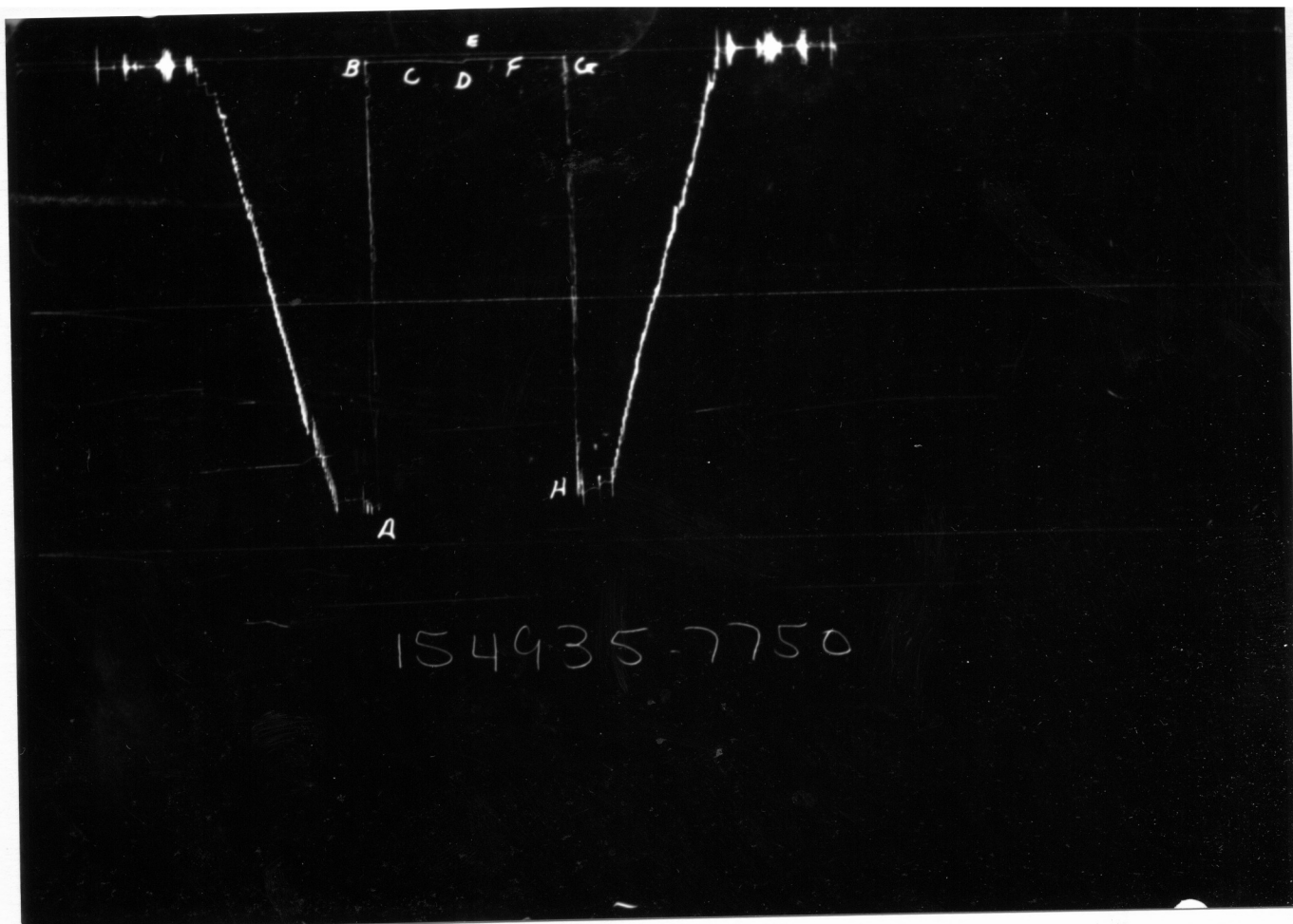




TICKET NO. 15493500
31-MAR-82

FORMATION TESTING SERVICE REPORT

STRICKLAND		1	1	3702.1 - 3735.1	R.R.A. INCORPORATED	
LEASE NAME		WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME	
LEGAL LOCATION	SW SW SE 28 34 1E	FIELD AREA	PORTLAND	COUNTY	SUMNER	STATE KANSAS P/J
SEC. - TWP. - RNC.						

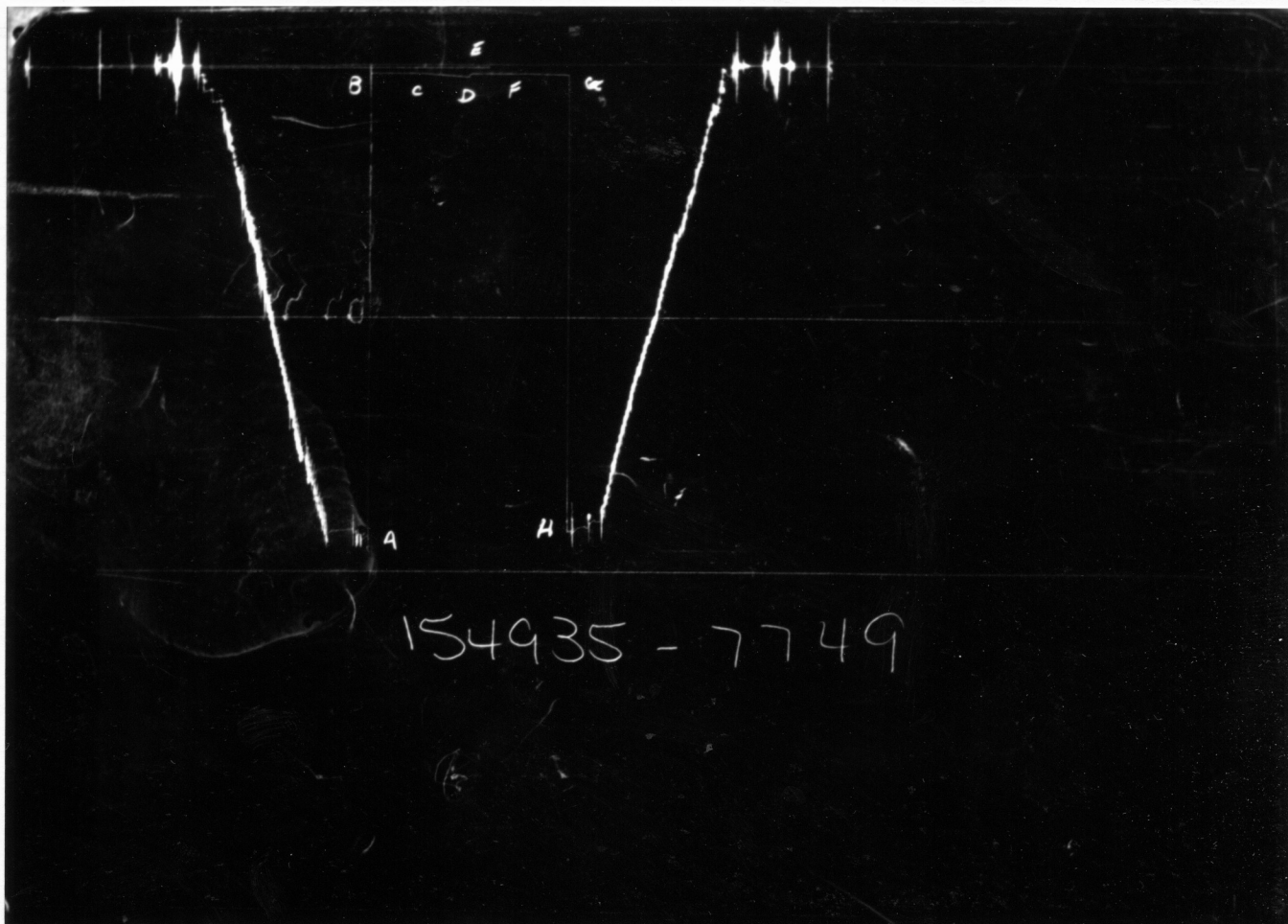


GAUGE NO: 7750

DEPTH: 3689.0

BLANKED OFF: NO

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1812.0			
B	INITIAL FIRST FLOW		6.2			
C	FINAL FIRST FLOW		2.7	30.0	30.0	F
C	INITIAL FIRST CLOSED-IN		2.7			
D	FINAL FIRST CLOSED-IN		15.8	30.0	30.0	C
E	INITIAL SECOND FLOW		4.3			
F	FINAL SECOND FLOW		1.3	30.0	30.0	F
F	INITIAL SECOND CLOSED-IN		1.3			
G	FINAL SECOND CLOSED-IN		3.4	30.0	30.0	C
H	FINAL HYDROSTATIC		1795.5			



GAUGE NO: 7749

DEPTH: 3732.0

BLANKED OFF: YES

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1838.7			
B	INITIAL FIRST FLOW		32.8			
C	FINAL FIRST FLOW		34.1	30.0	30.0	F
C	INITIAL FIRST CLOSED-IN		34.1			
D	FINAL FIRST CLOSED-IN		49.5	30.0	30.0	C
E	INITIAL SECOND FLOW		39.9			
F	FINAL SECOND FLOW		36.1	30.0	30.0	F
F	INITIAL SECOND CLOSED-IN		36.1			
G	FINAL SECOND CLOSED-IN		41.9	30.0	30.0	C
H	FINAL HYDROSTATIC		1832.6			

EQUIPMENT & HOLE DATA

FORMATION TESTED: MISSISSIPPI CHERT
NET PAY (ft): _____
GROSS TESTED FOOTAGE: 33.0
ALL DEPTHS MEASURED FROM: R. KELLY BUSHING
CASING PERFS. (ft): _____
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 0
TOTAL DEPTH (ft): 3735.0
PACKER DEPTH(S) (ft): 3696, 3702
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): 107
ACTUAL HOLE TEMP. (°F): 123 @ 3730.0 ft

TICKET NUMBER: 15493500

DATE: 3-26-82 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP:
WINFIELD

TESTER: MR. POTTER
MR. TERNES

WITNESS: MAURICE HOOVER

DRILLING CONTRACTOR:
R.R.A. INCORPORATED

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:

10 FEET OF MUD....

MEASURED FROM
TESTER VALVE

REMARKS:

SEE PRODUCTION TEST DATA SHEET....

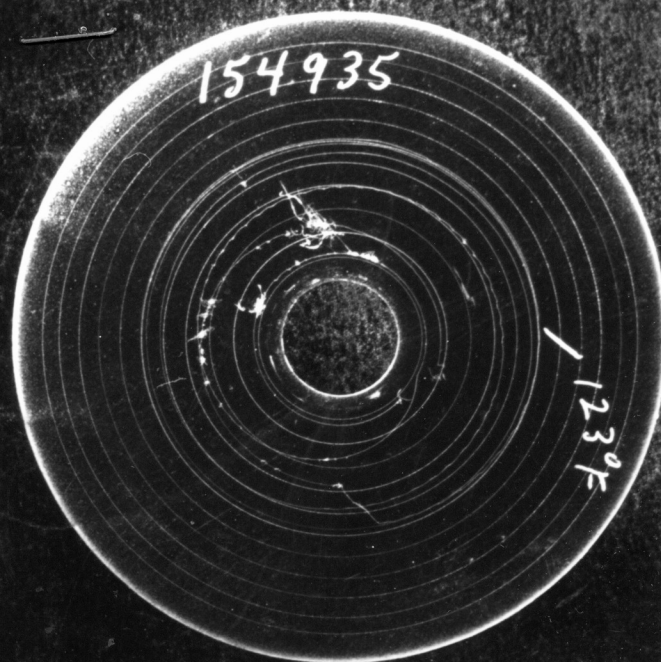
MERLA

[illegible]

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	3530.00	
3		DRILL COLLARS.....	6.250	2.250	93.00	
50		IMPACT REVERSING SUB.....	5.030	2.000	1.00	3610.00
3		DRILL COLLARS.....	6.250	2.250	62.00	
11		HANDLING SUB & CHOKE ASSEMBLY...	5.870	3.000	4.66	
12		DUAL CIP VALVE.....	5.030	0.670	4.88	
60		HYDROSPRING TESTER.....	5.000	0.750	4.74	3687.00
80		AP RUNNING CASE.....	5.000	2.250	4.12	3689.00
70		OPEN HOLE PACKER.....	6.750	1.530	5.77	3696.00
70		OPEN HOLE PACKER.....	6.750	1.530	5.77	3702.00
20		FLUSH JOINT ANCHOR.....	5.000	2.370	26.00	
83		HT-500 TEMPERATURE CASE.....	5.000	0.000	1.51	3730.00
81		BLANKED-OFF RUNNING CASE.....	5.000	2.440	3.27	3732.00
TOTAL DEPTH					3735.00	

EQUIPMENT DATA

TEMPERATURE RECORDER CHART



10° each circle

Indicated Flow
Capacity

$$kh = \frac{1637 Q_g T}{m}$$

md-ft

Average Effective
Permeability

$$k = \frac{kh}{h}$$

md

Skin Factor

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

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

$$r_i = 0.032 \sqrt{\frac{kt}{\phi \mu c_t}}$$

ft