TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KLEIN "B" #1 Test No. 1 Date 7/18/93

Company ABERCROMBIE DRILLING INC Zone MARMATON

Address 150 N MAIN #801 WICHITA KS 67202 Elevation 3164

Co. Rep./Geo. ROBERT McCANN Cont. ABERCROMBIE RIG #8 Est. Ft. of Pay

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

Interval Tested 4462-4520

Anchor Length 58

Top Packer Depth 4457

Bottom Packer Depth 4462

Total Depth 4520

Drill Pipe Size 4.5" XH

Wt. Pipe I.D. - 2.7 Ft. Run 438

Drill Collar -- 2.25 Ft. Run

Mud Wt. 9.2 lb/Gal.

Viscosity 45 Filtrate 9.6

Tool Open @ 9:10 PM Initial Blow WEAK SURFACE BLOW TO 1" IN 30 MINUTES

Final Blow NO BLOW - FLUSHED TOOL - NO BLOW

Recovery - Total Feet 40 Flush Tool? YES

Rec. 40 Feet of MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 112 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 6500 ppm System

(A) Initial Hydrostatic Mud 2155.3 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 23.6 PSI @ (depth) 4464 w / Clock No. 27560

(C) First Final Flow Pressure 23.6 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 515.6 PSI @ (depth) 4515 w / Clock No. 25828

(E) Second Initial Flow Pressure 23.6 PSI AK1 Recorder No. Range

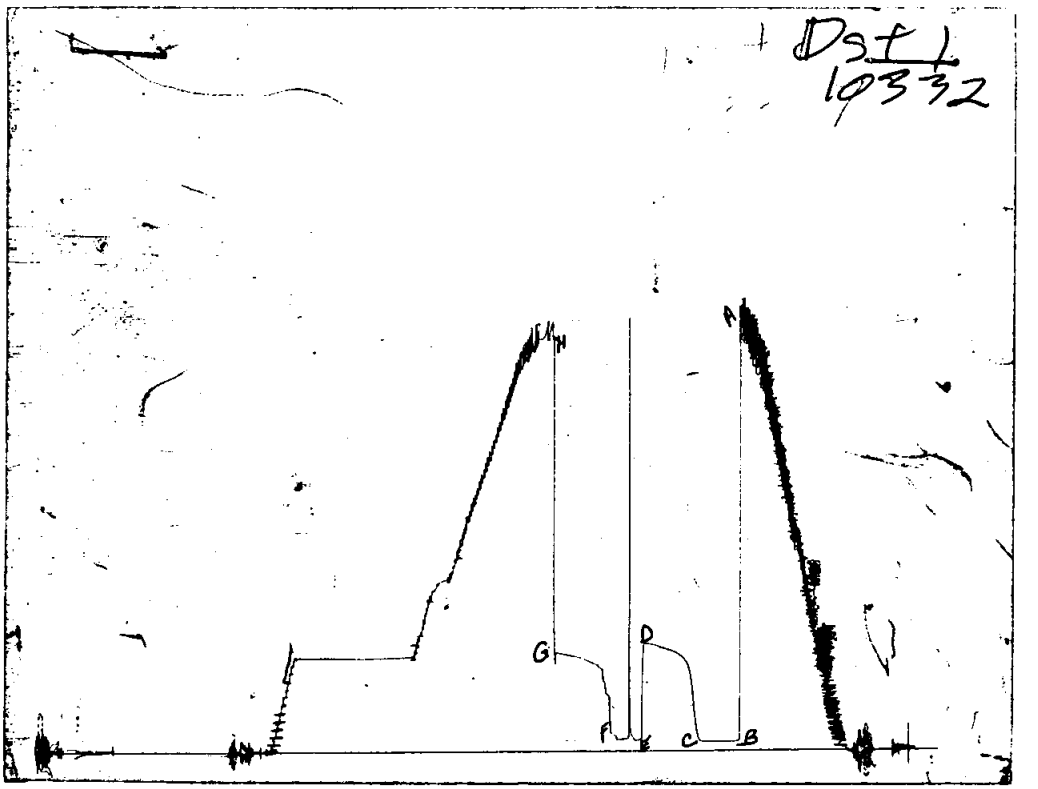
(F) Second Final Flow Pressure 23.6 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 467.8 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2146.9 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative MARK HERSKOWITZ

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2169	2155.3
(B) FIRST INITIAL FLOW PRESSURE	19	23.6
(C) FIRST FINAL FLOW PRESSURE	19	23.6
(D) INITIAL CLOSED-IN PRESSURE	513	515.6
(E) SECOND INITIAL FLOW PRESSURE	19	23.6
(F) SECOND FINAL FLOW PRESSURE	19	23.6
(G) FINAL CLOSED-IN PRESSURE	464	467.8
(H) FINAL HYDROSTATIC MUD	2140	2146.9

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 6381

Well Name & No. KLEIN 'B' 1 Test No. 1 Date 7-18-93

Company ABERCROMBIE DRILLING INC Zone Tested MARMATON

Address 150 N MAIN STE 801 WICHITA Elevation 3164 GL

Co. Rep./Geo. ROBERT McCANN Cont. A.L.A. Rig 8 Est. Ft. of Pay —

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

No. of Copies ____ Distribution Sheet ____ Yes ____ No Turnkey ____ Yes / No ____ Evaluation

Interval Tested 4462 4520 Drill Pipe Size 4½ XH

Anchor Length 58 Top Choke — 1" ____ Bottom Choke — ¾" ____

Top Packer Depth 4457 Hole Size — 7⅞" ____ Rubber Size — 6¾" ____

Bottom Packer Depth 4462 Wt. Pipe I.D. — 2.7 Ft. Run 438

Total Depth 4520 Drill Collar — 2.25 Ft. Run —

Mud Wt. 9.2 LCM — lb / gal. Viscosity 45 Filtrate 9.6

Tool Open @ 9:10 PM Initial Blow [redacted] WEAK SURF TO 1" IN 30 MIN

Final Blow No Blow Flush Tool No Blow

Recovery — Total Feet 40 Feet of Gas In Pipe — Flush Tool? 10:33 PM

Rec. 40 Feet Of Mud %gas %oil %water 100 %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

BHT 112 °F Gravity ____ °API @ ____ °F Corrected Gravity ____ °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides 6500 ppm System

(A) Initial Hydrostatic Mud	2169 PSI	AK1 Recorder No.	13337	Range	3975
(B) First Initial Flow Pressure	19 PSI	@ (depth)	4464	w/Clock No.	27560
(C) First Final Flow Pressure	19 PSI	AK1 Recorder No.	10332	Range	4050
(D) Initial Shut-In Pressure	513 PSI	@ (depth)	4515	w/Clock No.	25928
(E) Second Initial Flow Pressure	19 PSI	AK1 Recorder No.	____	Range	____
(F) Second Final Flow Pressure	19 PSI	@ (depth)	____	w/Clock No.	____
(G) Final Shut-In Pressure	464 PSI	Initial Opening	30	Test	600.00
(H) Final Hydrostatic Mud	2140 PSI	Initial Shut-In	[redacted]45	Jars	____
		Final Flow	30	Safety Joint	____
		Final Shut-In	[redacted]45	Straddle	____
				Circ. Sub	✓ NC
				Sampler	____
				Extra Packer	____
				Other	____
				TOTAL PRICE $	600.00

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By [signature]

Our Representative Mark Hershey

Printcraft Printers - Hays, KS

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KLEIN "B" #1 Test No. 2 Date 7/19/93

Company ABERCROMBIE DRILLING INC Zone MARMATON

Address 150 N MAIN #801 WICHITA KS 67202 Elevation 3164

Co. Rep./Geo. ROBERT McCANN Cont. ABERCROMBIE RIG #8 Est. Ft. of Pay

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

Interval Tested 4520-4572

Anchor Length 52

Top Packer Depth 4515

Bottom Packer Depth 4520

Total Depth 4572

Drill Pipe Size 4.5" XH

Wt. Pipe I.D. - 2.7 Ft. Run 438

Drill Collar -- 2.25 Ft. Run

Mud Wt. 9.1 lb/Gal.

Viscosity 50 Filtrate 13.6

Tool Open @ 1:40 PM Initial Blow WEAK SURFACE TO NO BLOW IN 15 MINUTES
NO BLOW FOR 15 MINUTES

Final Blow NO BLOW - FLUSHED TOOL - NO BLOW FOR 30 MINUTES

Recovery - Total Feet 10 Flush Tool? YES

Rec. 10 Feet of MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 112 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 2231.2 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 11.3 PSI @ (depth) 4522 w / Clock No. 27560

(C) First Final Flow Pressure 11.3 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 11.3 PSI @ (depth) 4567 w / Clock No. 25828

(E) Second Initial Flow Pressure 11.3 PSI AK1 Recorder No. Range

(F) Second Final Flow Pressure 11.3 PSI @ (depth) w / Clock No.

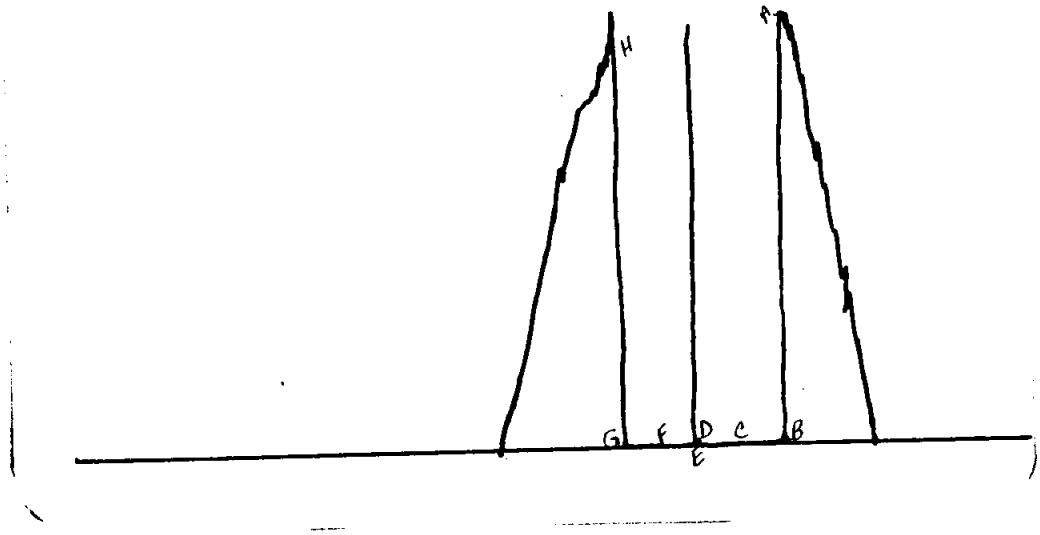
(G) Final Shut-in Pressure 11.3 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2213.6 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative MARK HERSKOWITZ

Copy of Black Chart

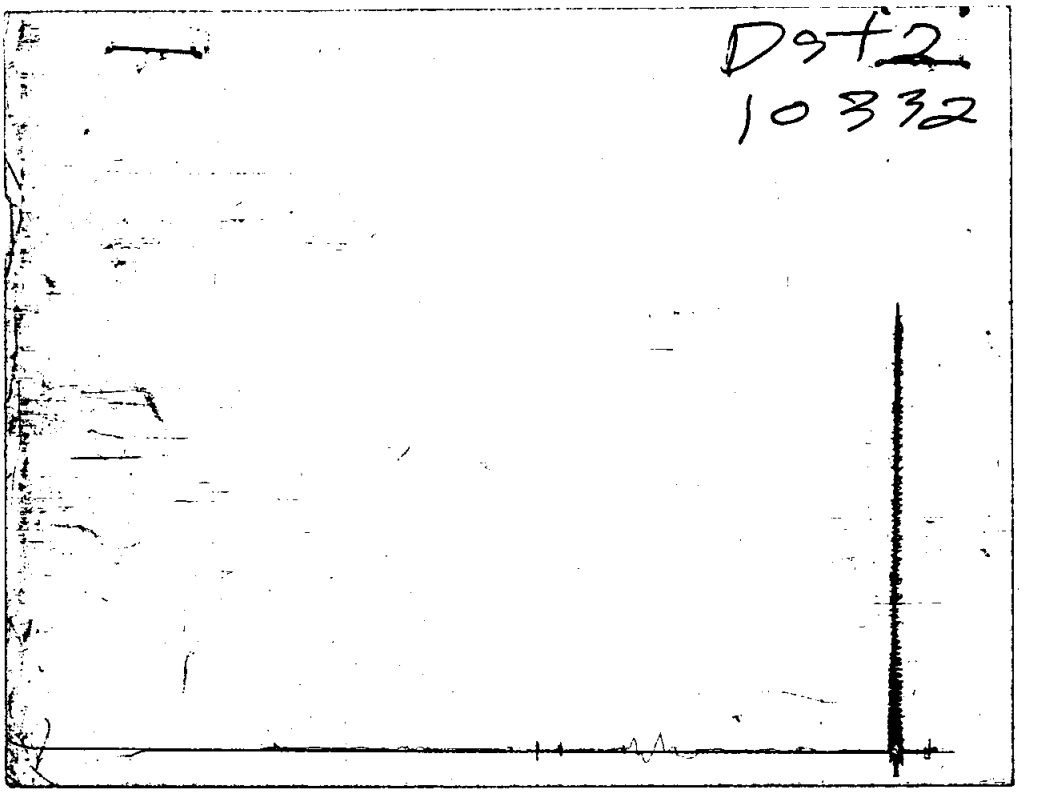
CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2229	2231.2
(B) FIRST INITIAL FLOW PRESSURE	9	11.3
(C) FIRST FINAL FLOW PRESSURE	9	11.3
(D) INITIAL CLOSED-IN PRESSURE	9	11.3
(E) SECOND INITIAL FLOW PRESSURE	9	11.3
(F) SECOND FINAL FLOW PRESSURE	9	11.3
(G) FINAL CLOSED-IN PRESSURE	9	11.3
(H) FINAL HYDROSTATIC MUD	2209	2213.6

CHART PAGE



This is an actual photograph of recorder chart

	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		

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No. 6382

Well Name & No. KLEIN 'B' 1 Test No. 2 Date 7-19-92

Company ABERCROMBIE DRILLING Zone Tested MARMATON

Address 150 N MAIN STE 801 WICHITA Elevation 3164 GL

Co. Rep./Geo. ROBERT McCANN Cont. A.L.A. Rig 8 Est. Ft. of Pay —

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

No. of Copies ____ Distribution Sheet ____ Yes ____ No Turnkey ____ Yes ____ No ____ Evaluation

Interval Tested 4520 - 4572 Drill Pipe Size 4½ XH

Anchor Length 52 Top Choke — 1" ____ Bottom Choke — ¾" ____

Top Packer Depth 4515 Hole Size — 7⅞" ____ Rubber Size — 6¾" ____

Bottom Packer Depth 4520 Wt. Pipe I.D. — 2.7 Ft. Run — 6.38

Total Depth 4572 Drill Collar — 2.25 Ft. Run —

Mud Wt. 9.1 LCM — lb/gal. Viscosity 50 Filtrate 13.6

Tool Open @ 4:40 PM Initial Blow WEAK SURFACE TO NO BLOW 15 MIN NO BLOW FOR 15 MIN

Final Blow NO BLOW FLUSH TOOL NO BLOW FOR 30 MIN

Recovery — Total Feet 10 Feet of Gas in Pipe ____ Flush Tool? 2:45 PM

Rec. 10 Feet Of Mud %gas ____ %oil ____ %water 100 %mud

Rec. ____ Feet Of ____ %gas ____ %oil ____ %water ____ %mud

Rec. ____ Feet Of ____ %gas ____ %oil ____ %water ____ %mud

Rec. ____ Feet Of ____ %gas ____ %oil ____ %water ____ %mud

Rec. ____ Feet Of ____ %gas ____ %oil ____ %water ____ %mud

BHT 112 °F Gravity ____ °API @ ____ °F Corrected Gravity ____ °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud	2229 PSI	AK1 Recorder No.	13371	Range	3975
(B) First Initial Flow Pressure	9 PSI	@ (depth)	4522	w/Clock No.	27560
(C) First Final Flow Pressure	9 PSI	AK1 Recorder No.	10332	Range	4050
(D) Initial Shut-In Pressure	9 PSI	@ (depth)	4567	w/Clock No.	25828
(E) Second Initial Flow Pressure	9 PSI	AK1 Recorder No.	____	Range	____
(F) Second Final Flow Pressure	9 PSI	@ (depth)	____	w/Clock No.	____
(G) Final Shut-In Pressure	9 PSI	Initial Opening	30	Test	✓
(H) Final Hydrostatic Mud	2209 PSI	Initial Shut-In	30	Jars	____
		Final Flow	30	Safety Joint	____
		Final Shut-In	30	Straddle	____
				Circ. Sub	✓ NC
				Sampler	____
				Extra Packer	____
				Other	____
				TOTAL PRICE $	600

Approved By Ted E. McGarry

Our Representative Mark Herschberger

Printcraft Printers - Hays, KS

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KLEIN "B" #1 Test No. 3 Date 7/20/93

Company ABERCROMBIE DRILLING INC Zone PAWNEE

Address 150 N MAIN #801 WICHITA KS 67202 Elevation 3164

Co. Rep./Geo. ROBERT McCANN Cont. ABERCROMBIE RIG #8 Est. Ft. of Pay

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

Interval Tested 4576-4600

Anchor Length 24

Top Packer Depth 4571

Bottom Packer Depth 4576

Total Depth 4600

Drill Pipe Size 4.5" XH

Wt. Pipe I.D. - 2.7 Ft. Run 468

Drill Collar – 2.25 Ft. Run

Mud Wt. 9.1 lb/Gal.

Viscosity 49 Filtrate 13.6

Tool Open @ 9:25 AM Initial Blow WEAK SURFACE FOR 10 MINUTES - NO BLOW FOR 20 MINUTES

Final Blow NO BLOW - FLUSHED TOOL - NO BLOW FOR 30 MINUTES

Recovery - Total Feet 15 Flush Tool? YES

Rec. 15 Feet of OIL STAINED MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 112 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 2306.9 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 22.4 PSI @ (depth) 4578 w / Clock No. 27560

(C) First Final Flow Pressure 22.4 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 402.5 PSI @ (depth) 4595 w / Clock No. 25828

(E) Second Initial Flow Pressure 22.4 PSI AK1 Recorder No. Range

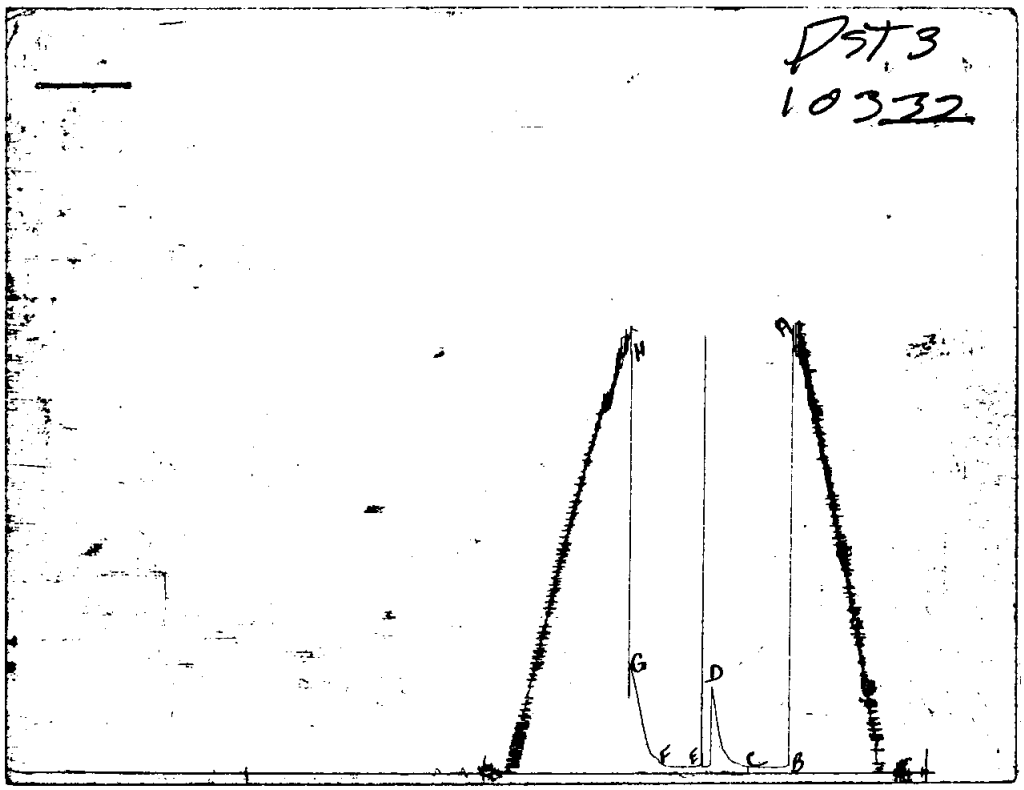
(F) Second Final Flow Pressure 22.4 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 515.6 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2260.3 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative MARK HERSKOWITZ

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2293	2306.9
(B) FIRST INITIAL FLOW PRESSURE	19	22.4
(C) FIRST FINAL FLOW PRESSURE	19	22.4
(D) INITIAL CLOSED-IN PRESSURE	395	402.5
(E) SECOND INITIAL FLOW PRESSURE	19	22.4
(F) SECOND FINAL FLOW PRESSURE	19	22.4
(G) FINAL CLOSED-IN PRESSURE	513	515.6
(H) FINAL HYDROSTATIC MUD	2258	2260.3

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No. 6383

Well Name & No. KLEIN 'B' 1 Test No. 3 Date 7-20-93

Company ABERCROMBIE DRILLING Zone Tested PAWNEE

Address 150 MAIN STE 801 WICHITA Elevation 3161 GL

Co. Rep./Geo. ROBERT MCCANN Cont. A.L.A. Rig 8 Est. Ft. of Pay —

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

No. of Copies ____ Distribution Sheet ____ Yes ____ No Turnkey ____ Yes ____ No ____ Evaluation

Interval Tested 4576 - 4600 Drill Pipe Size 4½ XH

Anchor Length 24 Top Choke — 1" ____ Bottom Choke — ¾" ____

Top Packer Depth 4571 Hole Size — 7⅞" ____ Rubber Size — 6¾" ____

Bottom Packer Depth 4576 Wt. Pipe I.D. — 2.7 Ft. Run 468

Total Depth 4600 Drill Collar — 2.25 Ft. Run —

Mud Wt. 9.1 LCM — lb/gal. Viscosity 49 Filtrate 13.6

Tool Open @ 9:25 AM Initial Blow WEAK SURF FOR 10 MIN NO BLOW FOR 20 MIN

Final Blow NO BLOW FLUSH TOOL NO BLOW FOR 30 MIN

Recovery — Total Feet 15 Feet of Gas in Pipe ____ Flush Tool? 10:50 AM

Rec. 15 Feet Of 0.15 MUD %gas TR %oil %water 100 %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

BHT 112 °F Gravity ____ °API @ ____ °F Corrected Gravity ____ °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2293 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 19 PSI @ (depth) 4578 w/Clock No. 27560

(C) First Final Flow Pressure 19 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-In Pressure 395 PSI @ (depth) 4595 w/Clock No. 25828

(E) Second Initial Flow Pressure 19 PSI AK1 Recorder No. ____ Range ____

(F) Second Final Flow Pressure 19 PSI @ (depth) ____ w/Clock No. ____

(G) Final Shut-In Pressure 513 PSI Initial Opening 30 Test ✓

(H) Final Hydrostatic Mud 2258 PSI Initial Shut-In 30 Jars ____

Final Flow 30 Safety Joint ____

Final Shut-In 30 Straddle ____

Circ. Sub ✓ NC

Sampler ____

Extra Packer ____

Other ____

TOTAL PRICE $ ____

Approved By Robert Ed McCann

Our Representative Mark Hershberger

Printcraft Printers - Hays, KS

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KLEIN "B" #1 Test No. 4 Date 7/20/93

Company ABERCROMBIE DRILLING INC Zone JOHNSON

Address 150 N MAIN #801 WICHITA KS 67202 Elevation 3164

Co. Rep./Geo. ROBERT McCANN Cont. ABERCROMBIE RIG #8 Est. Ft. of Pay 3

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

Interval Tested 4606-4630 Drill Pipe Size 4.5" XH

Anchor Length 24 Wt. Pipe I.D. - 2.7 Ft. Run 468

Top Packer Depth 4601 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 4606 Mud Wt. 9.2 lb/Gal.

Total Depth 4630 Viscosity 50 Filtrate 9.6

Tool Open @ 10:47 PM Initial Blow GOOD BLOW OFF BOTTOM IN 12 MINUTES

Final Blow GOOD BLOW OFF BOTTOM IN 6 MINUTES
6" BLOW ON FINAL SHUTIN

Recovery - Total Feet 174 Flush Tool? NO

Rec. 867 Feet of GAS IN PIPE

Rec. 80 Feet of CLEAN GASSY OIL-2% GAS/ 98% OIL

Rec. 62 Feet of GSY MUD CUT OIL-2% GAS/70% OIL/ 28% MUD

Rec. 32 Feet of VERY GASSY OIL CUT MUD-55% GAS/ 15% OIL/ 30% MUD

Rec. Feet of

BHT 113 °F Gravity 36 °API @ 80 °F Corrected Gravity 34 °API

RW @ °F Chlorides ppm Recovery Chlorides 7000 ppm System

(A) Initial Hydrostatic Mud 2332.0 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 49.4 PSI @ (depth) 4608 w / Clock No. 27560

(C) First Final Flow Pressure 37.5 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 655.2 PSI @ (depth) 4625 w / Clock No. 25828

(E) Second Initial Flow Pressure 69.1 PSI AK1 Recorder No. Range

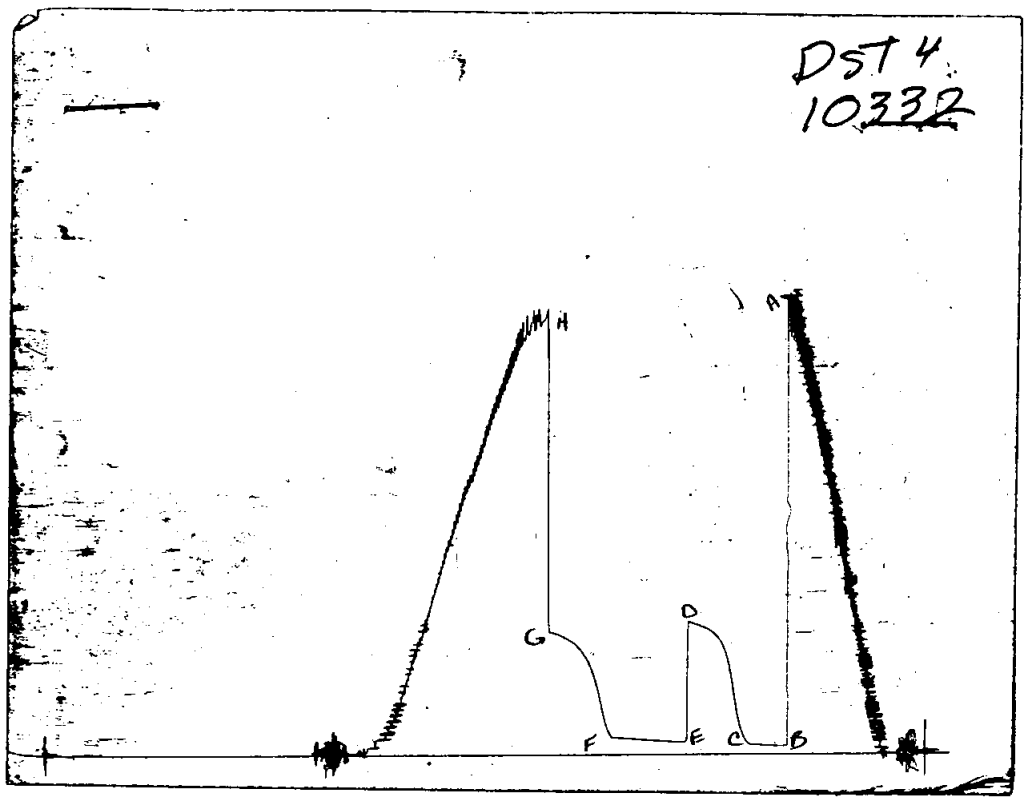
(F) Second Final Flow Pressure 70.1 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 602.1 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2146.9 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative MARK HERSKOWITZ

CHART PAGE



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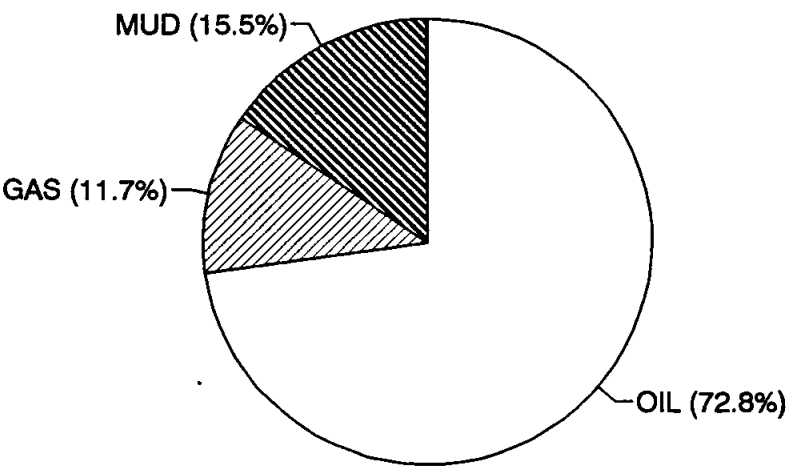
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2328	2332
(B) FIRST INITIAL FLOW PRESSURE	29	49.4
(C) FIRST FINAL FLOW PRESSURE	39	37.5
(D) INITIAL CLOSED-IN PRESSURE	661	655.2
(E) SECOND INITIAL FLOW PRESSURE	49	69.1
(F) SECOND FINAL FLOW PRESSURE	69	70.1
(G) FINAL CLOSED-IN PRESSURE	621	602.1
(H) FINAL HYDROSTATIC MUD	2298	2146.9

CALCULATED RECOVERY ANALYSIS WEIGHT PIPE

DST # 4 TICKET # 6384

SAMPLE	TOTAL		GAS		OIL		WATER		MUD
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
1	80	2	1.6	98	78.4	0	0	0	0
2	62	2	1.24	70	43.4	0	0	28	17.36
3	32	55	17.6	15	4.8	0	0	30	9.6
4			0		0		0		0
5			0		0		0		0
TOTAL	174	11.75	20.44	72.758621	126.6	0	0	15.494	26.96

			HRS OPEN	BBL/DAY
BBL OIL=	0.8862	*	1.5	14.1792
BBL WATER=	0	*		0
BBL MUD=	0.18872			
BBL GAS=	0.14308			



COMPUTER OIL EVALUATION BY TRILOBITE TESTING, L.L.C.

ABERCROMBIE DRILLING INC

KLEIN "B" #1 DST 4

4 21S 35W KEARNY KS

****

ELEVATION:	3164	KB	EST. PAY	3	FT
DATUM:	-1445		ZONE TESTED:	JOHNSON	
TEST INTERVAL:	4606-4630		TIME INTERVALS:	30-45-60-45	
RECORDER DEPTH:	4608		VISCOSITY:	5.18	CP
BOTTOM HOLE TEMP:	113		HOLE SIZE:	7.875	IN

****

CUBIC FEET OF GAS IN PIPE:	57			
TOTAL FEET OF RECOVERY:	174.00	CORRECTED PIPE FILLUP:	189.459	
TOTAL BARRELS OF RECOVERY:	1.22	CORR. BARRELS OF RECOVERY:	1.323	BBL
BARRELS IN DRILL PIPE:	0.00	API GRAVITY:	34	
BARRELS IN WEIGHT PIPE:	1.22	FLUID GRADIENT:	0.370	
BARRELS IN DRILL COLLARS:	0.00			
GAS OIL RATIO:	46.98	CU.FT/BBL		
BUBBLE POINT PRESSURE:	332			
UNCORRECTED INITIAL PRODUCTION:			19.49	BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			21.17	BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			9.600	

****

INITIAL SLOPE	588.32	PSI/CYCL	FINAL SLOPE	441.43	PSI/CYCLE
INITIAL P*	792.92	PSI	FINAL P*	821.64	PSI

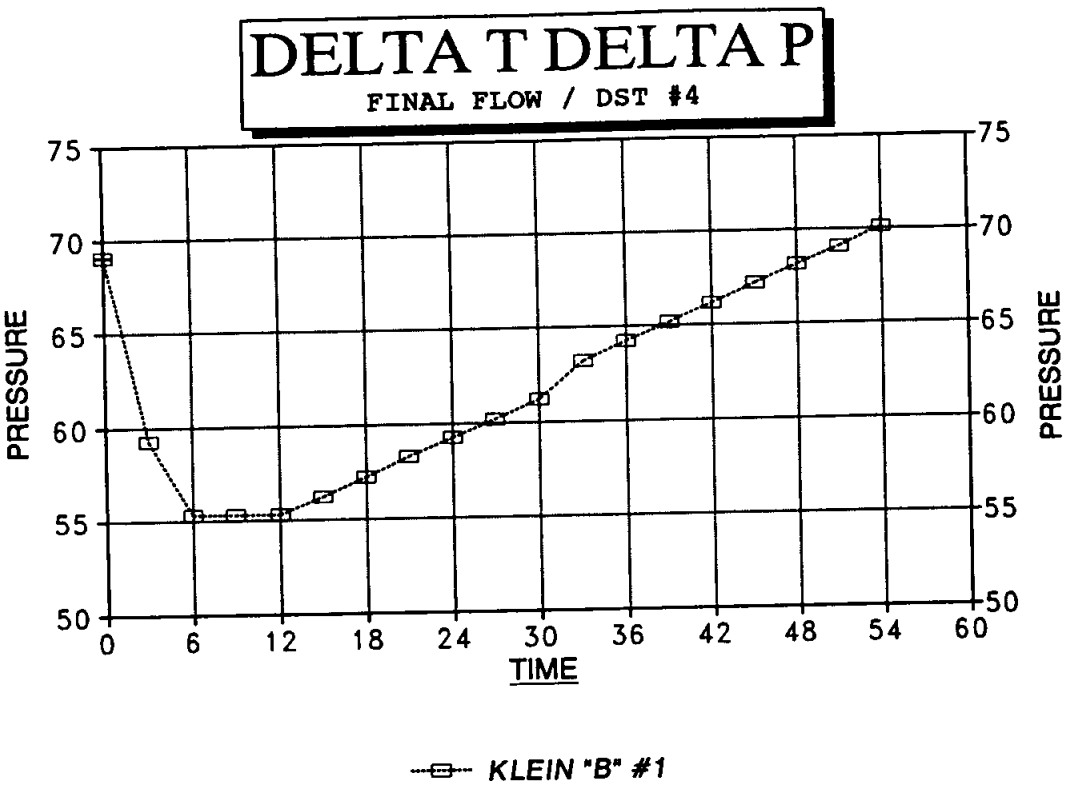
****

TRANSMISSIBILITY	7.80	(MD.-FT./CP.)
PERMEABILITY	13.47	(MD.)
INDICATED FLOW CAPACITY	40.41	(MD.FT)
PRODUCTIVITY INDEX	0.01	(BARREL/DAY/PSI)
DAMAGE RATIO	0.31	
RADIUS OF INVESTIGATION	34.82	(FT,)
POTENTIOMETRIC SURFACE	461.37	(FT.)
DRAWDOWN FACTOR	-3.622	(%)

FINAL FLOW

RECORDER 13337 DST # 4

TIME(MIN)	PRESSURE	<> PRESSURE
0	69.1	69.1
3	59.3	-9.8
6	55.3	-4.0
9	55.3	0.0
12	55.3	0.0
15	56.3	1.0
18	57.3	1.0
21	58.3	1.0
24	59.3	1.0
27	60.2	0.9
30	61.2	1.0
33	63.2	2.0
36	64.2	1.0
39	65.2	1.0
42	66.2	1.0
45	67.2	1.0
48	68.2	1.0
51	69.1	0.9
54	70.1	1.0



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE: 9.600

KLEIN "B" #1
INITIAL

DST #4
SHUTIN
30 INITIAL FLOW TIME

SLOPE 588.3 PSI/CYCLE
P* 792.92 PSI

	TIME(MIN)	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	65.2	1.041	65.2	11
	6	122.5	0.778	57.3	6
	9	231.1	0.637	108.6	4
	12	355.7	0.544	124.6	4
	15	444.7	0.477	89.0	3
	18	509.8	0.426	65.1	3
	21	551.0	0.385	41.2	2
	24	578.5	0.352	27.5	2
	27	600.1	0.325	21.6	2
	30	620.8	0.301	20.7	2
X	33	627.7	0.281	6.9	2
	36	635.5	0.263	7.8	2
	39	645.3	0.248	9.8	2
X	42	655.2	0.234	9.9	2

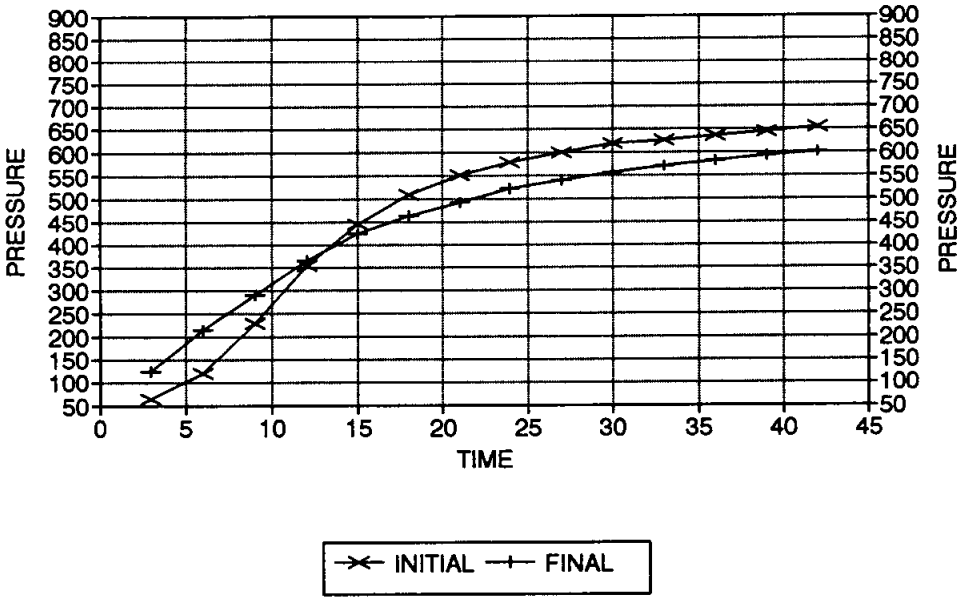
KLEIN "B" #1
FINAL

DST #4
SHUTIN
90 TOTAL FLOW TIME

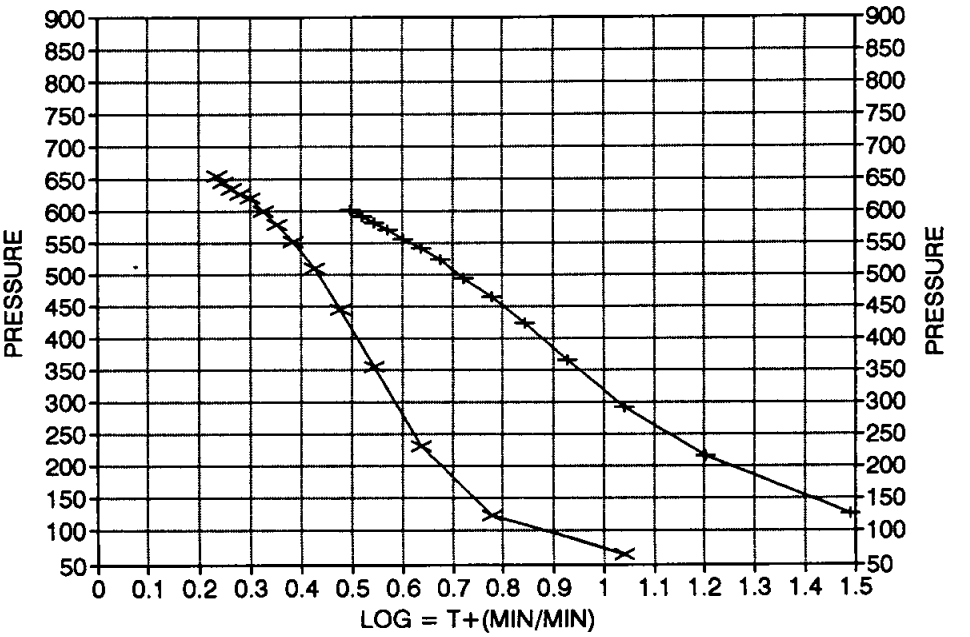
SLOPE 441.4 PSI/CYCLE
P* 821.6 PSI

		Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	126.4	1.491	126.4	31
	6	217.3	1.204	90.9	16
	9	292.4	1.041	75.1	11
	12	365.6	0.929	73.2	9
	15	424.9	0.845	59.3	7
	18	464.4	0.778	39.5	6
	21	494.1	0.723	29.7	5
	24	523.5	0.677	29.4	5
	27	541.2	0.637	17.7	4
	30	556.9	0.602	15.7	4
	33	570.7	0.571	13.8	4
	36	582.4	0.544	11.7	4
X	39	592.3	0.520	9.9	3
X	42	602.1	0.497	9.8	3

KLEIN "B" #1 / DST #4
DELTA T DELTA P



HORNER PLOT



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No. 6384

Well Name & No. KLEIN "B" 1 Test No. 4 Date 7-20-93

Company ABERCROMBIE DRILLING Zone Tested Johnson

Address 150 N MAIN STE 801 WICHITA Elevation 3164 GL

Co. Rep./Geo. ROBERT McCANN Alt. A.L.A. Big 8 Est. Ft. of Pay 3

Location: Sec. 21 Twp. 21S Rge. 35W Co. KEARNY State KS

No. of Copies ____ Distribution Sheet ____ Yes ____ No Turnkey ____ Yes ✓ No ____ Evaluation

Interval Tested 4606 - 4630 Drill Pipe Size 4 1/2 XH

Anchor Length 24 Top Choke — 1" ____ Bottom Choke — ¾" ____

Top Packer Depth 4601 Hole Size — 7⅞" ____ Rubber Size — 6¾" ____

Bottom Packer Depth 4606 Wt. Pipe I.D. — 2.7 Ft. Run 468

Total Depth 4630 Drill Collar — 2.25 Ft. Run —

Mud Wt. 9.2 LCM 1 lb/gal. Viscosity 50 Filtrate 9.6

Tool Open @ 10:47 PM Initial Blow Good Blow OFF Bottom in 12 Min

Final Blow Good Blow OFF Bottom in 6 Min 6" Blow on Final Shut-in

Recovery — Total Feet 174' Feet of Gas in Pipe 867 Flush Tool? —

Rec. 80' Feet Of C.G.O. 2 %gas 98 %oil %water %mud

Rec. 62' Feet Of G.Mud 0.1 2 %gas 70 %oil %water %mud 28

Rec. 32' Feet Of G.H.O.C Mud 5 %gas 15 %oil %water 30 %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

BHT 113 °F Gravity 36 °API @ 80 °F Corrected Gravity 34 °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides 7000 ppm System

(A) Initial Hydrostatic Mud	2328 PSI	AK1 Recorder No.	13337	Range	3475
(B) First Initial Flow Pressure	29 PSI	@ (depth)	4608	w/Clock No.	27540
(C) First Final Flow Pressure	39 PSI	AK1 Recorder No.	10332	Range	4050
(D) Initial Shut-In Pressure	641 PSI	@ (depth)	4625	w/Clock No.	25828
(E) Second Initial Flow Pressure	49 PSI	AK1 Recorder No.	____	Range	____
(F) Second Final Flow Pressure	69 PSI	@ (depth)	____	w/Clock No.	____
(G) Final Shut-In Pressure	621 PSI	Initial Opening	30	Test	600.00
(H) Final Hydrostatic Mud	2298 PSI	Initial Shut-In	45	Jars	____
		Final Flow	60	Safety Joint	____
		Final Shut-In	45	Straddle	____
				Circ. Sub	✓ MC
				Sampler	____
				Extra Packer	____
				Other	evaluation
				TOTAL PRICE $	____

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Robert E. McCann

Our Representative Mark Hershey

Printcraft Printers - Hays, KS

WELL NAME KLEIN (B)# DST # 4 RECORDER # 13337

INIT. HYD. MUD. 2364 FINAL HYD. MUD 2314

	INITIAL FLOW MINUTES 30 INTERVAL 3		INITIAL SHUTIN MINUTES 45 INTERVAL 3			FINAL FLOW MINUTES 60 INTERVAL 3		FINAL SHUTIN MINUTES 45 INTERVAL 3	
	50		38		1	70		68	
	36		64		2	60		128	
	34		124		3	56		220	
	34		234		4	56		296	
	34		360		5	56		370	
	34		450		6	58		430	
	36		516		7	58		470	
	36		558		8	60		500	
	38		586		9	60		530	
	38		608		10	60		548	
			629		11	60		564	
			636		12	62		578	
			644		13	62		590	
			654		14	62		600	
			664		15	64		610	
					16	64			
					17	66			
					18	66			
					19	68			
					20	68			
					21				
					22				
					23				
					24				
					25				
					26				
					27				

Unit. Flow

0.05	49.4
0.036	35.538
0.034	33.558
0.034	33.558
0.034	33.558
0.034	33.558
0.036	35.538
0.036	35.538
0.038	37.51867
0.038	37.51867

F.F

0.07	69.19792
0.06	59.3
0.056	55.3392
0.056	55.3392
0.056	55.3392
0.057	56.3293
0.058	57.31947
0.059	58.3097
0.06	59.3
0.061	60.2896
0.062	61.27925
0.063	62.26894
0.064	63.25867
0.065	64.24844
0.066	65.23825
0.067	66.2281
0.068	67.218
0.069	68.20794
0.07	69.19792
0.071	70.18794

DSD

0.066	65.23825
0.124	122.512
0.234	231.192
0.36	355.734
0.45	444.7013
0.516	509.8259
0.558	551.0812
0.586	578.5644
0.608	600.1684
0.629	620.8193
0.636	627.7017
0.644	635.5667
0.654	645.3968
0.664	655.2257

FSD

0.128	126.464
0.22	217.36
0.296	292.448
0.37	365.6248
0.43	424.9411
0.47	464.4611
0.5	494.1
0.53	523.5817
0.548	541.2618
0.564	556.9718
0.578	570.7137
0.59	582.4893
0.6	592.3
0.61	602.1354

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KLEIN "B" #1 Test No. 5 Date 7/21/93

Company ABERCROMBIE DRILLING INC Zone CHEROKEE

Address 150 N MAIN #801 WICHITA KS 67202 Elevation 3164

Co. Rep./Geo. ROBERT McCANN Cont. ABERCROMBIE RIG #8 Est. Ft. of Pay 4

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

Interval Tested 4710-4730 Drill Pipe Size 4.5" XH

Anchor Length 20 Wt. Pipe I.D. - 2.7 Ft. Run 468

Top Packer Depth 4705 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 4710 Mud Wt. 9.2 lb/Gal.

Total Depth 4730 Viscosity 52 Filtrate 11.2

Tool Open @ 8:50 PM Initial Blow SURFACE TO 3 1/4" IN 30 MINUTES

Final Blow OPEN 3" TO BOTTOM IN 40 MINUTES

Recovery - Total Feet 35 Flush Tool? NO

Rec. 271 Feet of GAS IN PIPE

Rec. 15 Feet of CLEAN OIL

Rec. 20 Feet of MUD CUT OIL-65% OIL/ 35% MUD

Rec. Feet of

Rec. Feet of

BHT 114 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 9000 ppm System

(A) Initial Hydrostatic Mud 2419.9 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 51.3 PSI @ (depth) 4712 w / Clock No. 27560

(C) First Final Flow Pressure 31.5 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 771.1 PSI @ (depth) 4725 w / Clock No. 25828

(E) Second Initial Flow Pressure 59.3 PSI AK1 Recorder No. Range

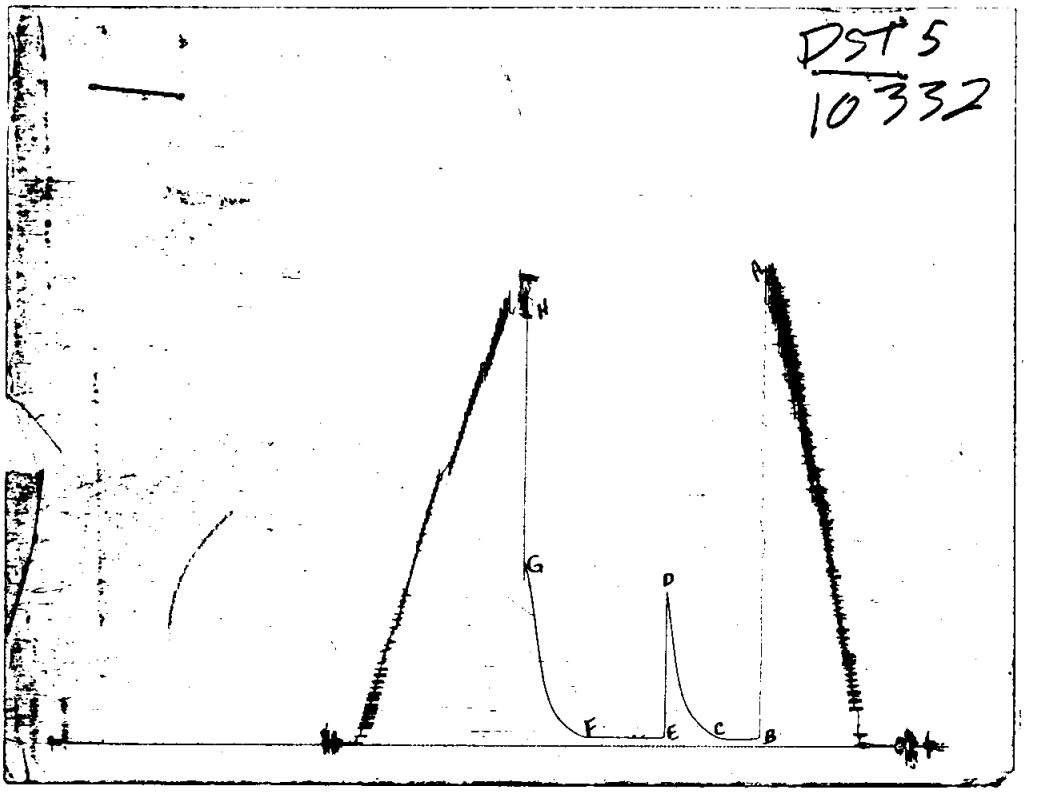
(F) Second Final Flow Pressure 33.5 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 922.3 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2361.6 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative MARK HERSKOWITZ

CHART PAGE



This is an actual photograph of recorder chart

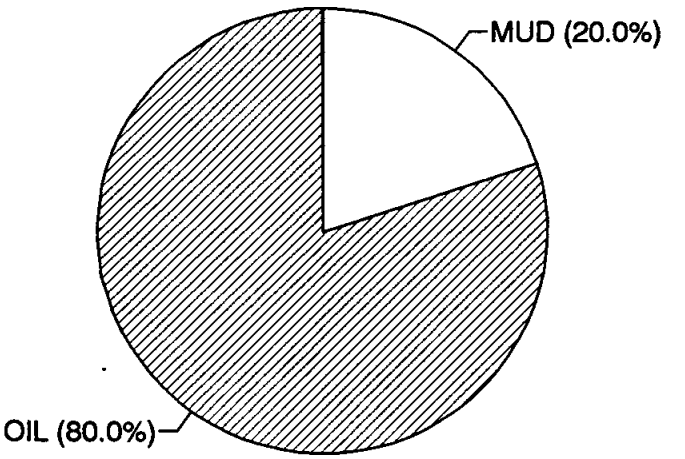
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2397	2419.9
(B) FIRST INITIAL FLOW PRESSURE	19	51.3
(C) FIRST FINAL FLOW PRESSURE	29	31.5
(D) INITIAL CLOSED-IN PRESSURE	769	771.1
(E) SECOND INITIAL FLOW PRESSURE	29	59.3
(F) SECOND FINAL FLOW PRESSURE	39	33.5
(G) FINAL CLOSED-IN PRESSURE	926	922.3
(H) FINAL HYDROSTATIC MUD	2367	2361.6

CALCULATED RECOVERY ANALYSIS WEIGHT PIPE

DST # 5 TICKET # 6385

SAMPLE	TOTAL		GAS		OIL		WATER		MUD
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
1	15	0	0	100	15	0	0	0	0
2	20	0	0	65	13	0	0	35	7
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	35	0	0	80	28	0	0	20	7

			HRS OPEN	BBL/DAY
BBL OIL=	0.196	*	1.5	3.136
BBL WATER=	0	*		0
BBL MUD=	0.049			
BBL GAS=	0			



INITIAL FLOW

RECORDER 13337 DST # 5

TIME(MIN)	PRESSURE	<> PRESSURE
0	51.3	51.3
3	33.5	-17.8
6	31.5	-2.0
9	29.6	-1.9
12	26.6	-3.0
15	27.6	1.0
18	28.6	1.0
21	29.6	1.0
24	30.5	0.9
27	31.5	1.0

FINAL FLOW

RECORDER 13337 DST # 5

TIME(MIN)	PRESSURE	<> PRESSURE
0	59.3	59.3
3	37.5	-21.8
6	31.5	-6.0
9	31.5	0.0
12	31.5	0.0
15	31.5	0.0
18	31.5	0.0
21	31.5	0.0
24	31.5	0.0
27	31.5	0.0
30	31.5	0.0
33	31.5	0.0
36	31.5	0.0
39	31.5	0.0
42	31.5	0.0
45	33.5	2.0
48	33.5	0.0
51	33.5	0.0
54	33.5	0.0
57	33.5	0.0

KLEIN "B" #1 DST #5
INITIAL SHUTIN

30 INITIAL FLOW TIME

SLOPE P* PSI/CYCLE PSI

TIME(MIN)	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
3	37.5	1.041	37.5	11
6	47.4	0.778	9.9	6
9	61.2	0.637	13.8	4
12	77.1	0.544	15.9	4
15	96.8	0.477	19.7	3
18	118.5	0.426	21.7	3
21	146.2	0.385	27.7	2
24	183.7	0.352	37.5	2
27	243.1	0.325	59.4	2
30	322.1	0.301	79.0	2
33	438.7	0.281	116.6	2
36	582.4	0.263	143.7	2
39	745.6	0.248	163.2	2
42	771.1	0.234	25.5	2

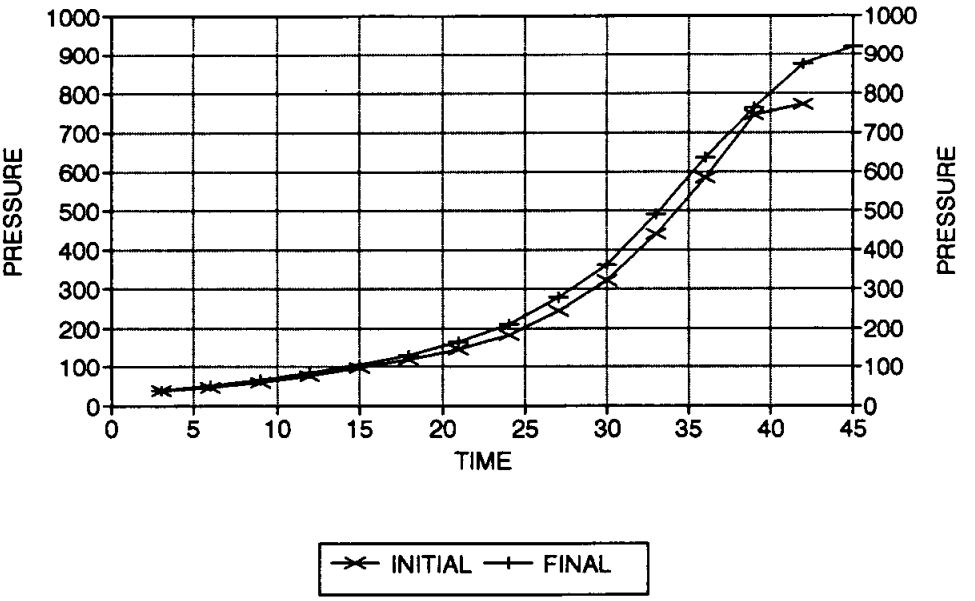
KLEIN "B" #1 DST #5
FINAL SHUTIN

90 TOTAL FLOW TIME

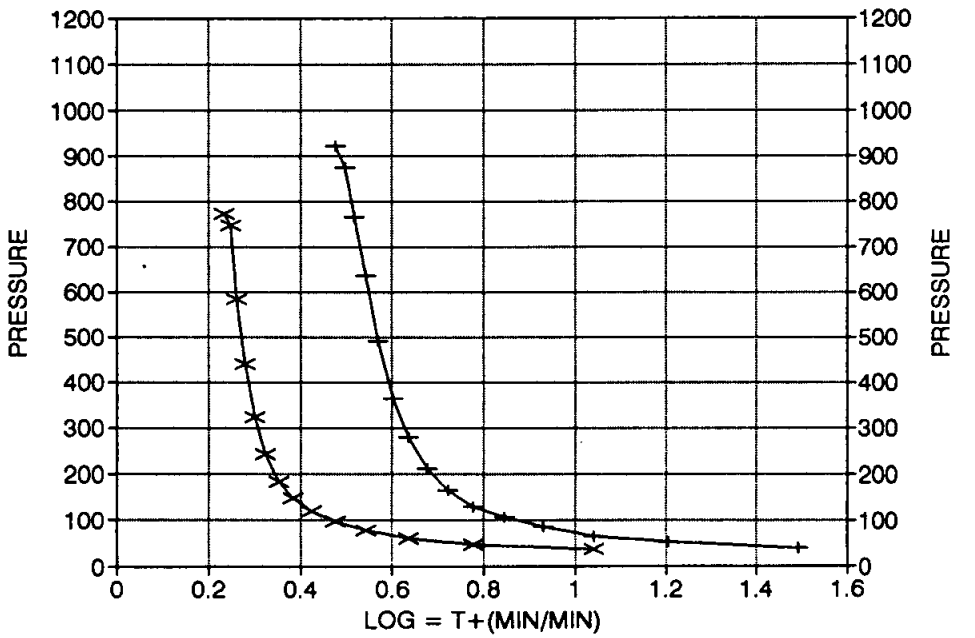
SLOPE P* PSI/CYCLE PSI

	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
3	39.5	1.491	39.5	31
6	53.3	1.204	13.8	16
9	65.2	1.041	11.9	11
12	85.0	0.929	19.8	9
15	104.7	0.845	19.7	7
18	128.4	0.778	23.7	6
21	164.0	0.723	35.6	5
24	209.4	0.677	45.4	5
27	278.6	0.637	69.2	4
30	361.6	0.602	83.0	4
33	490.1	0.571	128.5	4
36	635.5	0.544	145.4	4
39	765.2	0.520	129.7	3
42	873.2	0.497	108.0	3
45	922.3	0.477	49.1	3

KLEIN "B" #1 / DST #5
DELTA T DELTA P



HORNER PLOT



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 6385

Well Name & No. KLEIN 'B' 1 Test No. 5 Date 7-21-93

Company ABERCROMBIE DRILLING Zone Tested CHEROKEE

Address 150 N MAIN STE 801 WICHITA Elevation 3164 GL

Co. Rep./Geo. ROBERT McCANN Cont. ALA Rig 8 Est. Ft. of Pay 4

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

No. of Copies ____ Distribution Sheet ____ Yes ____ No Turnkey ____ Yes ____ No ____ Evaluation

Interval Tested 4710 - 4730 Drill Pipe Size 4½ XH

Anchor Length 20 Top Choke — 1" ____ Bottom Choke — ¼" ____

Top Packer Depth 4705 Hole Size — 7⅞" ____ Rubber Size — 6¾" ____

Bottom Packer Depth 4710 Wt. Pipe I.D. — 2.7 Ft. Run 468

Total Depth 4730 Drill Collar — 2.25 Ft. Run ____

Mud Wt. 9.2 LCM 1 lb/gal. Viscosity 52 Filtrate 10.2

Tool Open @ 8:50 PM Initial Blow SURF TO 3¼" IN 30 MIN

Final Blow OPEN 3" TO BOTTOM IN 40 MIN

Recovery — Total Feet 45 Feet of Gas in Pipe 271 Flush Tool? ____

Rec. 15	Feet Of	C. Oil	%gas 100	%oil	%water	%mud
Rec. 20	Feet Of	M.C. Oil	%gas 65	%oil	%water 45	%mud
Rec. ____	Feet Of	____	%gas	%oil	%water	%mud
Rec. ____	Feet Of	____	%gas	%oil	%water	%mud
Rec. ____	Feet Of	____	%gas	%oil	%water	%mud

BHT 114 °F Gravity ____ °API @ ____ °F Corrected Gravity ____ °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides 9000 ppm System

(A) Initial Hydrostatic Mud	2397 PSI	AK1 Recorder No.	13337	Range	5975
(B) First Initial Flow Pressure	19 PSI	@ (depth)	4712	w/Clock No.	27560
(C) First Final Flow Pressure	29 PSI	AK1 Recorder No.	10332	Range	4050
(D) Initial Shut-In Pressure	769 PSI	@ (depth)	4725	w/Clock No.	25328
(E) Second Initial Flow Pressure	29 PSI	AK1 Recorder No.	____	Range	____
(F) Second Final Flow Pressure	39 PSI	@ (depth)	____	w/Clock No.	____
(G) Final Shut-In Pressure	926 PSI	Initial Opening	30	Test	✓
(H) Final Hydrostatic Mud	2367 PSI	Initial Shut-In	45	Jars	____
		Final Flow	60	Safety Joint	____
		Final Shut-In	45	Straddle	____
				Circ. Sub	✓ NC
				Sampler	____
				Extra Packer	____
				Other	cut - partial
				TOTAL PRICE $	____

Approved By Robert E. McCann

Our Representative Mark Thorsheim

Printcraft Printers - Hays, KS

WELL NAME HEIN 'B' 1 # DST # 5 RECORDER # 13337

INIT. HYD. MUD. 2453 FINAL HYD. MUD 2394

	INITIAL FLOW		INITIAL SHUTIN		FINAL FLOW		FINAL SHUTIN	
	MINUTES 30		MINUTES 45		MINUTES 60		MINUTES 45	
	INTERVAL 3		INTERVAL 3		INTERVAL 3		INTERVAL 3	
	52		32		60		[redacted]	
1	34		38		38		40	
2	32		48		32		54	
3	30		62		32		66	
4	28		78		32		84	
5	28		98		32		106	
6	30		120		32		130	
7	30		148		32		166	
8	32		184		32		212	
9	32		246		32		282	
10			326		32		366	
11			414		32		496	
12			590		32		644	
13			756		32		776	
14			782		32		886	
15					34		936	
16					34			
17					34			
18					34			
19					34			
20								
21								
22								
23								
24								
25								
26								
27								

9 flow

0.052	51.37947
0.034	33.558
0.032	31.57867
0.03	29.6
0.027	26.667
0.028	27.64533
0.029	28.623
0.03	29.6
0.031	30.58925
0.032	31.57867

9SD

0.038	37.51867
0.048	47.4192
0.062	61.27925
0.078	77.11925
0.098	96.83135
0.12	118.56
0.148	146.224
0.186	183.768
0.46	~~454.5812~~ 243.1
0.326	322.1092
0.444	438.7732
0.59	582.4893
0.756	745.6061
0.782	771.1324

FSD

0.04	39.5
0.054	53.3592
0.066	65.23825
0.086	85.01315
0.106	104.728
0.13	128.44
0.166	164.008
0.212	209.456
0.282	278.616
0.366	361.6684
0.496	490.1482
0.644	635.5667
0.776	765.2424
0.886	873.2574
0.936	922.3939

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KLEIN "B" #1 Test No. 6 Date 7/22/93

Company ABERCROMBIE DRILLING INC Zone MORROW

Address 150 N MAIN #801 WICHITA KS 67202 Elevation 3164

Co. Rep./Geo. ROBERT McCANN Cont. ABERCROMBIE RIG #8 Est. Ft. of Pay

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

Interval Tested 4823-4887 Drill Pipe Size 4.5" XH

Anchor Length 64 Wt. Pipe I.D. - 2.7 Ft. Run 438

Top Packer Depth 4818 Drill Collar -- 2.25 Ft. Run

Bottom Packer Depth 4823 Mud Wt. 9.3 lb/Gal.

Total Depth 4887 Viscosity 53 Filtrate 10.4

Tool Open @ 11:45 PM Initial Blow WEAK SURFACE TO 1" IN 30 MINUTES

Final Blow NO BLOW - FLUSHED TOOL - NO BLOW

Recovery - Total Feet 67 Flush Tool? YES

Rec. 67 Feet of OIL STAINED MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 115 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 10000 ppm System

(A) Initial Hydrostatic Mud 2426.9 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 30.4 PSI @ (depth) 4825 w / Clock No. 27560

(C) First Final Flow Pressure 45.8 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 1022.6 PSI @ (depth) 4882 w / Clock No. 25828

(E) Second Initial Flow Pressure 44.6 PSI AK1 Recorder No. Range

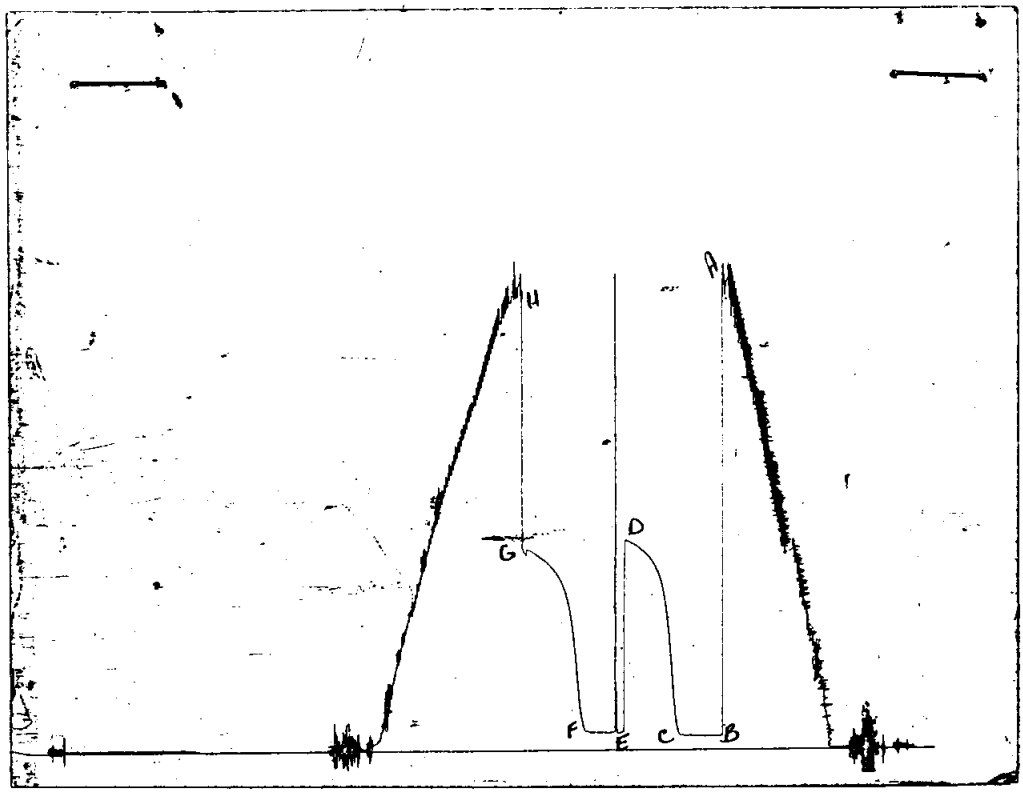
(F) Second Final Flow Pressure 44.6 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 988.7 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2411.5 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative MARK HERSKOWITZ

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2436	2426.9
(B) FIRST INITIAL FLOW PRESSURE	29	30.4
(C) FIRST FINAL FLOW PRESSURE	39	45.8
(D) INITIAL CLOSED-IN PRESSURE	1024	1022.6
(E) SECOND INITIAL FLOW PRESSURE	39	44.6
(F) SECOND FINAL FLOW PRESSURE	39	44.6
(G) FINAL CLOSED-IN PRESSURE	985	988.7
(H) FINAL HYDROSTATIC MUD	2407	2411.5

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 6386

Well Name & No. KLEIN "B" 1 Test No. 6 Date 7-22-93

Company ABERCROMBIE DRILLING Zone Tested MORROW

Address 150 N MAIN STE 801 Wichita Elevation 3164 GL

Co. Rep./Geo. ROBERT McCANN Cont. ALLA Rig 8 Est. Ft. of Pay —

Location: Sec. 4 Twp. 21S Rge. 35W Co. KEARNY State KS

No. of Copies ____ Distribution Sheet ____ Yes ____ No Turnkey ____ Yes ____ No ____ Evaluation

Interval Tested 4823 - 4887 Drill Pipe Size 4½ XH

Anchor Length 64 Top Choke — 1" ____ Bottom Choke — ¾" ____

Top Packer Depth 4818 Hole Size — 7⅞" ____ Rubber Size — 6¾" ____

Bottom Packer Depth 4823 Wt. Pipe I.D. — 2.7 Ft. Run 438

Total Depth 4887 Drill Collar — 2.25 Ft. Run ____

Mud Wt. 9.3 LCM 1/2 lb/gal. Viscosity 53 Filtrate 10.4

Tool Open @ 11:45 PM Initial Blow WEAK SUR TO 1" IN 30 MIN

Final Blow No Blow Flush Tool / No Blow

Recovery — Total Feet 67 Feet of Gas in Pipe — Flush Tool? 1:05 AM

Rec. 67	Feet Of ~~Mud~~	%gas TR	%oil	%water 100	%mud	
Rec. ____	Feet Of Oil S Mud	%gas	%oil	%water	%mud	
Rec. ____	Feet Of	%gas	%oil	%water	%mud	
Rec. ____	Feet Of	%gas	%oil	%water	%mud	
Rec. ____	Feet Of	%gas	%oil	%water	%mud	

BHT 115 °F Gravity ____ °API @ ____ °F Corrected Gravity ____ °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides 10,000 ppm System

(A) Initial Hydrostatic Mud	2436 PSI	AK1 Recorder No. 13337	Range 3975		
(B) First Initial Flow Pressure	29 PSI	@ (depth) 4825	w/Clock No. 27500		
(C) First Final Flow Pressure	39 PSI	AK1 Recorder No. 10332	Range 4050		
(D) Initial Shut-In Pressure	1024 PSI	@ (depth) 4882	w/Clock No. 25828		
(E) Second Initial Flow Pressure	39 PSI	AK1 Recorder No. ____	Range ____		
(F) Second Final Flow Pressure	39 PSI	@ (depth) ____	w/Clock No. ____		
(G) Final Shut-In Pressure	985 PSI	Initial Opening 30	Test ✓ 600		
(H) Final Hydrostatic Mud	2407 PSI	Initial Shut-In 45	Jars ✓ 200		
		Final Flow 30	Safety Joint ✓ 50		
		Final Shut-In 45	Straddle ____		
			Circ. Sub ✓ NC		
			Sampler ____		
			Extra Packer ____		
			Other ____		
			TOTAL PRICE $ 850.00		

Approved By Robert E. McCann

Our Representative Mark Hershey

Printcraft Printers - Hays, KS