

APL 15-025-20941

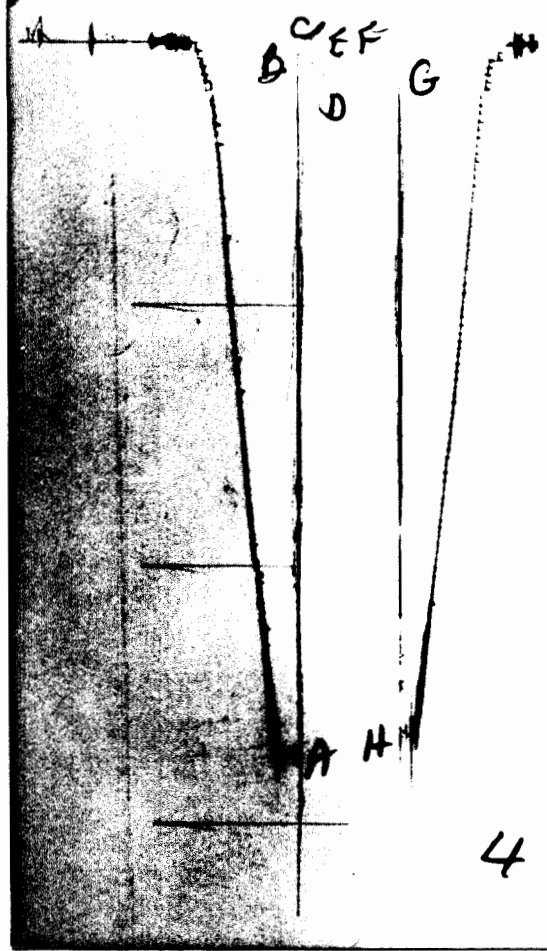


TICKET NO. 43600200
17-FEB-86
PRATT

FORMATION TESTING SERVICE REPORT

LEGAL LOCATION	24' W of C SE SE SW	FIELD AREA	WC	COUNTY	CLARK	STATE	KANSAS	DR
SEC. - TWP. - RANG.	5-34-22 W							
LEASE NAME	HUBER	WELL NO.	1-5	TEST NO.	1	TESTED INTERVAL	5522.0 - 5696.0	CELERON OIL AND GAS COMPANY
								LEASE OWNER/COMPANY NAME

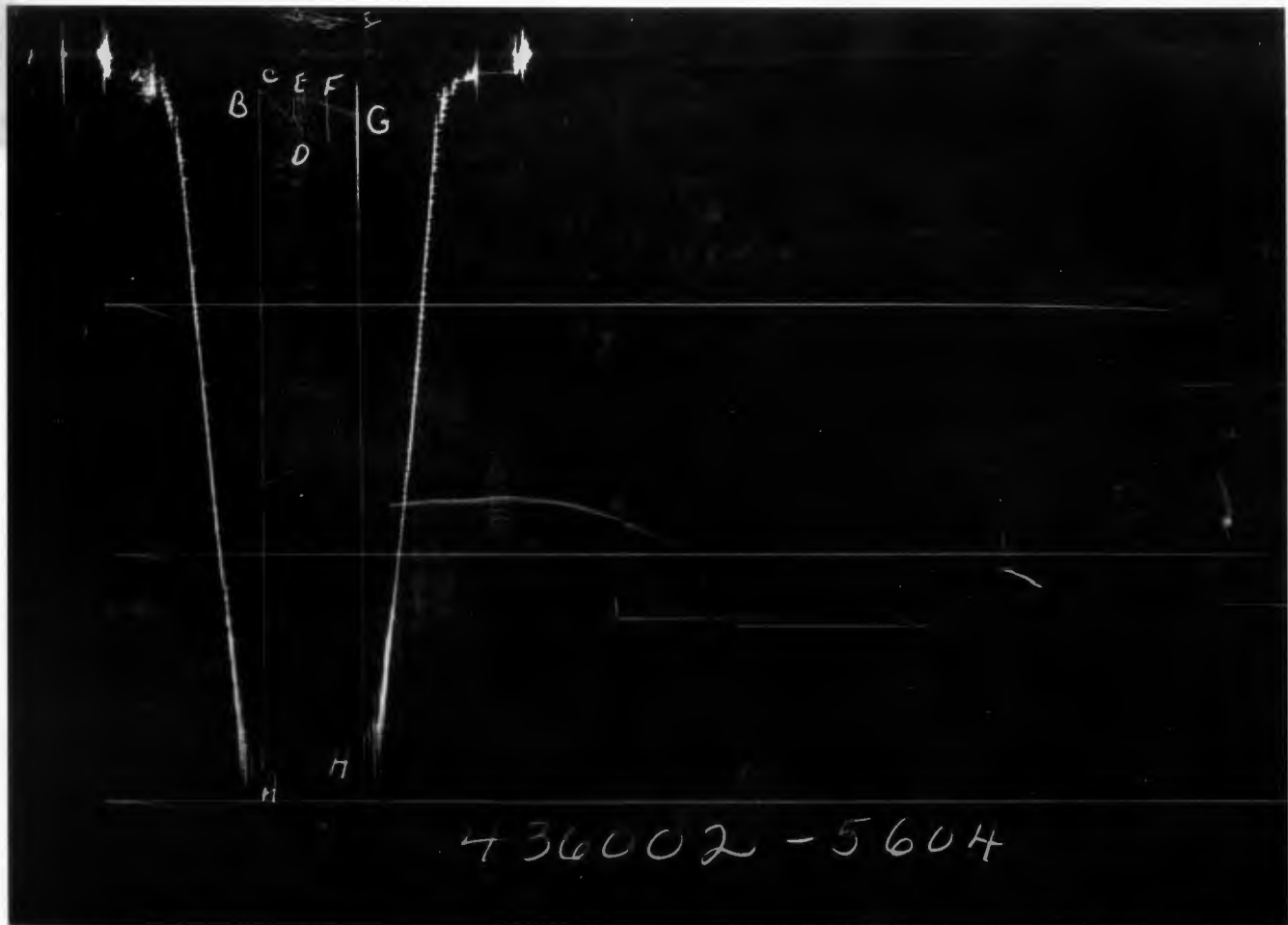
5-34-22W



436002 - 5605

GAUGE NO: 5605 DEPTH: 5480.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2711	2730.7			
B	INITIAL FIRST FLOW	41	47.2			
C	FINAL FIRST FLOW	41	53.6	10.0	10.0	F
C	INITIAL FIRST CLOSED-IN	41	53.6			
D	FINAL FIRST CLOSED-IN	165	152.9	30.0	30.0	C
E	INITIAL SECOND FLOW	72	83.7			
F	FINAL SECOND FLOW	82	80.5	30.0	30.0	F
F	INITIAL SECOND CLOSED-IN	82	80.5			
G	FINAL SECOND CLOSED-IN	134	136.8	45.0	45.0	C
H	FINAL HYDROSTATIC	2608	2643.5			



GAUGE NO: 5604 DEPTH: 5693.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2824	2840.9			
B	INITIAL FIRST FLOW	124	148.0	10.0	10.0	F
C	FINAL FIRST FLOW	134	160.4			
C	INITIAL FIRST CLOSED-IN	134	160.4	30.0	30.0	C
D	FINAL FIRST CLOSED-IN	289	265.9			
E	INITIAL SECOND FLOW	175	181.1	30.0	30.0	F
F	FINAL SECOND FLOW	185	207.0			
F	INITIAL SECOND CLOSED-IN	185	207.0	45.0	45.0	C
G	FINAL SECOND CLOSED-IN	227	243.2			
H	FINAL HYDROSTATIC	2720	2734.3			

EQUIPMENT & HOLE DATAFORMATION TESTED: MISSISSIPPINET PAY (ft): 12.0GROSS TESTED FOOTAGE: 174.0ALL DEPTHS MEASURED FROM: KELLY BUSHING

CASING PERFS. (ft): _____

HOLE OR CASING SIZE (in): 7.875ELEVATION (ft): 1940.0TOTAL DEPTH (ft): 5696.0PACKER DEPTH(S) (ft): 5495. 5522

FINAL SURFACE CHOKE (in): _____

BOTTOM HOLE CHOKE (in): 0.750MUD WEIGHT (lb/gal): 9.40MUD VISCOSITY (sec): 58

ESTIMATED HOLE TEMP. (°F): _____

ACTUAL HOLE TEMP. (°F): 122 @ 5691.0 ftTICKET NUMBER: 43600200DATE: 2-12-86 TEST NO: 1TYPE DST: OPEN HOLEHALLIBURTON CAMP:
PRATTTESTER: L.R. PARKERWITNESS: J. NEVESDRILLING CONTRACTOR:
EAGLE DRILLING INCORPORATED**FLUID PROPERTIES FOR
RECOVERED MUD & WATER**

SOURCE	RESISTIVITY	CHLORIDES
PIT	<u>0.280 @ 75 °F</u>	<u>13000 ppm</u>
TOP	<u>0.280 @ 75 °F</u>	<u>13230 ppm</u>
BOTTOM	<u>0.280 @ 75 °F</u>	<u>13860 ppm</u>
SAMPLER TOOL	<u>0.260 @ 75 °F</u>	<u>14500 ppm</u>
	<u> @ °F</u>	<u> ppm</u>
	<u> @ °F</u>	<u> ppm</u>

SAMPLER DATA

Psig AT SURFACE: 0.5
 cu.ft. OF GAS: 0.001
 cc OF OIL: _____
 cc OF WATER: _____
 cc OF MUD: 2239.0
 TOTAL LIQUID cc: 2239.0

HYDROCARBON PROPERTIES

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

CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED:

120' OF DRILLING MUD

MEASURED FROM
TESTER VALVE**REMARKS:**

FLUID PROPERTIES: (CONTINUED)

PIT SAMPLE:	TOP	BOTTOM	SAMPLER
SP. GR.=1.0148	SP. GR.=1.0150	SP. GR.=1.0158	SP. GR.=1.0165
IRON=NEG.	IRON=NEG.	IRON=NEG.	IRON=NEG.
PH=10	PH=10	PH=10	PH=10
CALCIUM=110	CALCIUM=112	CALCIUM=11 ???	CALCIUM=115
MG=NEG.	MG=NEG.	MG=NEG.	MG=NEG.
SO4=NEG.	SO4=NEG.	SO4=NEG.	SO4=NEG.

TICKET NO. 43600200

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	5075.0	
3		DRILL COLLARS.....	6.250	2.250	269.0	
50		IMPACT REVERSING SUB.....	6.000	2.750	1.0	5344.0
3		DRILL COLLARS.....	6.250	2.250	120.0	
5		CROSSOVER.....	6.000	2.250	1.0	
13		DUAL CIP SAMPLER.....	5.000	0.750	8.0	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	5478.0
80		AP RUNNING CASE.....	5.000	2.250	4.0	5480.0
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	3.0	
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	5495.0
5		CROSSOVER.....	6.000	2.250	1.5	
11		HANDLING SUB & CHOKE ASSEMBLY...	5.750	3.750	5.0	
11		HANDLING SUB & CHOKE ASSEMBLY...	5.750	3.750	5.0	
5		CROSSOVER.....	6.000	2.250	1.5	
80		AP RUNNING CASE.....	5.000	2.250	4.0	5511.0
80		AP RUNNING CASE.....	5.000	2.250	4.0	5515.0
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	5522.0
5		CROSSOVER.....	6.000	2.250	1.0	
3		DRILL COLLARS.....	6.250	2.250	150.0	
5		CROSSOVER.....	6.000	2.250	1.0	
5		CROSSOVER.....	6.000	2.250	1.0	
20		FLUSH JOINT ANCHOR.....	5.000	2.370	13.0	
83		HT-500 TEMPERATURE CASE.....	5.000		2.0	5691.0
81		BLANKED-OFF RUNNING CASE.....	5.000		4.0	5693.0
TOTAL DEPTH					5696.0	

EQUIPMENT DATA

TEMPERATURE RECORDER CHART



10° each circle

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

$$S = 1.151 \left[\frac{m(P^*) - m(P_f)}{m} - \text{LOG} \left(\frac{k(t/60)}{\phi \mu c_f r_w^2} \right) + 3.23 \right] \text{ ---}$$

Damage Ratio

$$DR = \frac{m(P^*) - m(P_f)}{m(P^*) - m(P_f) - 0.87 mS} \text{ ---}$$

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

$$r_i = 0.032 \sqrt{\frac{k(t/60)}{\phi \mu c_f}}$$

ft