

SAMUEL GARY JR. AND ASSOCIATES

LEASE : LEMON

WELL NO.: 14-10

TEST NO.: 1

TICKET NO. 00827301

07-OCT-90

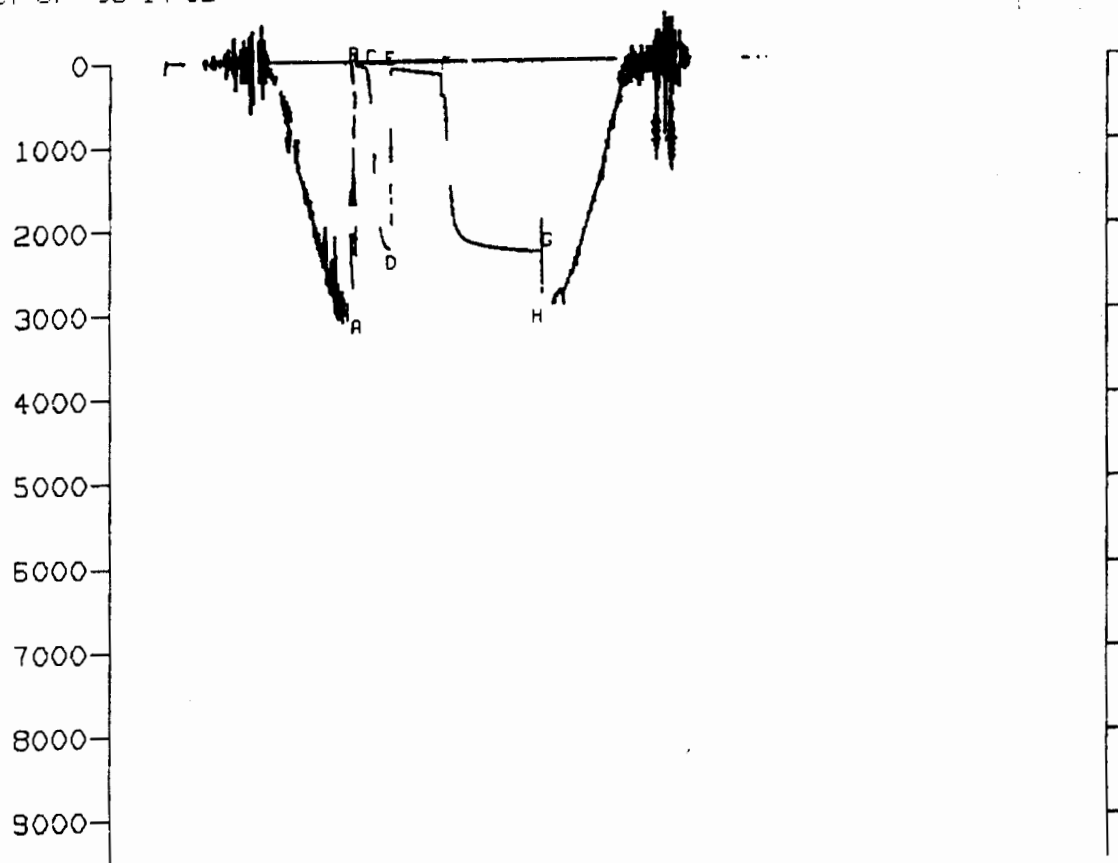
ENID.

RECEIVED
STATE COMMISSION FOR REGULATION

AUG - 6 1990

CHIEF OF DIVISION
VICTIM, Kansas

LEGAL LOCATION SEC. - TWP. - RNG.	S. 14 - T. 34 S. - R. 20 W.	FIELD AREA	SOUTH PROTECTION	COUNTY	COMBICHE	STATE	KANSAS	DDF
LEASE NAME	14-10	WELL NO.	TEST NO.	TESTED INTERVAL	6105.2 - 6135.0	LEASE OWNER/COMPANY NAME	SAMUEL GARY JR. AND ASSOCIATES	



GAUGE NO: 1912 DEPTH: 6084.3 BLANKED OFF: NO HOUR OF CLOCK: 24

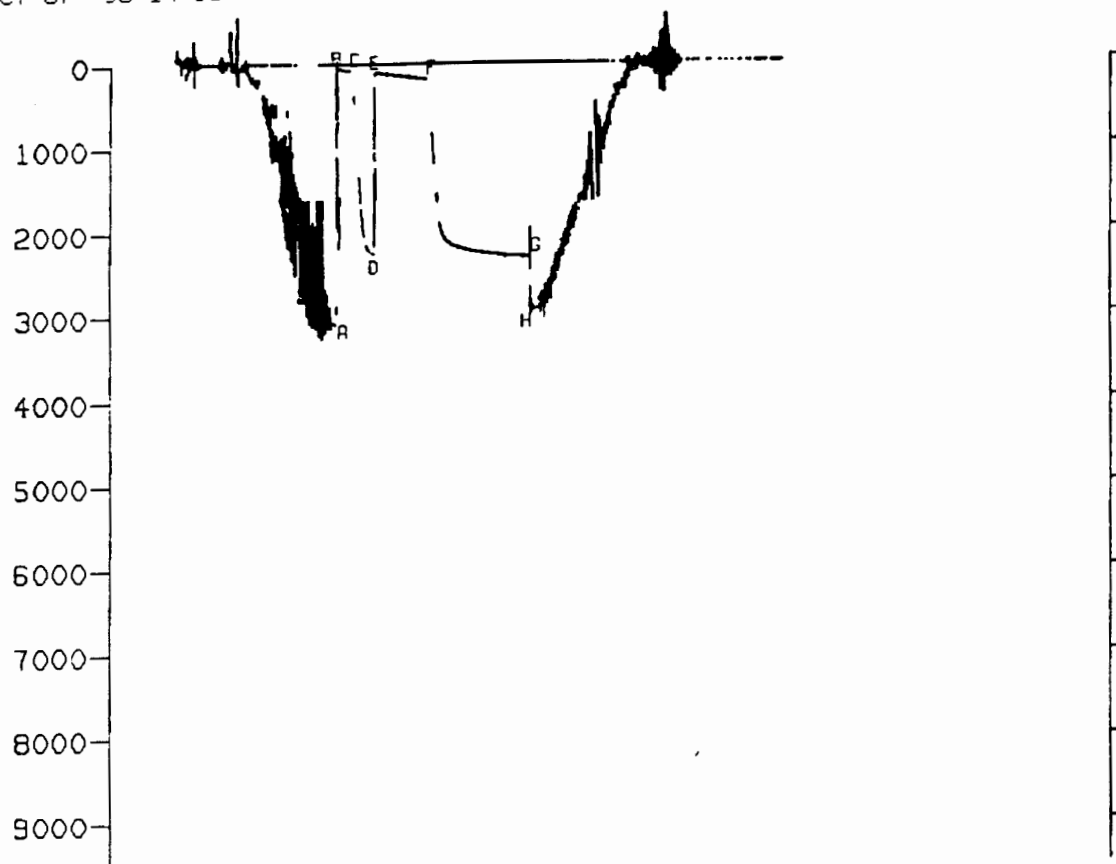
ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		3014.7			
B	INITIAL FIRST FLOW		45.4			
C	FINAL FIRST FLOW		84.4	20.0	20.0	F
C	INITIAL FIRST CLOSED-IN		84.4			
D	FINAL FIRST CLOSED-IN		2260.5	40.0	39.7	C
E	INITIAL SECOND FLOW		104.7			
F	FINAL SECOND FLOW		172.3	80.0	79.7	F
F	INITIAL SECOND CLOSED-IN		172.3			
G	FINAL SECOND CLOSED-IN		2304.7	160.0	160.6	C
H	FINAL HYDROSTATIC		2912.5			

RECEIVED
STATE OF KANSAS DEPARTMENT OF REVENUE

AUG - 6 1990

CORRELATION DIVISION
Wichita, Kansas

111



GAUGE NO: 162 DEPTH: 6132.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		3048.0			
B	INITIAL FIRST FLOW		57.2			
C	FINAL FIRST FLOW		85.9	20.0	20.0	F
C	INITIAL FIRST CLOSED-IN		85.9			
D	FINAL FIRST CLOSED-IN		2285.8	40.0	39.7	C
E	INITIAL SECOND FLOW		118.4			
F	FINAL SECOND FLOW		185.4	80.0	79.7	F
F	INITIAL SECOND CLOSED-IN		185.4			
G	FINAL SECOND CLOSED-IN		2326.9	160.0	160.5	C
H	FINAL HYDROSTATIC		2943.7			

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STATE COMMISSION

AUG - 6 1990

CONSERVATION DIVISION
Wichita, Kansas

EQUIPMENT & HOLE DATAFORMATION TESTED: VIOLANET PAY (ft): 8.0GROSS TESTED FOOTAGE: 29.8ALL DEPTHS MEASURED FROM: K.B.CASING PERFS. (ft): HOLE OR CASING SIZE (in): 7.800ELEVATION (ft): 1767.0 K.B.TOTAL DEPTH (ft): 6135.0PACKER DEPTH(S) (ft): 6099. 6105FINAL SURFACE CHOKE (in): BOTTOM HOLE CHOKE (in): 0.750MUD WEIGHT (lb/gal): 8.80MUD VISCOSITY (sec): 56ESTIMATED HOLE TEMP. (°F): 131ACTUAL HOLE TEMP. (°F): @ ftTICKET NUMBER: 00827301DATE: 10-7-90 TEST NO: 1TYPE DST: OPEN HOLEFIELD CAMP: ENID.TESTER: CHARLES E. ANDERSONWITNESS: STAN NISSEN
TIM MCCOYDRILLING CONTRACTOR: TRIAD DRILLING RIG NO 19**FLUID PROPERTIES FOR
RECOVERED MUD & WATER**

SOURCE	RESISTIVITY	CHLORIDES
MUD PIT	0.207 @ 65 °F	16500 ppm
SAMPLER	0.080 @ 65 °F	19833 ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm

HYDROCARBON PROPERTIES
OIL GRAVITY (°API): @ °F
GAS/OIL RATIO (cu.ft. per bbl):
GAS GRAVITY:
SAMPLER DATA
P_{sig} AT SURFACE: 100.0
cu.ft. OF GAS:
cc OF OIL:
cc OF WATER: 1700.0
cc OF MUD:
TOTAL LIQUID cc: 1700.0
CUSHION DATA
TYPE AMOUNT WEIGHT

RECOVERED :
275 FT TOTAL RECOVERY:
245 FT MUD
30 FT MUD FILTRATE

MEASURED FROM
TESTER VALVE
REMARKS :

TESTER REPORTED SAMPLER MANDREL WAS PLUGGED OFF WITH L.C.M.

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STATE OF KANSAS COMMISSION

AUG - 6 1990

OCCUPATION DIVISION
Wichita, Kansas

[illegible]

TICKET NO: 00827301

CLOCK NO: 8533 HOUR: 24

GAUGE NO: 1912

DEPTH: 6084.3

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta P}{t + \Delta P}$	$\log \frac{t + \Delta P}{\Delta P}$
FIRST FLOW					
B 1	0.0	45.4			
2	2.0	46.0	0.6		
3	3.0	46.3	0.3		
4	4.0	49.1	2.8		
5	5.0	51.6	2.5		
6	6.0	53.6	2.0		
7	7.0	55.1	1.5		
8	8.0	56.0	0.9		
9	9.0	57.8	1.8		
10	10.0	59.4	1.6		
11	11.0	61.7	2.3		
12	12.0	63.9	2.3		
13	13.0	64.9	1.0		
14	14.0	66.0	1.1		
15	15.0	72.2	6.2		
16	16.0	73.0	0.8		
17	17.0	73.8	0.8		
18	18.0	74.6	0.8		
19	19.0	78.9	4.3		
C 20	20.0	84.4	5.5		

FIRST CLOSED-IN

1	0.0	84.4			
2	1.0	133.3	48.9	1.0	1.322
3	2.0	160.5	76.0	1.8	1.041
4	3.0	199.9	115.5	2.6	0.885
5	4.0	253.1	168.6	3.3	0.778
6	5.0	315.3	230.9	4.0	0.699
7	6.0	376.7	292.3	4.6	0.637
8	7.0	455.5	371.4	5.2	0.586
9	12.0	1087.2	1002.7	7.5	0.425
10	14.0	1338.4	1254.0	8.2	0.385
11	22.0	1996.3	1911.9	10.5	0.281
12	24.0	2095.3	2010.8	10.9	0.263
13	26.0	2146.6	2062.2	11.3	0.248
14	28.0	2178.8	2094.3	11.7	0.234
15	30.0	2207.4	2123.0	12.0	0.222
16	35.0	2243.0	2158.6	12.7	0.195
D 17	39.7	2260.5	2176.0	13.3	0.177

SECOND FLOW

E 1	0.0	104.7			
2	4.0	94.4	-10.3		
3	8.0	99.6	5.1		
4	12.0	104.7	5.2		
5	16.0	108.7	4.0		
6	20.0	111.0	2.3		
7	24.0	116.6	5.7		

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta P}{t + \Delta P}$	$\log \frac{t + \Delta P}{\Delta P}$
SECOND FLOW - CONTINUED					
8	28.0	119.6	3.0		
9	32.0	125.2	5.6		
10	36.0	129.9	4.6		
11	40.0	133.7	3.9		
12	44.0	136.4	2.6		
13	48.0	141.7	5.4		
14	52.0	146.3	4.6		
15	56.0	149.7	3.4		
16	60.0	153.0	3.3		
17	64.0	156.7	3.7		
18	68.0	151.4	4.7		
19	72.0	164.6	3.2		
20	76.0	168.9	4.2		
F 21	79.7	172.3	3.5		

SECOND CLOSED-IN

F 1	0.0	172.3			
2	5.0	425.6	253.3	4.8	1.321
3	6.0	476.9	304.6	5.7	1.246
4	7.0	569.8	397.4	6.5	1.183
5	8.0	714.0	541.7	7.4	1.129
6	9.0	850.3	677.9	8.3	1.082
7	10.0	975.3	803.0	9.1	1.041
8	16.0	1592.7	1420.4	13.8	0.859
9	18.0	1702.3	1530.0	15.2	0.816
10	20.0	1853.3	1681.0	16.7	0.777
11	22.0	1937.9	1765.6	18.0	0.743
12	24.0	1953.2	1820.9	19.3	0.712
13	26.0	2036.5	1864.2	20.6	0.685
14	28.0	2066.3	1894.0	21.9	0.659
15	30.0	2091.1	1918.8	23.1	0.636
16	35.0	2130.6	1958.2	25.9	0.585
17	40.0	2157.5	1985.2	28.6	0.543
18	45.0	2176.6	2004.3	31.0	0.507
19	50.0	2191.6	2019.3	33.3	0.476
20	55.0	2205.8	2033.5	35.5	0.449
21	60.0	2215.6	2043.3	37.5	0.425
22	70.0	2231.7	2059.3	41.1	0.385
23	80.0	2246.9	2074.6	44.4	0.352
24	90.0	2259.7	2087.3	47.3	0.324
25	100.0	2268.6	2096.3	49.9	0.300
26	110.0	2277.5	2105.2	52.3	0.280
27	120.0	2284.2	2111.9	54.5	0.263
28	135.0	2293.9	2121.6	57.4	0.240
29	150.0	2300.8	2128.5	59.9	0.221
G 30	160.6	2304.7	2132.4	61.5	0.210

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STATE COMMISSION

AUG - 6 1990

REMARKS:

COMPLETION DIVISION
Wichita, Kansas

TICKET NO: 00827301

GAUGE NO: 162

CLOCK NO: 6607 HOUR: 24

DEPTH: 6132.0

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta}{t + \Delta}$	$\log \frac{t + \Delta}{\Delta}$
FIRST FLOW					
B 1	0.0	57.2			
2	1.0	62.7	5.5		
3	2.0	62.9	0.2		
4	3.0	60.8	-2.1		
5	4.0	61.4	0.6		
6	5.0	63.4	2.0		
7	6.0	63.9	0.5		
8	7.0	64.8	0.9		
9	8.0	65.7	0.9		
10	9.0	66.2	0.5		
11	10.0	66.8	0.7		
12	11.0	69.0	2.1		
13	12.0	71.6	2.7		
14	13.0	73.1	1.5		
15	14.0	76.0	2.9		
16	15.0	79.8	3.8		
17	16.0	81.3	1.6		
18	17.0	81.5	0.3		
19	18.0	82.4	0.8		
20	19.0	84.7	2.3		
C 21	20.0	85.9	1.2		

FIRST CLOSED-IN

C 1	0.0	85.9			
2	7.0	399.9	314.0	5.2	0.586
3	8.0	458.5	382.6	5.7	0.544
4	16.0	1480.2	1394.3	8.9	0.352
5	18.0	1711.8	1625.9	9.5	0.325
6	20.0	1907.8	1821.9	10.0	0.301
7	22.0	2023.7	1937.8	10.5	0.281
8	28.0	2202.0	2116.1	11.7	0.234
9	30.0	2229.9	2144.0	12.0	0.222
10	37.0	2278.4	2192.5	13.0	0.188
D 11	39.7	2285.8	2199.9	13.3	0.177

SECOND FLOW

E 1	0.0	118.4			
2	4.0	108.5	-9.9		
3	8.0	112.4	3.9		
4	12.0	116.2	3.9		
5	16.0	119.3	3.1		
6	20.0	124.4	5.1		
7	24.0	129.2	4.8		
8	28.0	134.7	5.5		
9	32.0	136.8	2.1		
10	36.0	142.3	5.5		
11	40.0	145.4	3.0		
12	44.0	151.1	5.7		

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta}{t + \Delta}$	$\log \frac{t + \Delta}{\Delta}$
SECOND FLOW - CONTINUED					
13	48.0	153.4	2.4		
14	52.0	158.9	5.4		
15	56.0	161.9	3.1		
16	60.0	165.6	3.7		
17	64.0	170.8	5.2		
18	68.0	174.4	3.6		
19	72.0	178.9	4.5		
20	76.0	182.4	3.5		
F 21	79.7	185.4	3.0		

SECOND CLOSED-IN

F 1	0.0	185.4			
2	9.0	821.0	635.6	8.2	1.083
3	10.0	946.6	761.3	9.1	1.040
4	12.0	1216.9	1031.5	10.7	0.969
5	16.0	1582.4	1397.1	13.8	0.859
6	20.0	1866.7	1681.3	16.7	0.777
7	22.0	1959.8	1774.5	18.0	0.743
8	24.0	2022.8	1837.4	19.3	0.712
9	26.0	2064.2	1878.8	20.6	0.685
10	28.0	2092.1	1906.7	21.9	0.659
11	30.0	2114.9	1929.6	23.1	0.635
12	35.0	2155.2	1969.9	25.9	0.585
13	40.0	2182.7	1997.4	28.6	0.543
14	45.0	2200.9	2015.5	31.0	0.507
15	50.0	2216.9	2031.5	33.3	0.476
16	55.0	2228.2	2042.8	35.5	0.449
17	60.0	2239.3	2053.9	37.5	0.425
18	70.0	2257.2	2071.8	41.1	0.385
19	80.0	2270.8	2085.5	44.4	0.352
20	90.0	2282.2	2096.9	47.3	0.324
21	100.0	2292.2	2106.9	49.9	0.300
22	110.0	2300.4	2115.0	52.3	0.280
23	120.0	2313.2	2127.8	54.5	0.263
24	135.0	2321.1	2135.8	57.4	0.240
25	150.0	2324.4	2139.1	59.9	0.221
G 26	160.6	2326.9	2141.5	61.5	0.210

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STATE COMMISSION ON COMMISSION

AUG - 6 1990

REMARKS:

Wichita, Kansas

TICKET NO. 00827301

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.825	5505.3	
3		DRILL COLLARS.....	6.000	2.500	560.0	
5		CROSSOVER.....	5.750	2.870	0.7	
50		IMPACT REVERSING SUB.....	5.750	2.750	1.0	5056.0
11		HANDLING SUB & CHOKE ASSEMBLY...	5.750	2.250	4.6	
13		DUAL CIP SAMPLER.....	5.000	0.750	6.9	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	5082.4
80		AP RUNNING CASE.....	5.000	2.250	4.1	5084.3
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	2.8	
70		OPEN HOLE PACKER.....	6.750	1.530	5.8	5099.4
70		OPEN HOLE PACKER.....	6.750	1.530	5.8	5105.2
		FLUSH JOINT ANCHOR.....	5.000	2.370	24.0	
81		BLANKED-OFF RUNNING CASE.....	5.000		4.1	5132.0
TOTAL DEPTH					5135.0	

EQUIPMENT DATA

RECEIVED
STATE OF KANSAS COMMISSION

AUG - 6 1980

STATE OF KANSAS
Geological Survey
Topeka, Kansas

SAMUEL GARY JR. AND ASSOCIATES

LEASE : LEMON

WELL NO.: 14-10

TEST NO.: 2

TICKET NO. 00827401
07-OCT-90
ENID.

LEASE NAME	LEMON	WELL NO	14-10	TEST NO	2	TESTED INTERVAL	6105.0 - 6135.0	LEASE OWNER/COMPANY NAME	SAMUEL GARY JR. AND ASSOCIATES
LEGAL LOCATION	S 14 - T 34 S - R 20 W	FIELD	GREEN	PROTECTION	SOUTH PROTECTION	COUNTY	COMANCHE	STATE	KANSAS
SEC. - TWP. - RNG.									DDF

RECEIVED
STATE COMMISSION

AUG - 6 - 90

COMMISSION DIVISION
Wichita, Kansas

EQUIPMENT & HOLE DATAFORMATION TESTED: VIOLATICKET NUMBER: 00827301NET PAY (ft): 8.0DATE: 10-7-90 TEST NO: 1GROSS TESTED FOOTAGE: 29.8TYPE DST: OPEN HOLEALL DEPTHS MEASURED FROM: K.B.

CASING PERFS. (ft): _____

FIELD CAMP:

HOLE OR CASING SIZE (in): 7.800ENID.ELEVATION (ft): 1767.0 K.B.TESTER: CHARLES E. ANDERSONTOTAL DEPTH (ft): 6135.0PACKER DEPTH(S) (ft): 6099. 6105

FINAL SURFACE CHOKE (in): _____

WITNESS: STAN NISSEN
TIM MCCOYBOTTOM HOLE CHOKE (in): 0.750MUD WEIGHT (lb/gal): 8.80MUD VISCOSITY (sec): 55ESTIMATED HOLE TEMP. (°F): 131

DRILLING CONTRACTOR:

ACTUAL HOLE TEMP. (°F): _____ @ _____ ft

TRIAD DRILLING, RIG NO. 19**FLUID PROPERTIES FOR
RECOVERED MUD & WATER**

SOURCE	RESISTIVITY	CHLORIDES
MUD PIT	0.207 @ 65 °F	16500 ppm
SAMPLER	0.080 @ 65 °F	19833 ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm

SAMPLER DATAP_{sig} AT SURFACE: 100.0

cu.ft. OF GAS: _____

cc OF OIL: _____

cc OF WATER: 1700.0

cc OF MUD: _____

TOTAL LIQUID cc: 1700.0**HYDROCARBON PROPERTIES**

OIL GRAVITY (°API): _____ @ _____ °F

GAS/OIL RATIO (cu.ft. per bbl): _____

GAS GRAVITY: _____

CUSHION DATA

TYPE AMOUNT WEIGHT

RECOVERED :

275 FT TOTAL RECOVERY

245 FT MUD

30 FT MUD FILTRATE

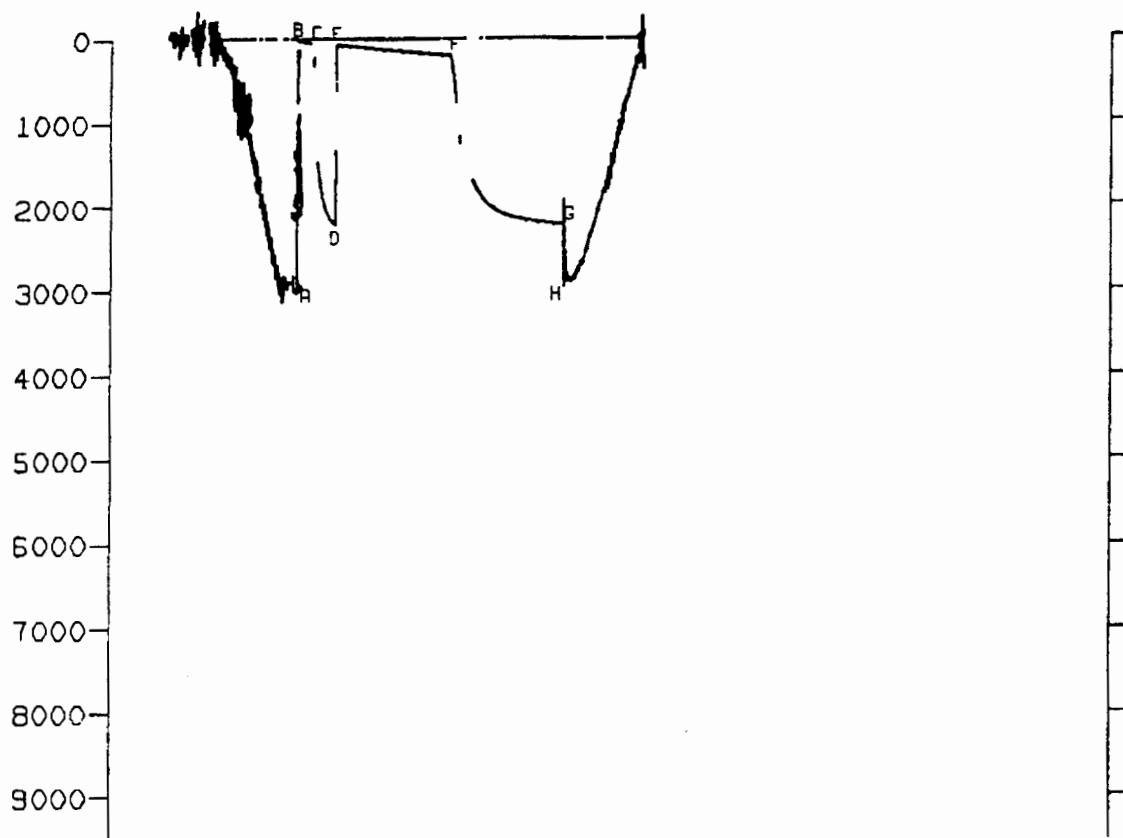
MEASURED FROM
TESTER VALVE**REMARKS :**

TESTER REPORTED SAMPLER MANDREL WAS PLUGGED OFF WITH L.C.M.

RECEIVED
STATE OF KANSAS COMMISSION

AUG - 6 1990

By _____
Geologist, Kansas



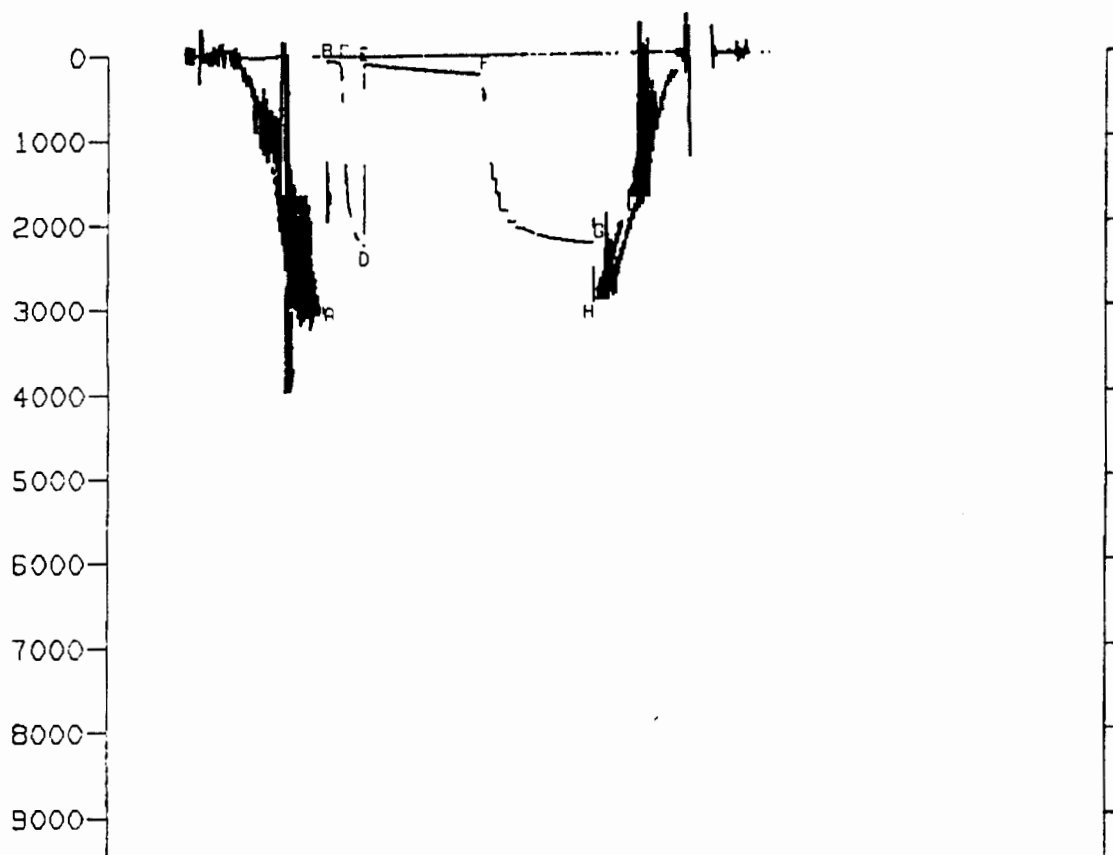
GAUGE NO: 1912 DEPTH: 6084.3 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		2914.7			
B	INITIAL FIRST FLOW		25.4			
C	FINAL FIRST FLOW		59.5	20.0	20.4	F
C	INITIAL FIRST CLOSED-IN		59.5	40.0	39.1	C
D	FINAL FIRST CLOSED-IN		2235.3			
E	INITIAL SECOND FLOW		75.6			
F	FINAL SECOND FLOW		213.5	180.0	179.9	F
F	INITIAL SECOND CLOSED-IN		213.5	180.0	180.6	C
G	FINAL SECOND CLOSED-IN		2240.9			
H	FINAL HYDROSTATIC		2901.3			

RECEIVED
STATE OF KANSAS, THE COMMISSION

AUG - 6 1990

DEPT. OF REVENUE
Topeka, Kansas



GAUGE NO: 162 DEPTH: 6132.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		2943.6			
B	INITIAL FIRST FLOW		66.2			
C	FINAL FIRST FLOW		85.7	20.0	20.4	F
C	INITIAL FIRST CLOSED-IN		85.7			
D	FINAL FIRST CLOSED-IN		2281.8	40.0	39.1	C
E	INITIAL SECOND FLOW		115.0			
F	FINAL SECOND FLOW		244.7	180.0	179.9	F
F	INITIAL SECOND CLOSED-IN		244.7			
G	FINAL SECOND CLOSED-IN		2279.2	180.0	180.6	C
H	FINAL HYDROSTATIC		2937.0			

RECEIVED
STATE OF KANSAS
DEPARTMENT OF TRANSPORTATION

AUG - 6 1990

CHIEF OF DIVISION
Wichita, Kansas

EQUIPMENT & HOLE DATA

FORMATION TESTED: VIOLA
 NET PAY (ft) 8.0
 GROSS TESTED FOOTAGE: 30.0
 ALL DEPTHS MEASURED FROM: K.E.
 CASING PERFS. (ft)
 HOLE OR CASING SIZE (in) 7.800
 ELEVATION (ft) 1767.0
 TOTAL DEPTH (ft) 5135.0
 PACKER DEPTH(S) (ft) 6098, 6105
 FINAL SURFACE CHOKE (in)
 BOTTOM HOLE CHOKE (in) 0.750
 MUD WEIGHT (lb/gal) 8.80
 MUD VISCOSITY (cp) 55
 ESTIMATED HOLE TEMP. (°F) 131
 ACTUAL HOLE TEMP. (°F): @ ft

TICKET NUMBER: 00827401DATE: 10-7-90 TEST NO: 2TYPE DST: OPEN HOLEFIELD CAMP:
ENIDTESTER: CHARLES E. ANDERSONWITNESS: STAN NISSEN
TIM MCCOYDRILLING CONTRACTOR:
TRIAD DRILLING, RIG NO. 19FLUID PROPERTIES FOR
RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
MUD BIT	0.207 @ 65 °F	17600 ppm
SAMPLES	0.084 @ 65 °F	119000 ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm

SAMPLER DATA

Psig AT SURFACE: 155.0
 cu.ft. OF GAS:
 cc OF OIL:
 cc OF WATER: 1925.0
 cc OF MUD:
 TOTAL LIQUID cc: 1925.0

HYDROCARBON PROPERTIES

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

CUSHION DATA

TYPE AMOUNT WEIGHT

RECOVERED:

150 FT MUD
 180 FT MUD CUT SALT WATER
 90 FT SALT WATER

MEASURED FROM
TESTER VALVE

REMARKS:

GAUGE NO. 162 STAIRSTEPPING DURING SECOND CLOSED-IN PERIOD.

RECEIVED
 STATE OF OKLAHOMA COMMISSION

AUG - 6 1990

OKLAHOMA DIVISION
 Oklahoma, Kansas

[illegible]

TICKET NO: 00827401

CLOCK NO: 8533 HOUR: 24

GAUGE NO: 1912

DEPTH: 6084.3

REF	MINUTES	PRESSURE	AP	$\frac{P-P_0}{\rho \cdot g}$	$\log \frac{P-P_0}{\rho \cdot g}$
FIRST FLOW					
B 1	0.0	25.4			
2	1.0	24.8	-0.6		
3	2.0	24.1	-0.7		
4	3.0	24.8	0.7		
5	4.0	26.0	1.2		
6	5.0	27.2	1.2		
7	6.0	32.8	5.6		
8	7.0	34.2	1.5		
9	8.0	35.7	1.5		
10	9.0	39.7	3.9		
11	10.0	41.4	1.7		
12	11.0	43.1	1.7		
13	12.0	44.6	1.5		
14	13.0	45.6	1.1		
15	14.0	45.8	0.1		
16	15.0	47.0	1.2		
17	16.0	48.5	1.5		
18	17.0	49.5	1.0		
19	18.0	51.1	1.6		
20	19.0	53.7	2.6		
21	20.0	57.8	4.2		
C 22	20.4	59.5	1.6		

FIRST CLOSED-IN					
C 1	0.0	59.5			
2	4.0	227.8	168.4	3.3	0.785
3	5.0	347.6	288.1	4.0	0.705
4	12.0	1596.2	1536.8	7.6	0.432
5	14.0	1713.3	1653.9	8.3	0.391
6	16.0	1825.1	1765.6	9.0	0.357
7	18.0	1912.1	1852.6	9.6	0.329
8	20.0	1976.5	1917.1	10.1	0.305
9	22.0	2033.6	1974.1	10.6	0.285
10	24.0	2076.6	2017.1	11.0	0.267
11	26.0	2113.1	2053.6	11.4	0.252
12	28.0	2146.9	2087.4	11.8	0.238
13	30.0	2169.5	2110.0	12.2	0.225
14	35.0	2210.4	2150.9	12.9	0.200
D 15	39.1	2235.3	2175.9	13.4	0.183

SECOND FLOW					
E 1	0.0	75.6			
2	9.0	77.1	1.5		
3	18.0	84.7	7.6		
4	27.0	95.9	11.2		
5	36.0	102.1	6.2		
6	45.0	111.8	9.6		
7	54.0	119.3	7.5		

REF	MINUTES	PRESSURE	AP	$\frac{P-P_0}{\rho \cdot g}$	$\log \frac{P-P_0}{\rho \cdot g}$
SECOND FLOW - CONTINUED					
8	63.0	126.4	7.1		
9	72.0	133.8	7.4		
10	81.0	140.2	6.4		
11	90.0	147.9	7.7		
12	99.0	154.7	6.7		
13	108.0	162.5	7.9		
14	117.0	168.1	5.5		
15	126.0	175.3	8.2		
16	135.0	180.8	4.5		
17	144.0	188.6	7.8		
18	153.0	195.4	6.8		
19	162.0	199.1	3.7		
20	171.0	206.5	7.4		
F 21	179.9	213.5	6.9		

SECOND CLOSED-IN					
F 1	0.0	213.5			
2	1.0	233.0	19.5	1.0	2.304
3	2.0	259.7	46.3	2.0	2.005
4	3.0	293.8	80.3	3.0	1.831
5	4.0	335.1	122.6	3.9	1.708
6	5.0	375.9	162.5	4.9	1.613
7	6.0	410.4	197.0	5.8	1.536
8	7.0	472.3	258.9	6.8	1.472
9	8.0	543.6	330.1	7.7	1.416
10	9.0	625.8	412.4	8.6	1.367
11	10.0	712.1	498.7	9.5	1.323
12	15.0	1202.0	988.6	14.8	1.131
13	18.0	1280.1	1066.7	16.5	1.084
14	40.0	1771.9	1558.4	33.3	0.779
15	45.0	1840.8	1627.4	36.7	0.737
16	50.0	1899.6	1686.1	40.0	0.700
17	55.0	1950.7	1737.2	43.2	0.667
18	60.0	1987.5	1774.0	46.2	0.637
19	70.0	2052.1	1838.6	51.9	0.587
20	80.0	2095.5	1882.0	57.2	0.545
21	90.0	2123.9	1910.4	62.1	0.509
22	100.0	2149.6	1936.2	66.7	0.478
23	110.0	2169.5	1956.0	71.0	0.450
24	120.0	2182.4	1968.9	75.0	0.426
25	135.0	2201.3	1987.8	80.6	0.395
26	150.0	2217.0	2003.5	85.8	0.368
27	165.0	2228.2	2014.7	90.5	0.345
G 28	180.6	2240.9	2027.5	95.0	0.324

STATE COMMISSION

AUG - 6 1990

SOUTH KANSAS COMMISSION
Wichita, Kansas

REMARKS:

TICKET NO: 00827401

GAUGE NO: 162

CLOCK NO: 6607 HOUR: 24

DEPTH: 6132.0

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0.0	66.2			
2	1.0	66.2	0.0		
3	2.0	64.6	-1.6		
4	3.0	65.8	1.2		
5	4.0	67.4	1.5		
6	5.0	68.3	0.9		
7	6.0	68.8	0.5		
8	7.0	68.6	-0.2		
9	8.0	70.9	2.3		
10	9.0	72.6	1.7		
11	10.0	73.0	0.4		
12	11.0	73.3	0.4		
13	12.0	74.0	0.6		
14	13.0	77.4	3.4		
15	14.0	79.4	2.1		
16	15.0	80.4	0.9		
17	16.0	81.3	0.9		
18	17.0	81.5	0.1		
19	18.0	80.7	-0.6		
20	19.0	83.2	2.5		
21	20.0	85.2	2.1		
C 22	20.4	85.7	0.4		

FIRST CLOSED-IN

C 1	0.0	85.7			
2	1.0	95.9	11.2	1.0	1.331
3	2.0	151.4	65.7	1.8	1.050
4	3.0	191.5	105.8	2.6	0.892
5	4.0	241.0	155.3	3.3	0.786
6	6.0	513.7	428.0	4.6	0.644
7	10.0	1389.6	1304.0	6.7	0.483
8	12.0	1593.3	1507.7	7.6	0.432
9	14.0	1717.6	1631.9	8.3	0.391
10	16.0	1841.4	1755.8	9.0	0.357
11	18.0	1928.2	1842.6	9.6	0.328
12	25.0	2145.4	2060.8	11.4	0.252
13	28.0	2180.9	2095.2	11.8	0.238
14	30.0	2210.7	2125.0	12.2	0.225
D 15	39.1	2261.8	2196.2	13.4	0.183

SECOND FLOW

E 1	0.0	115.0			
2	9.0	111.9	-3.1		
3	18.0	117.5	5.6		
4	27.0	127.5	10.1		
5	36.0	136.2	8.7		
6	45.0	142.9	6.7		

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND FLOW - CONTINUED					
7	54.0	150.9	8.0		
8	63.0	157.3	6.4		
9	72.0	163.2	5.9		
10	81.0	172.6	9.4		
11	90.0	179.6	7.0		
12	99.0	185.2	5.6		
13	108.0	191.7	6.5		
14	117.0	198.6	6.9		
15	126.0	206.1	7.5		
16	135.0	212.7	6.6		
17	144.0	219.3	6.6		
18	153.0	224.8	5.4		
19	162.0	231.7	7.0		
20	171.0	237.4	5.7		
F 21	179.9	244.7	7.2		

SECOND CLOSED-IN

F 1	0.0	244.7			
2	5.0	412.4	167.7	4.9	1.613
3	6.0	453.0	218.3	5.8	1.536
4	7.0	522.8	278.1	6.8	1.472
5	8.0	573.0	328.3	7.7	1.416
6	18.0	1317.4	1072.8	16.5	1.084
☐ 7	19.1	1357.0	1112.4	17.5	1.059
☐ 8	19.1	1501.0	1256.4	17.5	1.059
☐ 9	24.5	1519.7	1275.0	21.9	0.962
☐ 10	24.5	1658.4	1413.8	21.9	0.962
☐ 11	31.3	1689.2	1444.5	27.1	0.869
☐ 12	31.5	1877.0	1632.3	27.2	0.866
☐ 13	45.1	1894.6	1650.0	36.8	0.736
☐ 14	45.2	2009.8	1765.1	36.9	0.735
☐ 15	58.3	2027.4	1782.7	45.1	0.647
☐ 16	59.1	2095.7	1851.1	45.6	0.642
☐ 17	71.0	2109.0	1864.4	52.4	0.582
18	80.0	2136.6	1892.0	57.2	0.545
19	90.0	2166.9	1922.2	62.1	0.509
20	100.0	2190.2	1945.5	66.7	0.478
21	110.0	2207.3	1962.6	71.0	0.450
22	120.0	2223.4	1978.7	75.0	0.426
23	135.0	2239.8	1995.1	80.6	0.395
24	150.0	2256.9	2012.2	85.8	0.368
25	165.0	2267.5	2022.9	90.5	0.345
G 26	180.6	2279.2	2034.5	95.0	0.324

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STATE OF KANSAS COMMISSION

AUG - 6 1990

DO NOT WRITE IN THESE SPACES
Wichita, Kansas

LEGEND:
☐ STAIR-STEP

REMARKS:

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.825	5505.3	
3		DRILL COLLARS	6.000	2.500	560.0	
5		CROSSOVER.....	5.750	2.870	0.7	
50		IMPACT REVERSING SUB.....	5.750	2.750	1.0	6066.0
11		HANDLING SUB & CHOKE ASSEMBLY...	5.750	2.250	4.6	
13		DUAL CIP SAMPLER.....	5.000	0.750	6.9	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	6082.4
80		AP RUNNING CASE.....	5.000	2.250	4.1	6084.3
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	2.8	
70		OPEN HOLE PACKER.....	6.750	1.530	5.8	6099.4
70		OPEN HOLE PACKER.....	6.750	1.530	5.8	6105.2
20		FLUSH JOINT ANCHOR.....	5.000	2.370	24.0	
81		BLANKED-OFF RUNNING CASE.....	5.000		4.1	6132.0
TOTAL DEPTH					6135.0	

EQUIPMENT DATA