

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name #1 KACHELMAN Test No. 1 Date 5/4/92
Company KNIGHTON OIL CO., INC. Zone LKC-"B"
Address 710 PETROLEUM BLDG WICHITA KS 67202 Elevation 1971 K.B.
Co. Rep./Geo. DAVE MONTAGUE Cont. DUKE #2 Est. Ft. of Pay _____
Location: Sec. 11 Twp. 25S Rge. 14W Co. STAFFORE State KS

Interval Tested 3718-3727 Drill Pipe Size 4.5 XH
Anchor Length 9 Wt. Pipe I.D. - 2.7 Ft. Run 192
Top Packer Depth 3713 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3718 Mud Wt. 8.9 lb/Gal.
Total Depth 3727 Viscosity 47 Filtrate N/A

Tool Open @ 6:19 AM Initial Blow STRONG BLOW-OFF BOTTOM OF BUCKET IN 1 MINUTE
(NO BLOW BACK ON SHUTIN)

Final Blow _____

Recovery - Total Feet 75 Flush Tool? NO

Rec. 1525 Feet of GAS IN PIPE
Rec. 25 Feet of GASSY HEAVY OIL CUT MUD-10%GAS/33%OIL/57%MUD
Rec. 30 Feet of GASSY OIL CUT WTRY MUD-60%GAS/20%OIL/10%WTR//10%MUD
Rec. 20 Feet of MUDDY SALT WATER
Rec. _____ Feet of _____

BHT 109 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.14 @ 77.8 °F Chlorides 50000 ppm Recovery Chlorides 10000 ppm System

(A) Initial Hydrostatic Mud 1745.8 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 21.2 PSI @ (depth) 3726 w / Clock No. 19960

(C) First Final Flow Pressure 30.6 PSI AK1 Recorder No. 22150 Range 3925

(D) Initial Shut-in Pressure 831.4 PSI @ (depth) 3720 w / Clock No. 17640

(E) Second Initial Flow Pressure 40.5 PSI AK1 Recorder No. _____ Range _____

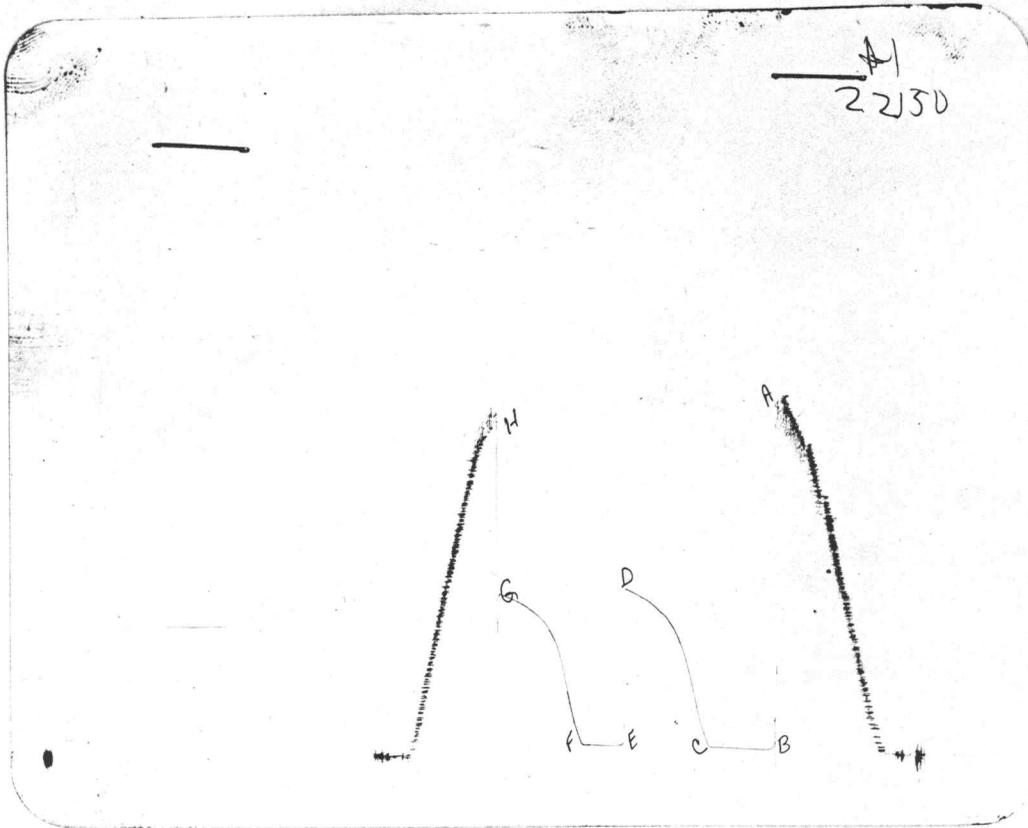
(F) Second Final Flow Pressure 56.9 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 804.5 PSI Initial Opening 45 Final Flow 30

(H) Final Hydrostatic Mud 1710.4 PSI Initial Shut-in 60 Final Shut-in 60

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
--	------------------	-------------------

(A) INITIAL HYDROSTATIC MUD	1744	1745.8
(B) FIRST INITIAL FLOW PRESSURE	19	21.2
(C) FIRST FINAL FLOW PRESSURE	29	30.6
(D) INITIAL CLOSED-IN PRESSURE	827	831.4
(E) SECOND INITIAL FLOW PRESSURE	38	40.5
(F) SECOND FINAL FLOW PRESSURE	48	56.9
(G) FINAL CLOSED-IN PRESSURE	798	804.5
(H) FINAL HYDROSTATIC MUD	1704	1710.4

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name #1 KACHELMAN Test No. 2 Date 5/5/92
Company KNIGHTON OIL CO., INC. Zone VIOLA
Address 710 PETROLEUM BLDG WICHITA KS 67202 Elevation 1971 K.B.
Co. Rep./Geo. DAVE MONTAGUE Cont. DUKE #2 Est. Ft. of Pay _____
Location: Sec. 11 Twp. 25S Rge. 14W Co. STAFFORE State KS

Interval Tested	<u>4127-4150</u>	Drill Pipe Size	<u>4.5 XH</u>
Anchor Length	<u>23</u>	Wt. Pipe I.D. - 2.7 Ft. Run	<u>192</u>
Top Packer Depth	<u>4122</u>	Drill Collar - 2.25 Ft. Run	_____
Bottom Packer Depth	<u>4127</u>	Mud Wt.	<u>8.9</u> lb/Gal.
Total Depth	<u>4150</u>	Viscosity	<u>42</u> Filtrate <u>16</u>

Tool Open @ 9:05 PM Initial Blow STRONG-GAS TO SURFACE 2 MINUTES GAUGED @1036 AT
END OF FLOW

Final Blow GAS TOO SMALL TO MEASURE WHEN TOOL OPENED-BUILT TO 863
AT 20 MINUTES/DECREASED TO 493 AT END OF FLOW

Recovery - Total Feet 659 Flush Tool? NO

Rec. <u>538</u>	Feet of	<u>GASSY OIL-50%GAS/50%OIL</u>
Rec. <u>121</u>	Feet of	<u>GASSY SLTLY OIL CUT MUD-30%GAS/10%OIL/60%MUD</u>
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____

BHT 118 °F Gravity 39 °API @ 70 °F Corrected Gravity 38 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2114.5 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 1031.1 PSI @ (depth) 4149 w / Clock No. 17640

(C) First Final Flow Pressure 827.5 PSI AK1 Recorder No. 22150 Range 3925

(D) Initial Shut-in Pressure 1374.5 PSI @ (depth) 4130 w / Clock No. 19960

(E) Second Initial Flow Pressure 936.0 PSI AK1 Recorder No. _____ Range _____

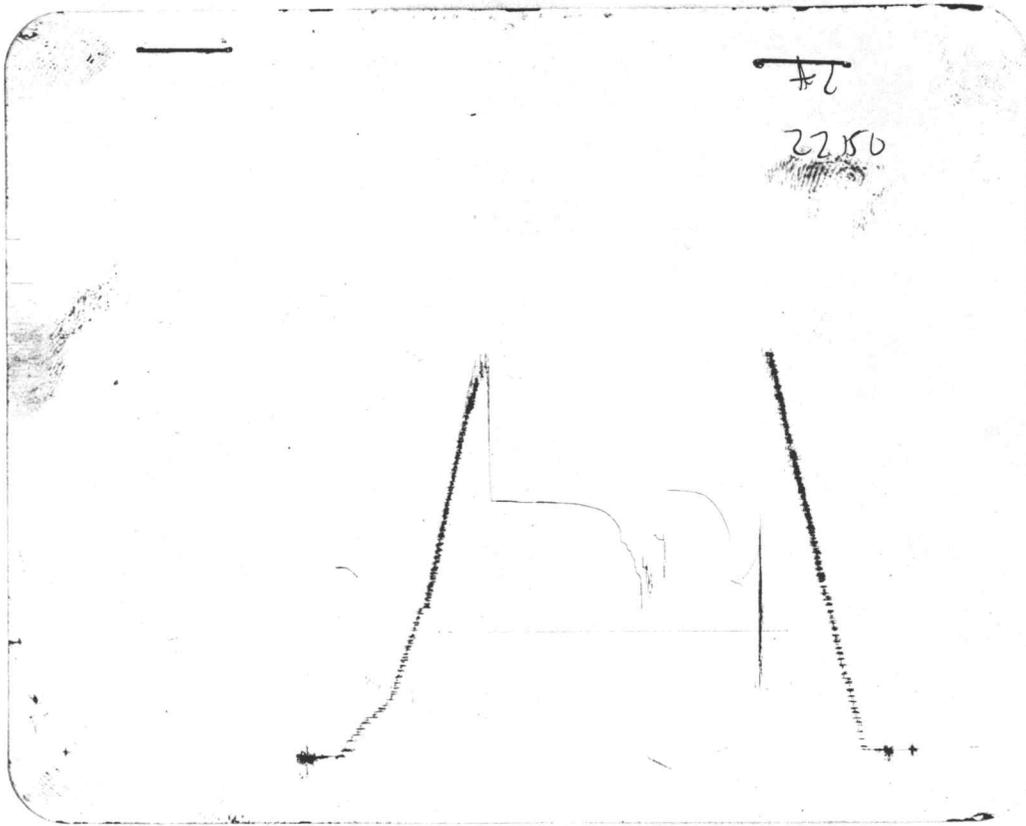
(F) Second Final Flow Pressure 782.9 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1321.9 PSI Initial Opening 20 Final Flow 30

(H) Final Hydrostatic Mud 2077.9 PSI Initial Shut-in 45 Final Shut-in 90

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

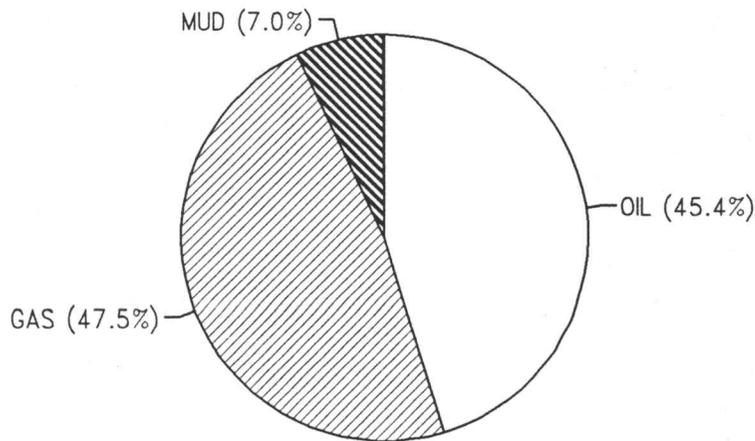
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2100	2114.5
(B) FIRST INITIAL FLOW PRESSURE	1035	1031.1
(C) FIRST FINAL FLOW PRESSURE	897	827.5
(D) INITIAL CLOSED-IN PRESSURE	1354	1374.5
(E) SECOND INITIAL FLOW PRESSURE	916	936
(F) SECOND FINAL FLOW PRESSURE	1084	782.9
(G) FINAL CLOSED-IN PRESSURE	1314	1321.9
(H) FINAL HYDROSTATIC MUD	2071	2077.9

CALCULATED RECOVERY ANALYSIS

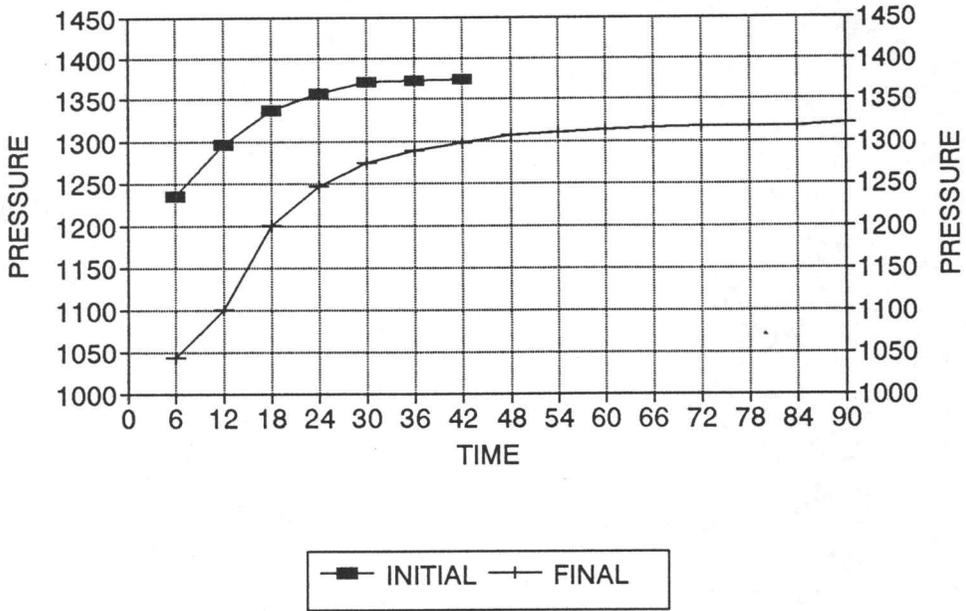
DST # 2 TICKET # 4902

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL 1	467	50	233.5	50	233.5	0	0	0	0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
WEIGHT 1	71	50	35.5	50	35.5	0	0	0	0
PIPE 2	121	30	36.3	10	12.1	0	0	60	72.6
3			0		0		0		0
4			0		0		0		0
DRILL 1			0		0		0		0
COLLAR 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	659		305.3		281.1		0		72.6

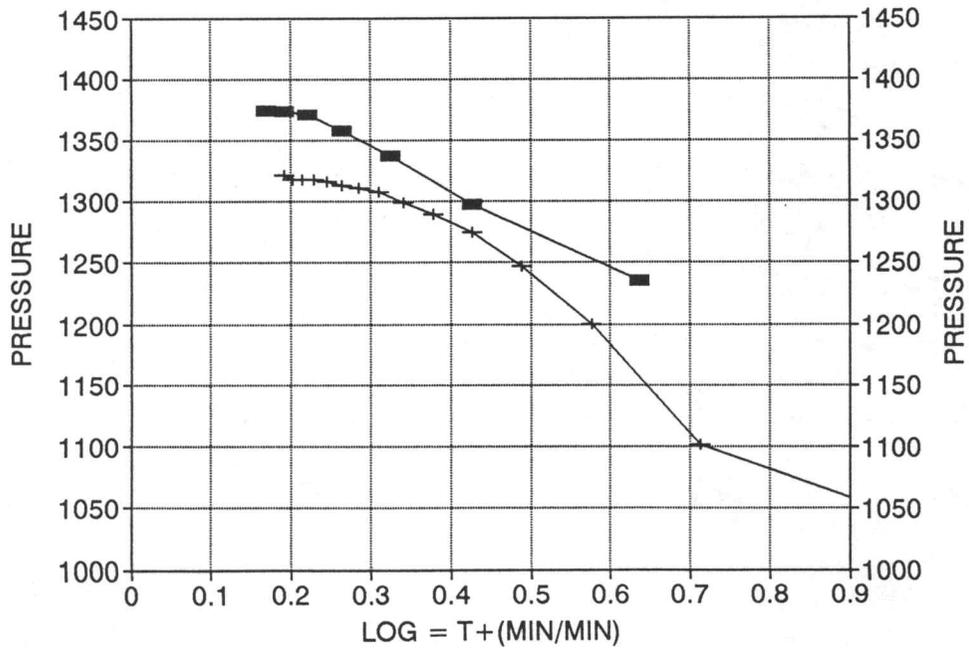
		HRS OPEN	BBL/DAY
BBL OIL=	3.65357 *	0.83	105.6454
BBL WATER=	0 *		0
BBL MUD=	0.56628		
BBL GAS =	3.82297		



#1 KACHELMAN / DST #2 DELTA T DELTA P



HORNER PLOT



#1 KACHELMAN
INITIAL

DST #2
SHUTIN

20 FLOW TIME

Slope 56.92 psi/cycle
P * 1384 psi

		Pws (psi)	Log <> Horn T	PRESSURE	Horn T
	6	1235.3	0.637	1235.3	4
	12	1297.6	0.426	62.3	3
	18	1337.5	0.325	39.9	2
	24	1357.9	0.263	20.4	2
X	30	1371.5	0.222	13.6	2
	36	1373.5	0.192	2.0	2
X	42	1374.5	0.169	1.0	1

#1 KACHELMAN
FINAL

DST #2
SHUTIN

50 TOTAL FLOW TIME

Slope 105.00 psi/cycle
P * 1,342 psi

	TIME(MIN)	Pws (psi)	Log <> Horn T	PRESSURE	Horn T
	6	1043.7	0.970	1043.7	9
	12	1101.1	0.713	57.4	5
	18	1200.3	0.577	99.2	4
	24	1247.0	0.489	46.7	3
	30	1274.3	0.426	27.3	3
	36	1289.8	0.378	15.5	2
	42	1298.6	0.341	8.8	2
	48	1307.3	0.310	8.7	2
	54	1311.2	0.285	3.9	2
	60	1313.2	0.263	2.0	2
	66	1316.1	0.245	2.9	2
X	72	1318.0	0.229	1.9	2
	78	1318.0	0.215	0.0	2
	84	1318.0	0.203	0.0	2
X	90	1321.9	0.192	3.9	2

GAS VOLUME REPORT

KNIGHTON OIL CO., INC.

#1 KACHELMAN

DST # 2

MIN	PSIG	ORIFICE	MCF/D	MIN	PSIG	ORIFICE	MCF/D
5	5	1.5	863	0	TSTM	1.5	
10	8	1.5	1123	5	50	1.5	493
15	9	1.5	1198	10	2.5	1.5	595
20	7	1.5	1036	15	4	1.5	814
				20	4.5	1.5	836
				25	2.5	1.5	595
				30	50	1.5	493

Remarks:

GAS TO SURFACE/GAS BURNS BRIGHT YELLOW-BLUE FLAME

