TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HANKEN #3 Test No. 1 Date 3/4/93

Company AINSWORTH OPERATING Zone ARBUCKLE

Address P.O. BOX 1269 COLORADO SPRINGS CO 80901 Elevation 1914

Co. Rep./Geo. KENT ROBERTS Cont. ABERCROMBIE RIG #8 Est. Ft. of Pay

Location: Sec. 6 Twp. 17S Rge. 10W Co. ELLSWORTH State KS

Interval Tested 3333-3387 Drill Pipe Size 4.5 XH

Anchor Length 54 Wt. Pipe I.D. - 2.7 Ft. Run 343

Top Packer Depth 3328 Drill Collar -- 2.25 Ft. Run

Bottom Packer Depth 3333 Mud Wt. 9.4 lb/Gal.

Total Depth 3387 Viscosity 45 Filtrate 11.2

Tool Open @ 6:09 AM Initial Blow 1" BLOW BUILDING TO 10" -BOTTOM OF BUCKET
SURFACE BLOW BACK ON SHUT IN

Final Blow 1/4" BLOW BUILDING TO BOTTOM IN 45 MINUTES

Recovery - Total Feet 250 Flush Tool? NO

Rec. 110 Feet of GAS IN PIPE

Rec. 70 Feet of CLEAN GASSY OIL-30% GAS /70% OIL

Rec. 120 Feet of GASSY MUD CUT OIL-10% GAS/ 40% OIL/ 50% MUD

Rec. 60 Feet of HEVY OIL CUT MUD-30% OIL /70% MUD

Rec. Feet of

BHT 99 °F Gravity 44 °API @ 70 °F Corrected Gravity 43 °API

RW @ °F Chlorides ppm Recovery Chlorides ppm System

(A) Initial Hydrostatic Mud 1696.6 PSI AK1 Recorder No. 11058 Range 4400

(B) First Initial Flow Pressure 55.6 PSI @ (depth) 3341 w / Clock No. 26199

(C) First Final Flow Pressure 102.3 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 894.7 PSI @ (depth) 3383 w / Clock No. 19960

(E) Second Initial Flow Pressure 112.6 PSI AK1 Recorder No. Range

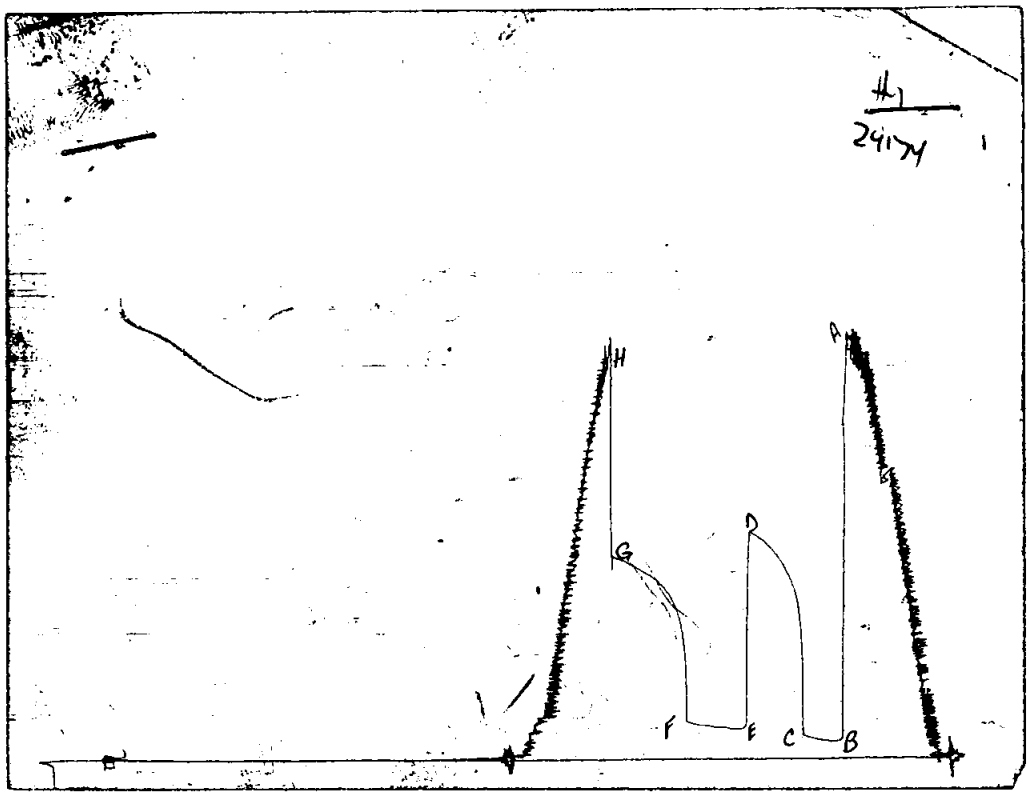
(F) Second Final Flow Pressure 145.8 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 796.3 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1655.6 PSI Initial Shut-in 45 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	1673	1696.6
(B) FIRST INITIAL FLOW PRESSURE	53	55.6
(C) FIRST FINAL FLOW PRESSURE	82	102.3
(D) INITIAL CLOSED-IN PRESSURE	888	894.7
(E) SECOND INITIAL FLOW PRESSURE	104	112.6
(F) SECOND FINAL FLOW PRESSURE	134	145.8
(G) FINAL CLOSED-IN PRESSURE	789	796.3
(H) FINAL HYDROSTATIC MUD	1658	1655.6

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

3 - Colo Springs
2 - Wichita

Test Ticket

№ 5703

Well Name & No. Hanken #3 Test No. 1 Date 3-4-93

Company Ainsworth Operating Company Zone Tested Arbuckle

Address P O Box 1269 Colorado Springs Co 80901 Elevation 1914

Co. Rep./Geo. Kent Roberts | Bud Ainsworth Cont. Abercrombie #8 Est. Ft. of Pay

Location: Sec. 6 Twp. 17s Rge. 10w Co. Ellsworth State

No. of Copies 5 Distribution Sheet ____ Yes ____ No Turnkey ____ Yes ____ No ____ Evaluation

Interval Tested 3333 - 3387 Drill Pipe Size 4½ XH

Anchor Length 54 Top Choke — 1" ____ Bottom Choke — ¾" ____

Top Packer Depth 3328 Hole Size — 7⅞" ____ Rubber Size — 6¾" ____

Bottom Packer Depth 3333 Wt. Pipe I.D. — 2.7 Ft. Run 343

Total Depth 3387 Drill Collar — 2.25 Ft. Run ____

Mud Wt. 9.4 lb / gal. Viscosity 45 Filtrate 11.2

Tool Open @ 6:09 PM Initial Blow 1" blow building to 10" (bottom of bucket)
(surface blowback on shut-in)

Final Blow ¼" blow building to bottom in 45 minutes

Recovery — Total Feet 250 Feet of Gas in Pipe 110 Flush Tool? ____

Rec. 70	Feet Of	cl gassy oil	30	%gas 70	%oil	%water		%mud	
Rec. 120	Feet Of	gassy MCO	10	%gas 40	%oil	%water	50	%mud	
Rec. 60	Feet Of	HOCM		%gas 30	%oil	%water	70	%mud	
Rec. ____	Feet Of			%gas	%oil	%water		%mud	
Rec. ____	Feet Of			%gas	%oil	%water		%mud	

BHT 99 °F Gravity 44 °API @ 70 °F Corrected Gravity 43 °API

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

(A) Initial Hydrostatic Mud	1673 PSI	AK1 Recorder No.	11058	Range	4400
(B) First Initial Flow Pressure	53 PSI	@ (depth)	3341	w/Clock No.	26199
(C) First Final Flow Pressure	82 PSI	AK1 Recorder No.	24174	Range	3050
(D) Initial Shut-In Pressure	888 PSI	@ (depth)	3383	w/Clock No.	19960
(E) Second Initial Flow Pressure	104 PSI	AK1 Recorder No.	____	Range	____
(F) Second Final Flow Pressure	134 PSI	@ (depth)	____	w/Clock No.	____
(G) Final Shut-In Pressure	789 PSI	Initial Opening	30	Test	Y
(H) Final Hydrostatic Mud	1658 PSI	Initial Shut-In	45	Jars	____
		Final Flow	45	Safety Joint	____
		Final Shut-In	60	Straddle	____
				Circ. Sub	____
				Sampler	____
				Extra Packer	____
				Other	____
				TOTAL PRICE $	____

Approved By Ainsworth

Our Representative Tom Simpson

Printcraft Printers - Hays, KS

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HANKEN #3 Test No. 2 Date 3/5/93

Company AINSWORTH OPERATING Zone ARBUCKLE

Address P.O. BOX 1269 COLORADO SPRINGS CO 80901 Elevation 1914

Co. Rep./Geo. KENT ROBERTS Cont. ABERCROMBIE RIG #8 Est. Ft. of Pay 8

Location: Sec. 6 Twp. 17S Rge. 10W Co. ELLSWORTH State KS

Interval Tested 3387-3396 Drill Pipe Size 4.5 XH

Anchor Length 9 Wt. Pipe I.D. - 2.7 Ft. Run 373

Top Packer Depth 3382 Drill Collar -- 2.25 Ft. Run

Bottom Packer Depth 3387 Mud Wt. 9.4 lb/Gal.

Total Depth 3396 Viscosity 45 Filtrate 11.2

Tool Open @ 5:50 AM Initial Blow STRONG-BOTTOM OF BUCKET IN 45 SECONDS
WEAK BLOW BACK ON SHUT IN - DIED IN 15 MINUTES

Final Blow STRONG-BOTTOM OF BUCKET IN 2.5 MINUTES

Recovery - Total Feet 1655 Flush Tool? NO

Rec. 80 Feet of GAS IN PIPE

Rec. 1400 Feet of GASSY OIL - 30% GAS / 70% OIL

Rec. 255 Feet of SLTLY OIL CUT MUDDY WATER-5% OIL/ 85% WTR/ 10% MUD

Rec. Feet of

Rec. Feet of

BHT 109 °F Gravity 44 °API @ 70 °F Corrected Gravity 43 °API

RW 0.5 @ 53 °F Chlorides 19000 ppm Recovery Chlorides 8000 ppm System

(A) Initial Hydrostatic Mud 1696.6 PSI AK1 Recorder No. 11058 Range 4400

(B) First Initial Flow Pressure 159.7 PSI @ (depth) 3389 w / Clock No. 31154

(C) First Final Flow Pressure 425.7 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 782.2 PSI @ (depth) 3393 w / Clock No. 27567

(E) Second Initial Flow Pressure 499.1 PSI AK1 Recorder No. Range

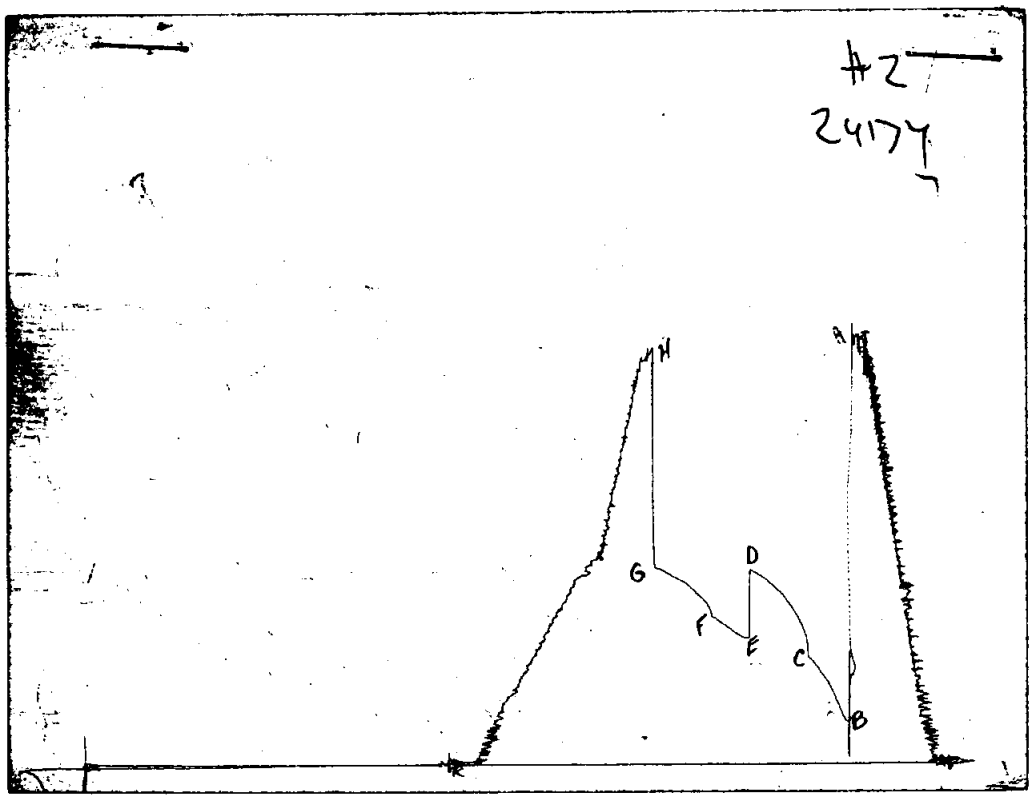
(F) Second Final Flow Pressure 590.8 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 798.9 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1620.6 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1681	1696.6
(B) FIRST INITIAL FLOW PRESSURE	164	159.7
(C) FIRST FINAL FLOW PRESSURE	415	425.7
(D) INITIAL CLOSED-IN PRESSURE	760	782.2
(E) SECOND INITIAL FLOW PRESSURE	491	499.1
(F) SECOND FINAL FLOW PRESSURE	568	590.8
(G) FINAL CLOSED-IN PRESSURE	781	798.9
(H) FINAL HYDROSTATIC MUD	1620	1620.6

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

AINSWORTH OPERATING HANKEN #3 DST 2

6 17S 10W ELLSWORTH KS

****

ELEVATION:	1914 KB	EST. PAY	8	FT
DATUM:	-1480	ZONE TESTED:	ARBUCKLE	
TEST INTERVAL:	3387-3396	TIME INTERVALS:	30-45-30-45	
RECORDER DEPTH:	3393	VISCOSITY:	4.929	CP
BOTTOM HOLE TEMP:	109	HOLE SIZE:	7.875	IN

****

CUBIC FEET OF GAS IN PIPE:	6.39			
TOTAL FEET OF RECOVERY:	1655.00	CORRECTED PIPE FILLUP:	1683.191	
TOTAL BARRELS OF RECOVERY:	20.84	CORR. BARRELS OF RECOVERY	21.239	BBL
BARRELS IN DRILL PIPE:	18.23	API GRAVITY:	43	
BARRELS IN WEIGHT PIPE:	2.61	FLUID GRADIENT:	0.351	
BARRELS IN DRILL COLLARS:	0.00			
GAS OIL RATIO:	0.31	CU.FT/BBL		
BUBBLE POINT PRESSURE:	3.45			
UNCORRECTED INITIAL PRODUCTION:			500.18	BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			509.74	BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			202.267	

****

INITIAL SLOPE	613.08 PSI/CYCL	FINAL SLOPE	317.59	PSI/CYCLE
INITIAL P*	926 PSI	FINAL P*	921	PSI

****

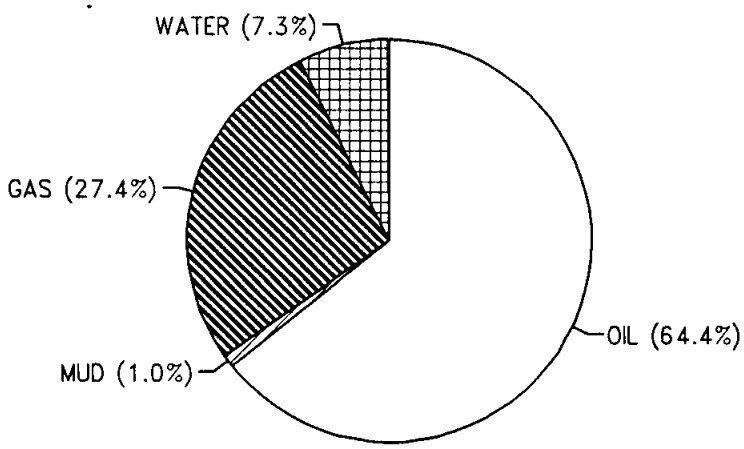
TRANSMISSIBILITY	260.97	(MD.-FT./CP.)
PERMEABILITY	160.79	(MD.)
INDICATED FLOW CAPACITY	1286.33	(MD.FT)
PRODUCTIVITY INDEX	0.29	(BARREL/DAY/PSI)
DAMAGE RATIO	0.19	
RADIUS OF INVESTIGATION	98.22	(FT,)
POTENTIOMETRIC SURFACE	657.46	(FT.)
DRAWDOWN FACTOR	0.478	(%)

CALCULATED RECOVERY ANALYSIS

DST # 2 TICKET # 5704

SAMPLE	TOTAL	GAS		OIL		WATER		MUD	
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
DRILL 1	1282	30	384.6	70	897.4	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	118	30	35.4	70	82.6	0	0	0	0
PIPE 2	255	0	0	5	12.75	85	216.75	10	25.5
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	1655		420		992.75		216.75		25.5

			HRS OPEN	BBL/DAY
BBL OIL=	13.428478	*	1	322.28347
BBL WATER=	1.51725	*		36.414
BBL MUD=	0.1989			
BBL GAS =	5.716812			



INITIAL FLOW

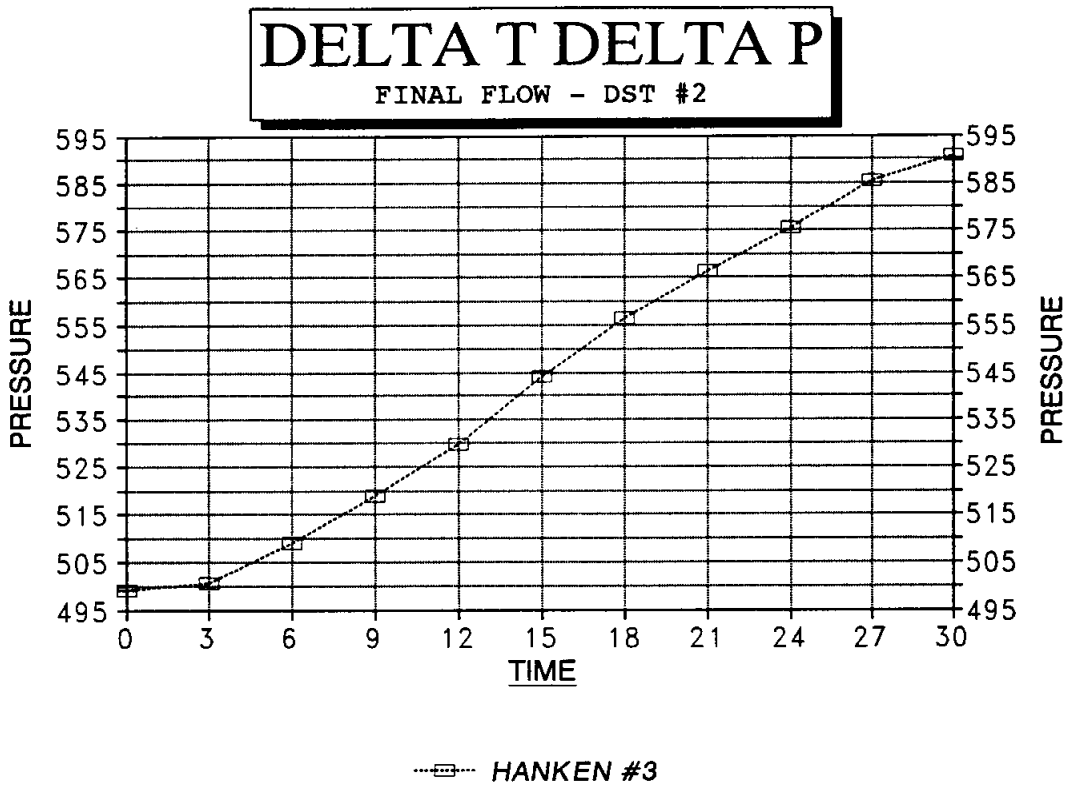
RECORDER # 24174 DST # 2

TIME(MIN)	PRESSURE	<> PRESSURE
0	159.7	159.7
3	183.8	24.1
6	219.4	35.6
9	265.6	46.2
12	295.3	29.7
15	328.8	33.5
18	347.1	18.3
21	369.2	22.1
24	391.4	22.2
27	412	20.6
30	425.7	13.7

FINAL FLOW

RECORDER # 24174 DST # 2

TIME(MIN)	PRESSURE	<> PRESSURE
0	499.1	499.1
3	500.6	1.5
6	509	8.4
9	519	10
12	529.7	10.7
15	544.2	14.5
18	556.4	12.2
21	566.3	9.9
24	575.5	9.2
27	585.4	9.9
30	590.8	5.4



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE: 202.267

HANKEN #3 DST #2
INITIAL SHUTIN

30 TOTAL FLOW TIME

Slope 613.08 psi/cycle
P * 926 psi

	TIME(MIN)	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	546.5	1.041	546.5	11
	6	580.1	0.778	33.6	6
	9	610.7	0.637	30.6	4
	12	637.4	0.544	26.7	4
	15	660.3	0.477	22.9	3
	18	680.9	0.426	20.6	3
	21	697.6	0.385	16.7	2
	24	717.4	0.352	19.8	2
	27	731.2	0.325	13.8	2
	30	744.9	0.301	13.7	2
	33	757.8	0.281	12.9	2
	36	766.2	0.263	8.4	2
X	39	773.8	0.248	7.6	2
X	42	782.2	0.234	8.4	2

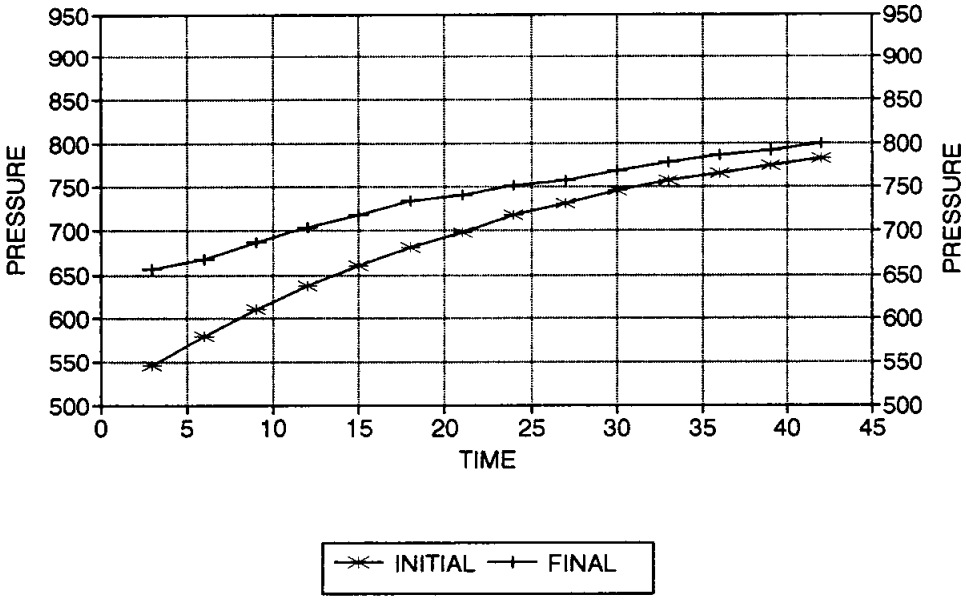
HANKEN #3 DST #2
FINAL SHUTIN

60 TOTAL FLOW TIME

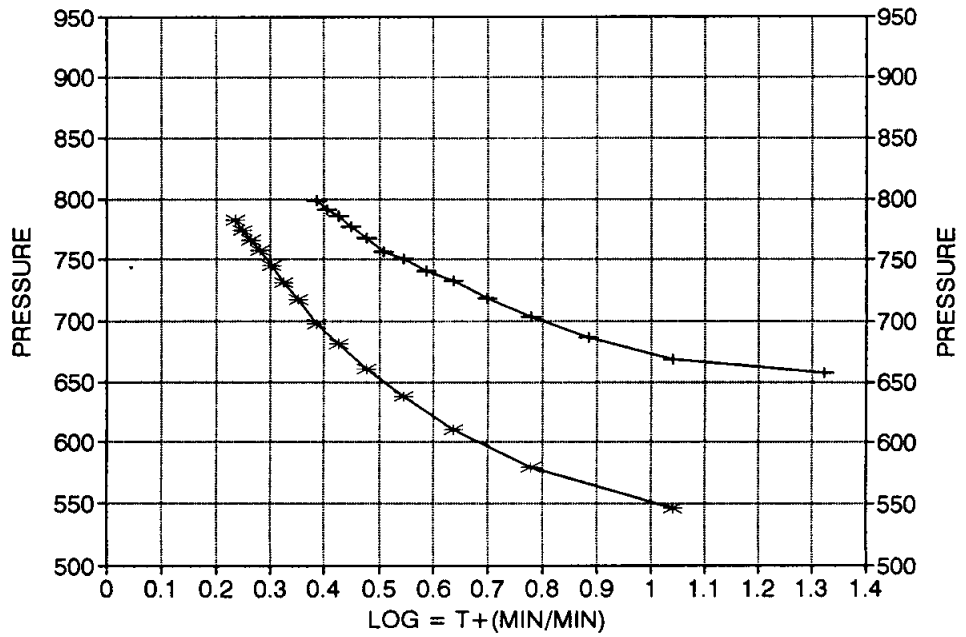
Slope 317.59 psi/cycle
P * 921 psi

		Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	657.2	1.322	657.2	21
	6	667.9	1.041	10.7	11
	9	686.2	0.885	18.3	8
	12	703.0	0.778	16.8	6
	15	718.2	0.699	15.2	5
	18	733.4	0.637	15.2	4
	21	741.1	0.586	7.7	4
	24	751.0	0.544	9.9	4
	27	757.1	0.508	6.1	3
	30	767.7	0.477	10.6	3
	33	777.6	0.450	9.9	3
X	36	786.0	0.426	8.4	3
	39	791.3	0.405	5.3	3
X	42	798.9	0.385	7.6	2

HANKEN #3 / DST #2
DELTA T DELTA P



HORNER PLOT



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No. 704

Well Name & No. Henken #3 Test No. 2 Date 3-5-93

Company Ainsworth Zone Tested Arb

Address Elevation 1914

Co. Rep. / Geo. Kent Roberts Cont. Aber #8 Est. Ft. of Pay 8

Location: Sec. 6 Twp. 17s Rge. 10w Co. Ellsworth State Ks

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

Interval Tested 3387-3396 Drill Pipe Size 4½ XH

Anchor Length 9 Top Choke — 1" Bottom Choke — ¾"

Top Packer Depth 3382 Hole Size — 7⅞" Rubber Size — 6¾"

Bottom Packer Depth 3387 Wt. Pipe I.D. — 2.7 Ft. Run 373

Total Depth 3396 Drill Collar — 2.25 Ft. Run

Mud Wt. 9.4 lb / gal. Viscosity 45 Filtrate 11.2

Tool Open @ 5:50Am Initial Blow strong - bottom of bucket in 45 seconds

weak blowback on shut-in - died in 15 min

Final Blow strong - bottom of bucket in 2½ minutes

Recovery — Total Feet 1655 Feet of Gas in Pipe 80 Flush Tool?

Rec. 1400	Feet Of	gassy oil	30 %gas	70 %oil	%water	%mud
Rec. 255	Feet Of	SOC MW	%gas	5 %oil	85 %water	10 %mud
Rec.	Feet Of		%gas	%oil	%water	%mud
Rec.	Feet Of		%gas	%oil	%water	%mud
Rec.	Feet Of		%gas	%oil	%water	%mud

BHT 109 °F Gravity °API @ °F Corrected Gravity °API

RW .5 @ 53 °F Chlorides 19,000 ppm Recovery Chlorides 8,000 ppm System

(A) Initial Hydrostatic Mud	1681 PSI	Ak1 Recorder No.	11058	Range	4400
(B) First Initial Flow Pressure	164 PSI	@ (depth)	3389	w/Clock No.	31154
(C) First Final Flow Pressure	415 PSI	AK1 Recorder No.	24174	Range	3050
(D) Initial Shut-In Pressure	760 PSI	@ (depth)	3393	w/Clock No.	27567
(E) Second Initial Flow Pressure	491 PSI	AK1 Recorder No.		Range	
(F) Second Final Flow Pressure	568 PSI	@ (depth)		w/Clock No.	
(G) Final Shut-In Pressure	781 PSI	Initial Opening	30	Test	
(H) Final Hydrostatic Mud	1620 PSI	Initial Shut-In	45	Jars	
		Final Flow	30	Safety Joint	
		Final Shut-In	45	Straddle	
				Circ. Sub	
				Sampler	
				Extra Packer	
				Other	(extra)
				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

Our Representative Paul Simpson

Printcraft Printers - Hays, KS

Ainsworth

WELL NAME 2240 DST # #2 RECORDER # 24174

INIT. HYD. MUD. 2240 1696.6 FINAL HYD. MUD 1620.6

INITIAL FLOW MINUTES 30 INTERVAL		INITIAL SHUTIN MINUTES 45 INTERVAL			FINAL FLOW MINUTES 30 INTERVAL		FINAL SHUTIN MINUTES 45 INTERVAL	
~~.250~~ .214	~~[illegible]~~ 1597	—	—	1	~~[illegible]~~ .660	~~[illegible]~~ 499.1	—	—
.246		.722		2	.662		867	
.293		766		3	.623		881	
.354		806		4	686		905	
.393		841		5	700		927	
.437		871		6	719		947	
.461		898		7	735		968	
.490		920		8	748		977	
.519		946		9	760		990	
.546		964		10	773		998	
~~[illegible]~~ .564	~~[illegible]~~ 425.7	983		11	~~[illegible]~~ 780	~~[illegible]~~ 590.8	1.012	
		999		12			1.025	
		1.010		13			1.036	
		1.020		14			1.043	
		1.031	782.2	15			1.053	798.9
		~~[illegible]~~	~~[illegible]~~	16			~~1.063~~	~~[illegible]~~
				17				
				18				
				19				
				20				
				21				
				22				
				23				
				24				
				25				
				26				
				27				

950

1	0.722	546.5244
2	0.766	580.14
3	0.806	610.7157
4	0.841	637.4164
5	0.871	660.3146
6	0.898	680.9324
7	0.92	697.6922
8	0.946	717.4984
9	0.964	731.2133
10	0.982	744.9305
11	0.999	757.8877
12	1.01	766.2544
13	1.02	773.8592
14	1.031	782.2248

750

1	0.867	657.2608
2	0.881	667.9498
3	0.905	686.2678
4	0.927	703.0242
5	0.947	718.2603
6	0.967	733.4993
7	0.977	741.1199
8	0.99	751.0278
9	0.998	757.1255
10	1.012	767.7753
11	1.025	777.6617
12	1.036	786.0275
13	1.043	791.3515
14	1.053	798.9574

1	0.214	159.7287
2	0.246	183.8639
3	0.293	219.4308
4	0.354	265.6934
5	0.393	295.3658
6	0.437	328.8559
7	0.461	347.1501
8	0.49	369.288
9	0.519	391.4151
10	0.546	412.0195
11	0.564	425.769

1	0.66	499.1278
2	0.662	500.657
3	0.673	509.0691
4	0.686	519.0147
5	0.7	529.73
6	0.719	544.2338
7	0.735	556.4526
8	0.748	566.3839
9	0.76	575.554
10	0.773	585.4912
11	0.78	590.8433

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HANKEN #3 Test No. 3 Date 3/5/93

Company AINSWORTH OPERATING Zone ARBUCKLE

Address P.O. BOX 1269 COLORADO SPRINGS CO 80901 Elevation 1914

Co. Rep./Geo. KENT ROBERTS Cont. ABERCROMBIE RIG #8 Est. Ft. of Pay

Location: Sec. 6 Twp. 17S Rge. 10W Co. ELLSWORTH State KS

Interval Tested 3397-3406 Drill Pipe Size 4.5 XH

Anchor Length 9 Wt. Pipe I.D. - 2.7 Ft. Run 373

Top Packer Depth 3392 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 3397 Mud Wt. 9.4 lb/Gal.

Total Depth 3406 Viscosity 43 Filtrate 11.2

Tool Open @ 5:35 PM Initial Blow STRONG-BOTTOM OF BUCKET IN 30 SECONDS

Final Blow STRONG-OFF BOTTOM -45 SECONDS-NO BLOW BACK ON EITHER SHUT IN

Recovery - Total Feet 2075 Flush Tool? NO

Rec. 20 Feet of CLEAN OIL

Rec. 2055 Feet of SURFACE WATER W/ SPOTS-1%OIL/95%WTR/4%MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

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

RW 0.6 @ 60 °F Chlorides 13000 ppm Recovery Chlorides 8000 ppm System

(A) Initial Hydrostatic Mud 1677.6 PSI AK1 Recorder No. 11058 Range 4400

(B) First Initial Flow Pressure 231.6 PSI @ (depth) 3398 w / Clock No. 26199

(C) First Final Flow Pressure 654.8 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 967.9 PSI @ (depth) 3402 w / Clock No. 31154

(E) Second Initial Flow Pressure 763.2 PSI AK1 Recorder No. Range

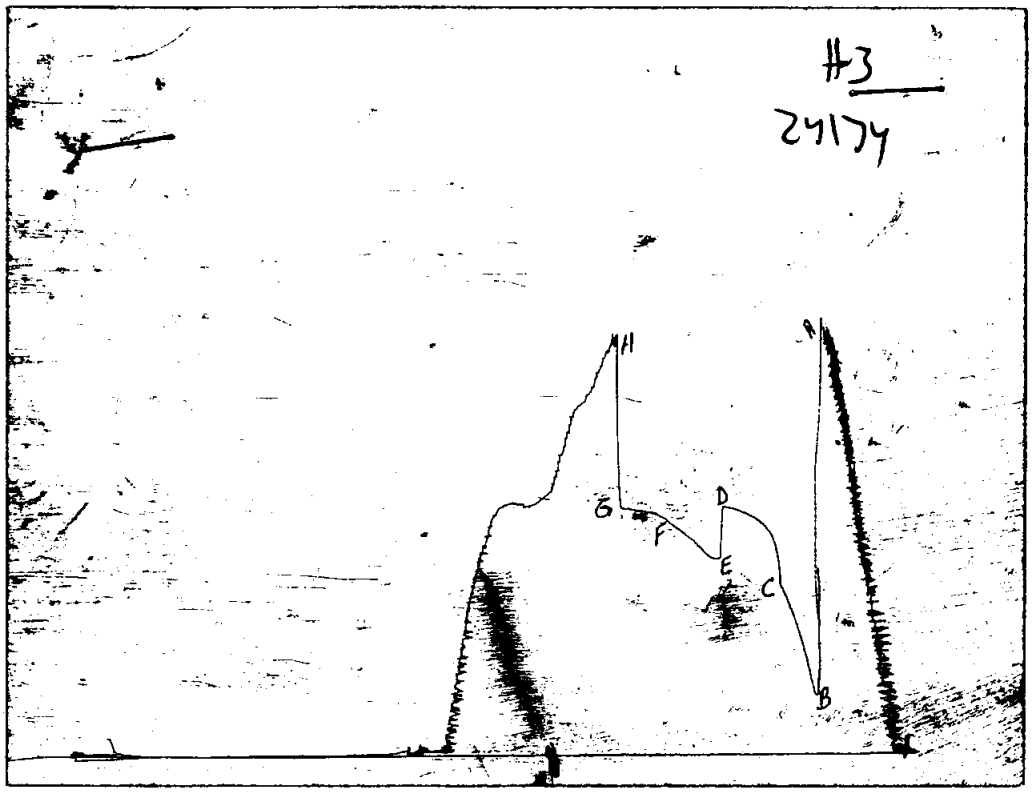
(F) Second Final Flow Pressure 935.7 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 966.8 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1660.6 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1673	1677.6
(B) FIRST INITIAL FLOW PRESSURE	225	231.6
(C) FIRST FINAL FLOW PRESSURE	652	654.8
(D) INITIAL CLOSED-IN PRESSURE	963	967.9
(E) SECOND INITIAL FLOW PRESSURE	759	763.2
(F) SECOND FINAL FLOW PRESSURE	933	935.7
(G) FINAL CLOSED-IN PRESSURE	963	966.8
(H) FINAL HYDROSTATIC MUD	1658	1660.6

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No. 5705

Well Name & No. Hanken #3 Test No. 3 Date 3-5-93

Company Ainsworth Zone Tested Arbuckle

Address _____ Elevation 1914 KB

Co. Rep./Geo. Kent Roberts Cont. Abe #8 Est. Ft. of Pay _____

Location: Sec. 6 Twp. 17s Rge. 10w Co. Ellsworth State KS

No. of Copies 5 Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No _____ Evaluation

Interval Tested 3397-3406 Drill Pipe Size 4½ XH

Anchor Length 9 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 3392 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 3397 Wt. Pipe I.D. — 2.7 Ft. Run 373

Total Depth 3406 Drill Collar — 2.25 Ft. Run _____

Mud Wt. 9.4 lb/gal. Viscosity 43 Filtrate 11.2

Tool Open @ 5:35 PM Initial Blow strong - bottom of bucket in 30 sec

Final Blow strong - off bottom - 45 seconds - no blow back on either setting

Recovery — Total Feet 2075 Feet of Gas in Pipe _____ Flush Tool? _____

Rec. 20	Feet Of	cl oil	%gas	%oil	%water	%mud
Rec. 2055	Feet Of	sulfur water w/spots	%gas 1	%oil 95	%water 4	%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 .60 @ 60 °F Chlorides 13,000 ppm Recovery Chlorides 8,000 ppm System

(A) Initial Hydrostatic Mud	1673 PSI	AK1 Recorder No. 11058	Range 4400		
(B) First Initial Flow Pressure	225 PSI	@ (depth) 3398	w/Clock No. 26199		
(C) First Final Flow Pressure	652 PSI	AK1 Recorder No. 24174	Range 3050		
(D) Initial Shut-In Pressure	963 PSI	@ (depth) 3402	w/Clock No. 31154		
(E) Second Initial Flow Pressure	759 PSI	AK1 Recorder No. _____	Range _____		
(F) Second Final Flow Pressure	933 PSI	@ (depth) _____	w/Clock No. _____		
(G) Final Shut-In Pressure	963 PSI	Initial Opening 30	Test 600.00		
(H) Final Hydrostatic Mud	1658 PSI	Initial Shut-In 45	Jars _____		
		Final Flow 30	Safety Joint _____		
		Final Shut-In 45	Straddle _____		
			Circ. Sub X used 350.00		
			Sampler _____		
			Extra Packer _____		
			Other _____		
			TOTAL PRICE $ 635.00		

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 Kent Roberts

Our Representative Paul Simpson

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