TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data API# 15-077-21280

Well Name KIRCHER #4 Test No. 1 Date 4/11/94

Company BRYCE F. HAYS OIL & GAS Zone SWOPE

Address P.O. BOX 108 ATTICA KS 67009 Elevation 1513 KB

Co. Rep./Geo. JOHN HASTINGS Cont. EAGLE DRLG RIG #1 Est. Ft. of Pay

Location: Sec. 8 Twp. 32S Rge. 9W Co. HARPER State KS

Interval Tested 4080-4119 Drill Pipe Size 4.5" XH

Anchor Length 39 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth 4075 Drill Collar – 2.25 Ft. Run 503

Bottom Packer Depth 4080 Mud Wt. 9.2 lb/Gal.

Total Depth 4119 Viscosity 47 Filtrate 8

Tool Open @ 2:34 PM Initial Blow WEAK-BUILDING TO 3"

Final Blow WEAK-BUILDING TO 3"

Recovery - Total Feet 90 Flush Tool? NO

Rec. 30 Feet of GAS IN PIPE

Rec. 30 Feet of SLTLY OIL CUT WATERY MUD-1% OIL/40%WTR/59%MUD

Rec. 60 Feet of WATER

Rec. Feet of

Rec. Feet of

BHT 120 °F Gravity °API @ °F Corrected Gravity °API

RW 0.09 @ 70 °F Chlorides 90000 ppm Recovery Chlorides 2500 ppm System

(A) Initial Hydrostatic Mud 2008.2 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 26.5 PSI @ (depth) 4084 w / Clock No. 27567

(C) First Final Flow Pressure 43.3 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 1571.9 PSI @ (depth) 4115 w / Clock No. 27501

(E) Second Initial Flow Pressure 45.2 PSI AK1 Recorder No. Range

(F) Second Final Flow Pressure 70.8 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 1528.9 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1942.9 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative DAN BANGLE

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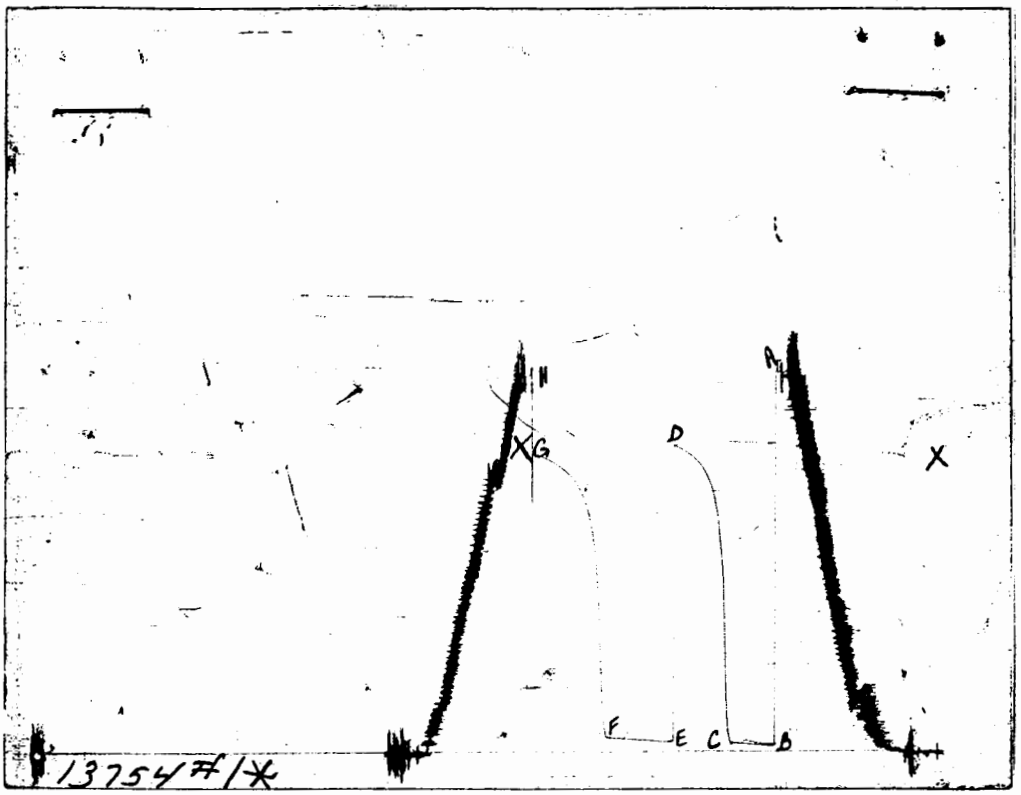
CHART PAGE



This is an actual photograph of recorder chart #13754

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2026	2008.2
(B) FIRST INITIAL FLOW PRESSURE	39	26.5
(C) FIRST FINAL FLOW PRESSURE	59	43.3
(D) INITIAL CLOSED-IN PRESSURE	1576	1571.9
(E) SECOND INITIAL FLOW PRESSURE	68	45.2
(F) SECOND FINAL FLOW PRESSURE	88	70.8
(G) FINAL CLOSED-IN PRESSURE	1536	1528.9
(H) FINAL HYDROSTATIC MUD	1986	1942.9

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Drill-Stem Test Data

Well Name KIRCHER #4 Test No. 2 Date 4/12/94

Company BRYCE F. HAYS OIL & GAS Zone MISS

Address P.O. BOX 108 ATTICA KS 67009 Elevation 1513 KB

Co. Rep./Geo. JOHN HASTINGS Cont. EAGLE DRLG RIG #1 Est. Ft. of Pay

Location: Sec. 8 Twp. 32S Rge. 9W Co. HARPER State KS

Interval Tested 4343-4361 Drill Pipe Size 4.5" XH

Anchor Length 18 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth 4338 Drill Collar – 2.25 Ft. Run 503

Bottom Packer Depth 4343 Mud Wt. 9.3 lb/Gal.

Total Depth 4361 Viscosity 47 Filtrate 8.8

Tool Open @ 4:43 PM Initial Blow STRONG - BOTTOM OF BUCKET IN 1 MINUTE

Final Blow STRONG-BOTTOM OF BUCKET IN 10 SECONDS
GAS TO SURFACE IN 15 MINUTES-TOO SMALL TO MEASURE

Recovery - Total Feet 150 Flush Tool? NO

Rec. Feet of GAS TO SURFACE

Rec. 30 Feet of MUD

Rec. 60 Feet of WATER CUT MUD- 30% WTR/ 70% MUD

Rec. 60 Feet of MUD CUT WATER- 60% WTR/ 40% MUD

Rec. Feet of

BHT 121 °F Gravity °API @ °F Corrected Gravity °API

RW 0.12 @ 80 °F Chlorides 100000 ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2149.7 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 21.6 PSI @ (depth) 4346 w / Clock No. 8179

(C) First Final Flow Pressure 44.2 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 692.6 PSI @ (depth) 4357 w / Clock No. 27567

(E) Second Initial Flow Pressure 32.4 PSI AK1 Recorder No. Range

(F) Second Final Flow Pressure 78.7 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 695.6 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2069.8 PSI Initial Shut-in 60 Final Shut-in 90

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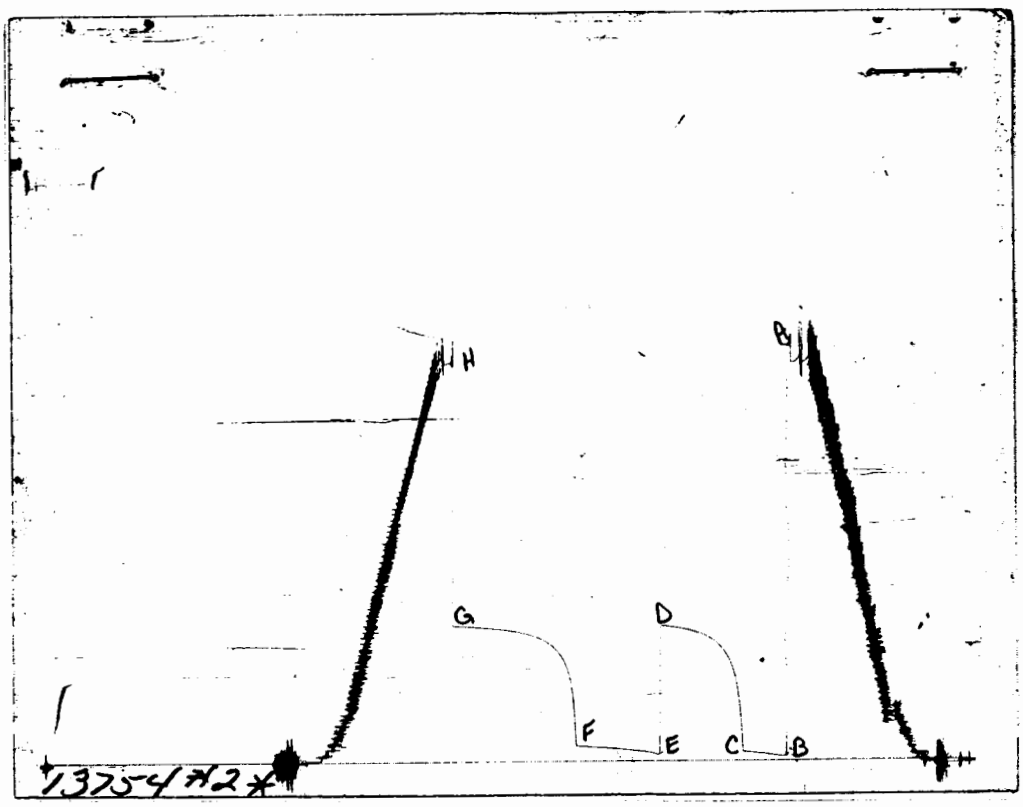
CHART PAGE



This is an actual photograph of recorder chart #13754

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2197	2149.7
(B) FIRST INITIAL FLOW PRESSURE	29	21.6
(C) FIRST FINAL FLOW PRESSURE	59	44.2
(D) INITIAL CLOSED-IN PRESSURE	689	692.6
(E) SECOND INITIAL FLOW PRESSURE	59	32.4
(F) SECOND FINAL FLOW PRESSURE	98	78.7
(G) FINAL CLOSED-IN PRESSURE	689	695.6
(H) FINAL HYDROSTATIC MUD	2076	2069.8

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Drill-Stem Test Data

Well Name KIRCHER #4 Test No. 3 Date 4/13/94

Company BRYCE F. HAYS OIL & GAS Zone MISS

Address P.O. BOX 108 ATTICA KS 67009 Elevation 1513 KB

Co. Rep./Geo. JOHN HASTINGS Cont. EAGLE DRLG RIG #1 Est. Ft. of Pay

Location: Sec. 8 Twp. 32S Rge. 9W Co. HARPER State KS

Interval Tested 4371-4384 Drill Pipe Size 4.5" XH

Anchor Length 13 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth 4371 Drill Collar – 2.25 Ft. Run 440

Bottom Packer Depth 4384 Mud Wt. 9.4 lb/Gal.

Total Depth 4455 Viscosity 48 Filtrate 10.4

Tool Open @ 5:35 PM Initial Blow STRONG-BOTTOM OF BUCKET IN 1 MINUTE

Final Blow STRONG-BOTTOM OF BUCKET IN 15 SECONDS
GAS TO SURFACE IN 35 MINUTES-TOO SMALL TO MEASURE

Recovery - Total Feet 190 Flush Tool? NO

Rec. Feet of GAS TO SURFACE

Rec. 130 Feet of HVY OIL & WTR CUT MUD-5%GAS/33%OIL/20%WTR/42%MUD

Rec. 60 Feet of SLTLY OIL CUT SALT WATER- 2OIL/88%WTR/10%MUD

Rec. Feet of

Rec. Feet of

BHT 119 °F Gravity °API @ °F Corrected Gravity °API

RW 0.12 @ 78 °F Chlorides 120000 ppm Recovery Chlorides 6500 ppm System

(A) Initial Hydrostatic Mud 2162.9 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 24.6 PSI @ (depth) 4375 w / Clock No. 8179

(C) First Final Flow Pressure 52.1 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 657.1 PSI @ (depth) 4380 w / Clock No. 27501

(E) Second Initial Flow Pressure 54.1 PSI AK1 Recorder No. 13849 Range 4375

(F) Second Final Flow Pressure 905.0 PSI @ (depth) 4451 w / Clock No. 27567

(G) Final Shut-in Pressure 662.1 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 2011.2 PSI Initial Shut-in 45 Final Shut-in 60

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CHART PAGE

This is an actual photograph of recorder chart #13754

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2127	2162.9
(B) FIRST INITIAL FLOW PRESSURE	19	24.6
(C) FIRST FINAL FLOW PRESSURE	59	52.1
(D) INITIAL CLOSED-IN PRESSURE	590	657.1
(E) SECOND INITIAL FLOW PRESSURE	68	54.1
(F) SECOND FINAL FLOW PRESSURE	88	905
(G) FINAL CLOSED-IN PRESSURE	610	662.1
(H) FINAL HYDROSTATIC MUD	2066	2011.2

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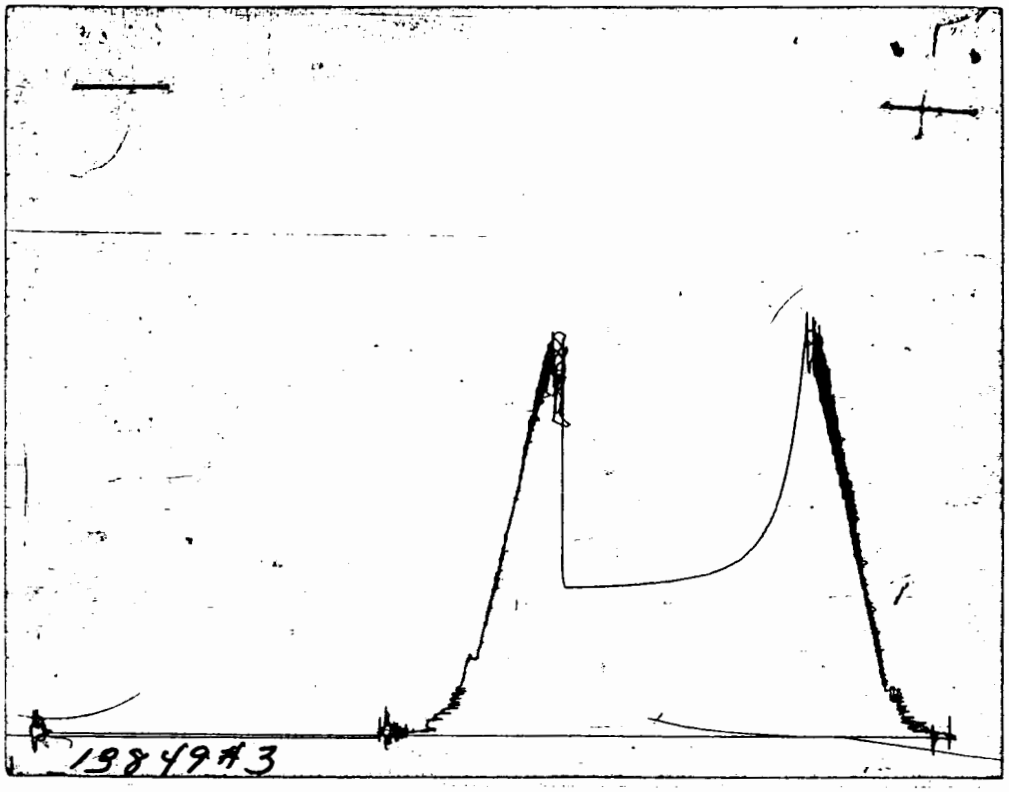


This is an actual photograph of recorder chart # 13849

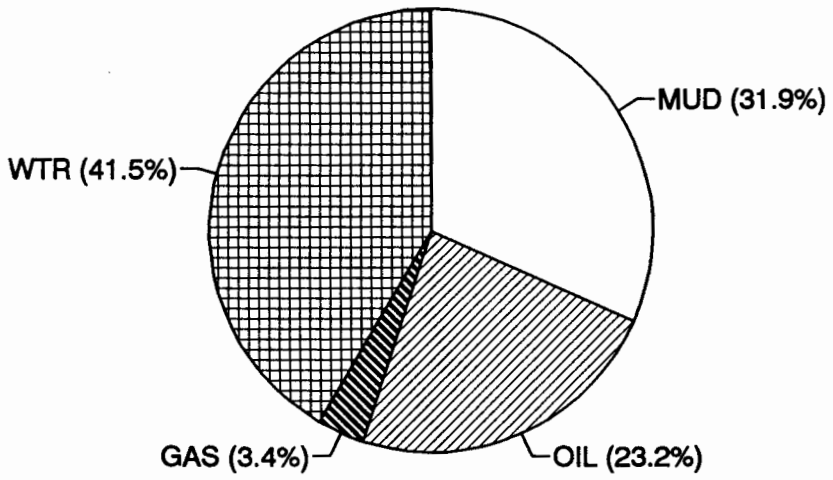
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD		
(B) FIRST INITIAL FLOW PRESSURE		
(C) FIRST FINAL FLOW PRESSURE		
(D) INITIAL CLOSED-IN PRESSURE		
(E) SECOND INITIAL FLOW PRESSURE		
(F) SECOND FINAL FLOW PRESSURE		
(G) FINAL CLOSED-IN PRESSURE		
(H) FINAL HYDROSTATIC MUD		

93611

DST # 3 TICKET 6523

SAMPLE #	TOTAL FEET	%	GAS FEET	%	OIL FEET	%	WATER FEET	%	MUD FEET
1	130	5	6.5	33	42.9	20	26	42	54.6
2	60	0	0	2	1.2	88	52.8	10	6
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	190	3.42	6.5	23.21	44.1	41.47	78.8	31.894737	60.6

			HRS OP	BBL/DAY
BBL OIL=	0.215649	*	1.25	4.1404608
BBL WATER=	0.385332	*		7.3983744
BBL MUD=	0.296334			
BBL GAS=	0.031785			



MUD
OIL
GAS
WTR