRST FLOW	17	18.2			
C	INITIAL FIRST CLOSED-IN	17	18.2	30.0	29.7	C
D	FINAL FIRST CLOSED-IN	567	593.2			
E	INITIAL SECOND FLOW	17	38.1	60.0	60.6	F
F	FINAL SECOND FLOW	35	41.6			
F	INITIAL SECOND CLOSED-IN	35	41.6	91.0	90.6	C
G	FINAL SECOND CLOSED-IN	638	680.5			
H	FINAL HYDROSTATIC	1151	1196.1			



GAUGE NO: 649 DEPTH: 2778.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1346	1300.8			
B	INITIAL FIRST FLOW	97	103.8	11.0	11.1	F
C	FINAL FIRST FLOW	106	113.1			
C	INITIAL FIRST CLOSED-IN	106	113.1	30.0	29.7	C
D	FINAL FIRST CLOSED-IN	678	681.2			
E	INITIAL SECOND FLOW	106	123.7	60.0	60.6	F
F	FINAL SECOND FLOW	133	131.4			
F	INITIAL SECOND CLOSED-IN	133	131.4	91.0	90.6	C
G	FINAL SECOND CLOSED-IN	753	762.0			
H	FINAL HYDROSTATIC	1293	1283.4			

EQUIPMENT & HOLE DATA

FORMATION TESTED: LEWIS SAND
NET PAY (ft): _____
GROSS TESTED FOOTAGE: 163.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft): _____
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 6384.0 GROUND LEVEL
TOTAL DEPTH (ft): 2781.0
PACKER DEPTH(S) (ft): 2611, 2618
FINAL SURFACE CHOKE (in): _____
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.30
MUD VISCOSITY (sec): 45
ESTIMATED HOLE TEMP. (°F): _____
ACTUAL HOLE TEMP. (°F): 94 @ 2777.0 ft

TICKET NUMBER: 41775100

DATE: 9-2-86 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: VERNAL

TESTER: EROS ROY AROCHO

WITNESS: GENE NICE

DRILLING CONTRACTOR: OLSEN DRILLING

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
MUD PIT	1.100 @ 68 °F	3500 ppm
TOP OF FLUID	1.000 @ 68 °F	3800 ppm
SAMPLE CHAMBER	0.910 @ 68 °F	4200 ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm

SAMPLER DATA

Psig AT SURFACE: 5.0
cu.ft. OF GAS: 0.201
cc OF OIL: _____
cc OF WATER: _____
cc OF MUD: 1950.0
TOTAL LIQUID cc: 1950.0

HYDROCARBON PROPERTIES

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

CUSHION DATA

TYPE	AMOUNT	WEIGHT

RECOVERED:

40 FEET OF MUD (FROM TESTER VALVE)

MEASURED FROM TESTER VALVE

REMARKS:

TYPE & SIZE MEASURING DEVICE: _____ TICKET NO: 41775100

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
9-2-86					
0100					ON LOCATION
0400					PICKED UP TOOLS
0600					RAN IN HOLE
0756					TAGGED BOTTOM
0801	BH				OPENED TOOL WITH A WEAK BLOW -
					HAD 1/2" BLOW THROUGHOUT FLOW
0812					CLOSED TOOL - 1/2" BLOW
0842	BH				OPENED TOOL WITH WEAK BLOW -
					1/4" BLOW
0852					BLOW DECREASING - 1/8"
0902					BARELY BREAKING SURFACE OF WATER
0912					ALMOST DEAD
0914					DEAD
0942					CLOSED TOOL
1113					OPENED BYPASS AND PULLED OUT
1300					DRAINED SAMPLE - LAID DOWN TOOLS
1500					READ CHARTS
1600					JOB COMPLETED

TICKET NO: 41775100

CLOCK NO: 6744 HOUR: 12

HALLIBURTON SERVICES

GAUGE NO: 4426

DEPTH: 2594.4

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	21.7			
	2	2.0	17.6	-4.1		
	3	4.0	17.3	-0.3		
	4	6.0	17.3	0.0		
	5	8.0	17.7	0.4		
	6	10.0	18.0	0.3		
C	7	11.1	18.2	0.2		
			FIRST CLOSED-IN			
C	1	0.0	18.2			
	2	1.0	28.4	10.2	0.9	1.087
	3	2.0	42.1	23.9	1.7	0.817
	4	3.0	59.1	40.9	2.4	0.669
	5	4.0	77.7	59.6	2.9	0.579
	6	5.0	101.6	83.4	3.4	0.507
	7	6.0	124.8	106.6	3.9	0.454
	8	7.0	148.9	130.7	4.3	0.414
	9	8.0	174.5	156.3	4.6	0.377
	10	9.0	200.9	182.7	5.0	0.348
	11	10.0	227.9	209.7	5.3	0.323
	12	12.0	279.5	261.3	5.8	0.283
	13	14.0	325.2	307.1	6.2	0.253
	14	16.0	371.9	353.7	6.5	0.228
	15	18.0	411.2	393.0	6.9	0.208
	16	20.0	449.4	431.3	7.1	0.191
	17	22.0	483.0	464.8	7.4	0.177
	18	24.0	515.1	496.9	7.6	0.164
	19	26.0	543.7	525.5	7.8	0.154
	20	28.0	571.7	553.6	7.9	0.145
D	21	29.7	593.2	575.0	8.1	0.138
			SECOND FLOW			
E	1	0.0	38.1			
	2	5.0	28.6	-9.6		
	3	10.0	28.9	0.4		
	4	15.0	30.4	1.5		
	5	20.0	32.0	1.6		
	6	25.0	33.4	1.4		
	7	30.0	34.9	1.5		
	8	35.0	35.6	0.7		
	9	40.0	37.1	1.5		
	10	45.0	38.0	0.9		
	11	50.0	39.1	1.1		
	12	55.0	40.4	1.3		
F	13	60.6	41.6	1.1		

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			SECOND CLOSED-IN			
F	1	0.0	41.6			
	2	1.0	44.7	3.2	1.0	1.867
	3	2.0	49.1	7.5	2.0	1.562
	4	3.0	53.7	12.2	2.9	1.391
	5	4.0	58.6	17.1	3.8	1.279
	6	5.0	63.5	21.9	4.6	1.189
	7	6.0	68.9	27.4	5.5	1.116
	8	7.0	75.1	33.6	6.3	1.054
	9	8.0	81.0	39.4	7.2	0.998
	10	9.0	87.1	45.5	8.0	0.954
	11	10.0	93.7	52.1	8.8	0.913
	12	12.0	106.5	64.9	10.3	0.844
	13	14.0	121.5	80.0	11.7	0.788
	14	16.0	137.8	96.3	13.1	0.740
	15	18.0	156.3	114.7	14.4	0.697
	16	20.0	175.8	134.2	15.6	0.661
	17	22.0	194.4	152.9	16.8	0.630
	18	24.0	215.1	173.6	18.0	0.600
	19	26.0	234.5	192.9	19.1	0.574
	20	28.0	253.6	212.1	20.1	0.552
	21	30.0	274.4	232.8	21.2	0.530
	22	35.0	320.6	279.0	23.5	0.484
	23	40.0	368.3	326.7	25.7	0.446
	24	45.0	411.8	370.2	27.7	0.414
	25	50.0	450.0	408.4	29.5	0.386
	26	55.0	486.8	445.3	31.1	0.363
	27	60.0	520.2	478.6	32.7	0.341
	28	70.0	581.9	540.3	35.4	0.306
	29	80.0	633.9	592.4	37.8	0.278
G	30	90.6	680.5	638.9	40.0	0.253

REMARKS:

TICKET NO: 41775100

CLOCK NO: 2797 HOUR: 12

HALLIBURTON SERVICES

GAUGE NO: 649

DEPTH: 2778.0

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	103.8			
	2	2.0	105.5	1.7		
	3	4.0	108.1	2.6		
	4	6.0	109.8	1.7		
	5	8.0	111.3	1.5		
	6	10.0	112.6	1.3		
C	7	11.1	113.1	0.4		

FIRST CLOSED-IN

C	1	0.0	113.1			
	2	1.0	122.6	9.5	0.9	1.086
	3	2.0	135.5	22.4	1.7	0.814
	4	3.0	152.5	39.5	2.4	0.670
	5	4.0	171.6	58.5	2.9	0.578
	6	5.0	196.2	83.2	3.5	0.506
	7	6.0	222.7	109.7	3.9	0.454
	8	7.0	247.5	134.4	4.3	0.413
	9	8.0	274.4	161.4	4.6	0.377
	10	9.0	298.8	185.8	5.0	0.349
	11	10.0	324.9	211.8	5.3	0.324
	12	12.0	374.5	261.4	5.8	0.284
	13	14.0	419.1	306.0	6.2	0.253
	14	16.0	463.7	350.6	6.5	0.229
	15	18.0	499.7	386.6	6.8	0.208
	16	20.0	535.9	422.8	7.1	0.192
	17	22.0	570.2	457.1	7.4	0.177
	18	24.0	603.2	490.2	7.6	0.165
	19	26.0	632.7	519.6	7.8	0.154
	20	28.0	659.1	546.0	7.9	0.145
D	21	29.7	681.2	568.1	8.1	0.138

SECOND FLOW

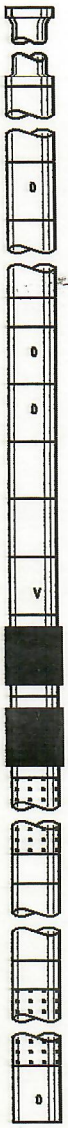
E	1	0.0	123.7			
	2	5.0	118.7	-5.0		
	3	10.0	120.3	1.6		
	4	15.0	122.1	1.8		
	5	20.0	123.9	1.8		
	6	25.0	125.2	1.3		
	7	30.0	126.5	1.3		
	8	35.0	127.6	1.1		
	9	40.0	128.8	1.2		
	10	45.0	129.5	0.7		
	11	50.0	130.1	0.5		
	12	55.0	131.3	1.2		
F	13	60.6	131.4	0.1		

SECOND CLOSED-IN

F	1	0.0	131.4			
	2	1.0	133.5	2.1	1.0	1.867
	3	2.0	137.0	5.6	2.0	1.562
	4	3.0	141.0	9.6	2.9	1.391
	5	4.0	145.8	14.4	3.8	1.274
	6	5.0	150.3	18.9	4.7	1.186
	7	6.0	154.7	23.3	5.5	1.115
	8	7.0	161.0	29.6	6.4	1.051
	9	8.0	167.6	36.2	7.2	0.998
	10	9.0	173.3	41.9	8.0	0.952
	11	10.0	179.5	48.1	8.8	0.912
	12	12.0	192.9	61.5	10.3	0.845
	13	14.0	209.5	78.1	11.7	0.787
	14	16.0	226.6	95.2	13.1	0.739
	15	18.0	245.3	113.9	14.4	0.698
	16	20.0	264.4	133.0	15.6	0.662
	17	22.0	283.7	152.3	16.8	0.630
	18	24.0	303.7	172.3	18.0	0.601
	19	26.0	324.7	193.3	19.1	0.574
	20	28.0	342.5	211.1	20.1	0.552
	21	30.0	361.0	229.6	21.1	0.531
	22	35.0	409.0	277.6	23.5	0.484
	23	40.0	452.8	321.4	25.7	0.446
	24	45.0	494.3	362.9	27.7	0.414
	25	50.0	534.0	402.6	29.5	0.386
	26	55.0	571.4	440.0	31.1	0.362
	27	60.0	605.0	473.6	32.7	0.341
	28	70.0	663.9	532.5	35.4	0.306
	29	80.0	715.6	584.2	37.8	0.278
G	30	90.6	762.0	630.6	40.0	0.253

REMARKS:

TICKET NO. 41775100



		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.000	3.340	2098.0	
3	DRILL COLLARS.....	6.000	2.250	450.7	
152	PUMPOUT & IMPACT REVERSING SUB..	6.000	3.000	1.0	2549.5
3	DRILL COLLARS.....	6.000	2.250	30.3	
5	CROSSOVER.....	6.000	2.250	1.0	
13	DUAL CIP SAMPLER.....	5.000	0.750	7.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	2592.3
80	AP RUNNING CASE.....	5.000	2.250	4.1	2594.4
15	JAR.....	5.000	1.750	5.0	
16	VR SAFETY JOINT.....	5.000	1.000	2.8	
70	OPEN HOLE PACKER.....	7.000	1.530	7.4	2610.6
70	OPEN HOLE PACKER.....	7.000	1.530	7.4	2618.0
20	FLUSH JOINT ANCHOR.....	5.750	2.870	23.0	
5	CROSSOVER.....	6.125	2.500	1.0	
3	DRILL COLLARS.....	6.000	2.250	122.3	
5	CROSSOVER.....	5.750	3.000	0.6	
20	FLUSH JOINT ANCHOR.....	5.750	3.500	10.0	
81	BLANKED-OFF RUNNING CASE.....	5.750		4.1	2778.0
	TOTAL DEPTH				2781.0

EQUIPMENT DATA