

15-187-20864

10-30s-43w

WELL NAME: Browning C #4
COMPANY: Stepco Well Service
LOCATION: Sec. 13 Twp. 19S Rge. 10W
Rice County Kansas
DATE: 12/26/96

TRILOBITE TESTING L.L.C.

OPERATOR : Stepco Well Service
WELL NAME: Browning C #4
LOCATION : 13-19S-10W Rice KS
INTERVAL : 2822.00 To 2860.00 ft

DATE 12/21/96
KB 1750.00 ft TICKET NO: 8897 DST #1
GR 1742.00 ft FORMATION: Douglas Sand
TD 2860.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 45 Rec.	11084	11084	13849			PF Fr. 0015 to 0100 hr
SI 45 Range(Psi)	4300.0	4300.0	4375.0	0.0	0.0	IS Fr. 0100 to 0145 hr
SF 45 Clock(hrs)	12hr	12hr	12hr			SF Fr. 0145 to 0230 hr
FS 45 Depth(ft)	2857.0	2857.0	2826.0	0.0	0.0	FS Fr. 0230 to 1315 hr

	Field	1	2	3	4	
A. Init Hydro	1325.0	1341.0	0.0	0.0	0.0	T STARTED 1130 hr
B. First Flow	44.0	55.0	0.0	0.0	0.0	T ON BOTM 0010 hr
B1. Final Flow	33.0	127.0	0.0	0.0	0.0	T OPEN 0015 hr
C. In Shut-in	121.0	64.0	0.0	0.0	0.0	T PULLED 0315 hr
D. Init Flow	44.0	58.0	0.0	0.0	0.0	T OUT 0430 hr
E. Final Flow	44.0	58.0	0.0	0.0	0.0	
F. Fl Shut-in	77.0	88.0	0.0	0.0	0.0	
G. Final Hydro	1315.0	1325.0	0.0	0.0	0.0	
Inside/Outside	o	o	i			

RECOVERY

Tot Fluid 45.00 ft of 0.00 ft in DC and 45.00 ft in DP
45.00 ft of Gas Cut Oily Mud 6%gas 14%Oil 80%Mud
75.00 ft of Gas In Pipe
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:
Weak Blow Built to Approx. 4" in
Bucket

Initial Shut In:
Weak Blow Back Died in approx 1 min

Final Flow:
Strong Blow Built to the Bottom of
the bucket in 10 mins

Final Shut In:
No Blow Back died in less than 1 min

SAMPLES:
SENT TO:

Test Successful: Y

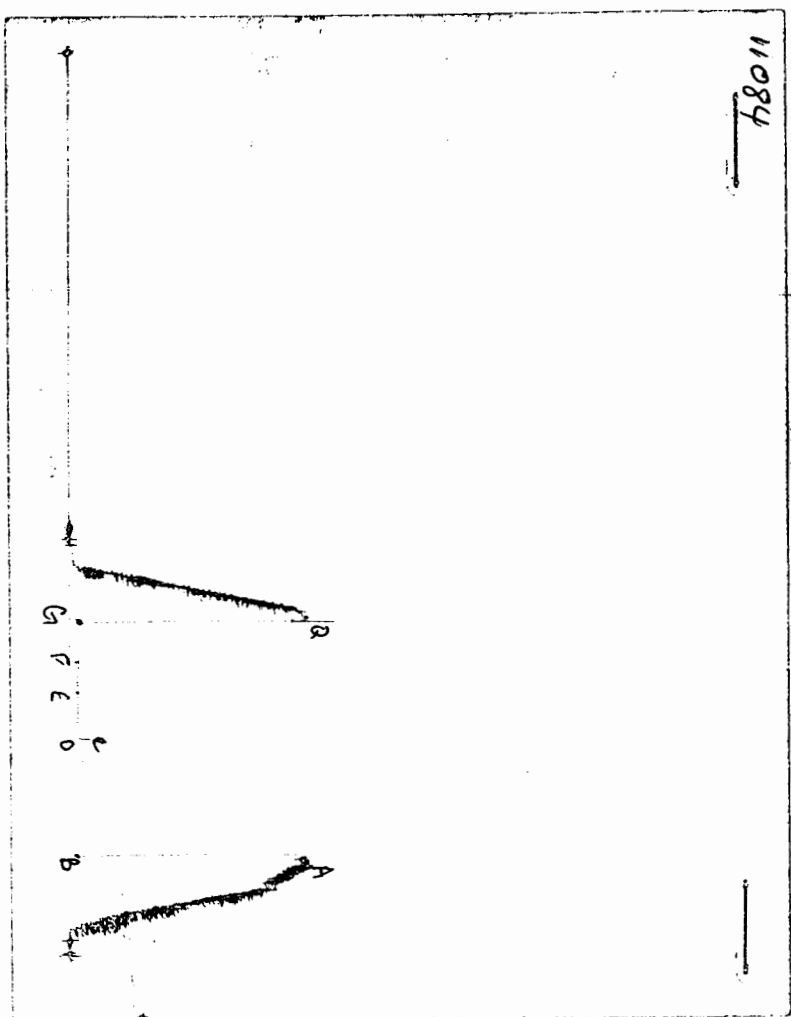
MUD DATA-----

Mud Type	Chemical
Weight	8.90 lb/c
Vis.	45.00 S/L
W.L.	10.40 in3
F.C.	0.00 in
Mud Drop	

Amt. of fill	0.00 ft
Btm. H. Temp.	132.00 F
Hole Condition	
% Porosity	3.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	

Tester Darren Amerine
Co. Rep. Todd Morgenstern
Contr. Duke Drilling
Rig # 2
Unit #
Pump T.

CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 8897

Well Name & No. <u>#4 Browning "C"</u>	Test No. <u>#1</u>	Date <u>11/21/96</u>
Company <u>Stepco Well Service</u>	Zone Tested <u>Douglas Sp.</u>	
Address <u>P.O. Box 255 Ellinwood, Ks 67526-0255</u>	Elevation <u>1750</u> KB <u>1742</u> GL	
Co. Rep / Geo. <u>Todd Morgenstern</u>	Mont. <u>Duke #2</u>	Est. Ft. of Pay <u>10</u> Por. <u>3</u> %
Location: Sec. <u>13</u> Twp. <u>19S</u> Rge. <u>10W</u>	Co. <u>Rice</u> State <u>Ks</u>	
No. of Copies <u>5</u> Distribution Sheet (Y, N) <u>—</u>	Turnkey (Y, N) <u>#4</u>	Evaluation (Y, N) <u>—</u>

Interval Tested 2822 - 2860' Initial Str Wt./Lbs. 44,000 Unseated Str Wt./Lbs. 44,000
Anchor Length 38' Wt. Set Lbs. 24,000 Wt. Pulled Loose/Lbs. 60,000
Top Packer Depth 2817' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓
Bottom Packer Depth 2822' Wt. Pipe I.D. — 2.7 Ft. Run None
Total Depth 2860' Drill Collar — 2.25 Ft. Run None
Mud Wt. 8.9 LCM — Vis. 4.5 WL 10.4 Drill Pipe Size 4 1/2 X H Ft. Run 2818'
Blow Description IF: Weak blow. Built to approx. 4" in bucket.
ISI: Weak blow back. Did in approx. 1 min.
FF: Strong blow. Built to the bottom of the bucket
in 10 mins. / EST: No blow back did in less than 1 min.

Recovery — Total Feet	Ft. in DC	Ft. in WP	Ft. in DP
Rec. <u>45'</u> Feet Of <u>GCOM</u>	<u>6</u> %gas <u>14</u> %oil <u>✓</u> %water <u>80</u> %mud		
Rec. <u>75'</u> Feet Of <u>GTP.</u>	%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 132° °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 9,000 ppm System

(A) Initial Hydrostatic Mud <u>1325</u> PSI	Recorder No. <u>13849'</u>	T-Started <u>11:30 AM</u>
(B) First Initial Flow Pressure <u>44</u> PSI	@ (depth) <u>2826'</u>	T-Open <u>12:15 AM</u>
(C) First Final Flow Pressure <u>33</u> PSI	Recorder No. <u>11084'</u>	T-Pulled <u>3:15 AM</u>
(D) Initial Shut-in Pressure <u>121</u> PSI	@ (depth) <u>2857'</u>	T-Out <u>4:30 AM</u>
(E) Second Initial Flow Pressure <u>44</u> PSI	Recorder No. _____	
(F) Second Final Flow Pressure <u>44</u> PSI	@ (depth) _____	
(G) Final Shut-in Pressure <u>77</u> PSI	Initial Opening <u>45</u>	Test <u>✓</u> <u>600</u>
(H) Final Hydrostatic Mud <u>1315</u> PSI	Initial Shut-in <u>45</u>	Jars _____

Final Flow 45 Safety Joint _____
Final Shut-in 45 Straddle _____

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 Todd E. Morgenstern

Our Representative Lauren Lineine

Circ. Sub _____
Sampler _____
Extra Packer _____
Elect. Rec. _____
Other _____
TOTAL PRICE \$ 600.00

(5)

TRILOBITE TESTING L.L.C.

OPERATOR : Stepco Well Service

DATE 12/21/96

WELL NAME: Browning C #4

KB 1750.00 ft

TICKET NO: 8898

DST #2

LOCATION : 13-19S-10W Rice KS

GR 1742.00 ft

FORMATION: Lansing "G"

INTERVAL : 3020.00 To 3035.00 ft

TD 3035.00 ft

TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 45 Rec.	11084	11084	13849			PF Fr. 1616 to 1700 hr
SI 45 Range(Psi)	4300.0	4300.0	4375.0	0.0	0.0	IS Fr. 1700 to 1745 hr
SF 45 Clock(hrs)	12hr	12hr	12hr			SF Fr. 1745 to 1830 hr
FS 45 Depth(ft)	3032.0	3032.0	3025.0	0.0	0.0	FS Fr. 1830 to 1915 hr

	Field	1	2	3	4	
A. Init Hydro	1444.0	1462.0	0.0	0.0	0.0	T STARTED 1500 hr
B. First Flow	33.0	31.0	0.0	0.0	0.0	T ON BOTM 1610 hr
B1. Final Flow	33.0	31.0	0.0	0.0	0.0	T OPEN 1616 hr
C. In Shut-in	482.0	474.0	0.0	0.0	0.0	T PULLED 1916 hr
D. Init Flow	44.0	52.0	0.0	0.0	0.0	T OUT 2100 hr
E. Final Flow	44.0	57.0	0.0	0.0	0.0	
F. Fl Shut-in	504.0	504.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1422.0	1418.0	0.0	0.0	0.0	Tool Wt. 0.00 lbs
Inside/Outside	o	o	i			Wt Set On Packer 24000.00 lbs
						Wt Pulled Loose 60000.00 lbs
						Initial Str Wt 44000.00 lbs
						Unseated Str Wt 44000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 0.00 ft
						D.P. Length 3032.00 ft
						H.W. I.D 2.70 in

RECOVERY

Tot Fluid 720.00 ft of 0.00 ft in DC and 720.00 ft in DP
 675.00 ft of Gas In Pipe
 45.00 ft of Oil Cut Gassy Mud with Water 20% Gas 10% Oil
 0.00 ft of 10% Water 60% Mud
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:

Strong Blow Built to bottom of bucket
 in 10 mins

Initial ShutIn:

Weak Blow Built to 2 inches through-
 out Shut In

Final Flow:

Strong Blow Botton of the Bucket in
 30 sec.

Final ShutIn:

Fair Blow Back Built to 4in Bucket

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	8.80 lb/c
Vis.	47.00 S/L
W.L.	12.00 in3
F.C.	0.00 in
Mud Drop	

Amt. of fill 0.00 ft

Btm. H. Temp. 144.00 F

Hole Condition

% Porosity 12.00

Packer Size 6.75 in

No. of Packers 2

Cushion Amt. 0.00

Cushion Type

Reversed Out

Tool Chased

Tester Darren Amerine

Co. Rep. Todd Morgenstern

Contr. Duke Drilling

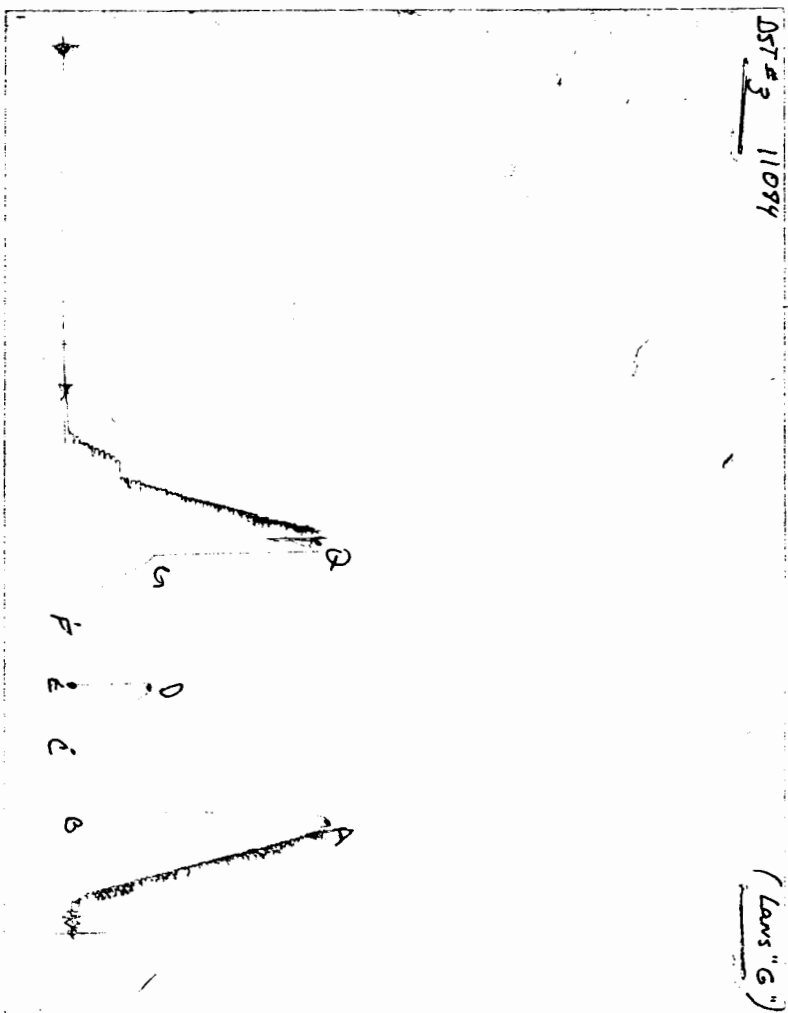
Rig # 2

Unit #

Pump T.

Test Successful: Y

CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 8898

Well Name & No. <u>#4 Browning "C"</u>	Test No. <u>#</u>	Date <u>12/22/96</u>
Company <u>Stepco Well Service</u>	Zone Tested <u>(Lans "G")</u>	
Address <u>P.O. Box 255 C'llinwood, KS 67526-0265</u>	Elevation <u>1250</u>	KB <u>1742</u> GL
Co. Rep / Geo. <u>Todd Morganstern</u>	Cont. <u>Duke #2</u>	Est. Ft. of Pay <u>10</u> Por. <u>12</u> %
Location: Sec. <u>13</u> Twp. <u>19s</u> Rge. <u>10w</u>	Co. <u>Rice</u>	State <u>KS</u>
No. of Copies <u>5</u>	Distribution Sheet (Y, N) <u>—</u>	Turnkey (Y, N) <u>Y</u> Evaluation (Y, N) <u>—</u>

Interval Tested 3020 - 3035' Initial Str Wt./Lbs. 44000 Unseated Str Wt./Lbs. 44000
Anchor Length 15' Wt. Set Lbs. 24000 Wt. Pulled Loose/Lbs. 60000
Top Packer Depth 3015' Hole Size — 7 7/8" ☒ Rubber Size — 6 3/4" ☒
Bottom Packer Depth 3020' Wt. Pipe I.D. — 2.7 Ft. Run —
Total Depth 3035' Drill Collar — 2.25 Ft. Run —
Mud Wt. 8.8 LCM # — Vis. 47 WL 2.0 Drill Pipe Size 4 1/2 XH Ft. Run 3032'
Blow Description IF: Strong blow. Built to bottom of bucket in 10 mins.
ISI: Weak blow. Built in 2 min throughout SI.
FF: Strong blow. Bottom of the bucket in 30 sec.
FSI: Fair blow back. built to 4" in bucket

Recovery — Total Feet	Ft. in DC	Ft. in WP	Ft. in DP
Rec. <u>675'</u> Feet Of <u>GIP</u>	%gas	%oil	%water %mud
Rec. <u>45'</u> Feet Of <u>OC6M/Water</u>	20 %gas 10 %oil 10 %water 60 %mud		
Rec. <u>—</u> Feet Of <u>—</u>	%gas %oil %water %mud		
Rec. <u>—</u> Feet Of <u>—</u>	%gas %oil %water %mud		
Rec. <u>—</u> Feet Of <u>—</u>	%gas %oil %water %mud		

BHT 144° °F Gravity — °API D@ — °F Corrected Gravity — °API
RW — @ — °F Chlorides — ppm Recovery Chlorides 9500 ppm System

(A) Initial Hydrostatic Mud <u>1444</u> PSI	Recorder No. <u>13849</u>	T-Started <u>3:00 P.M.</u>
(B) First Initial Flow Pressure <u>33</u> PSI	@ (depth) <u>3025'</u>	T-Open <u>4:16 P.M.</u>
(C) First Final Flow Pressure <u>33</u> PSI	Recorder No. <u>11084</u>	T-Pulled <u>7:16 P.M.</u>
(D) Initial Shut-in Pressure <u>482</u> PSI	@ (depth) <u>3032</u>	T-Out <u>9:00 P.M.</u>
(E) Second Initial Flow Pressure <u>44</u> PSI	Recorder No. <u>—</u>	
(F) Second Final Flow Pressure <u>44</u> PSI	@ (depth) <u>—</u>	
(G) Final Shut-in Pressure <u>504</u> PSI	Initial Opening <u>45</u>	Test ☒
(H) Final Hydrostatic Mud <u>1422</u> PSI	Initial Shut-in <u>45</u>	Jars <u>—</u>

Final Flow 45 Safety Joint —
Final Shut-in 45 Straddle —

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Approved By Todd E. Morganstern

Our Representative Lance L. Dineen

Circ. Sub —
Sampler —
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Other —
TOTAL PRICE \$ 600.00