

# TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

Well Name HALE #1 Test No. 1 Date 5/23/92  
Company AINSWORTH OPERATING Zone LKC-"A"  
Address P.O. BOX 1269 COLORADO SPRINGS CO 80901 Elevation 2377  
Co. Rep./Geo. KENT ROBERTS Cont. ABERCROMBIE RIG #4 Est. Ft. of Pay \_\_\_\_\_  
Location: Sec. 12 Twp. 7S Rge. 23W Co. GRAHAM State KS

Interval Tested 3628-3642 Drill Pipe Size 4.5 XH  
Anchor Length 14 Wt. Pipe I.D. - 2.7 Ft. Run 600  
Top Packer Depth 3623 Drill Collar - 2.25 Ft. Run \_\_\_\_\_  
Bottom Packer Depth 3628 Mud Wt. 9.4 lb/Gal.  
Total Depth 3642 Viscosity 48 Filtrate 10.8

Tool Open @ 11:15 AM Initial Blow WEAK 1/4" BLOW-DIED IN 7 MINUTES-FLUSHED TOOL  
NO BLOW AFTER SURGE  
Final Blow NO BLOW

Recovery - Total Feet 5 Flush Tool? YES

Rec. 5 Feet of MUD W/ SHOW OF OIL IN TOOL  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

BHT 98 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides N/A ppm System

(A) Initial Hydrostatic Mud 1925.6 PSI AK1 Recorder No. 10248 Range 4400

(B) First Initial Flow Pressure 35.4 PSI @ (depth) 3641 w / Clock No. 17640

(C) First Final Flow Pressure 44.7 PSI AK1 Recorder No. 22150 Range 3925

(D) Initial Shut-in Pressure 588.9 PSI @ (depth) 3630 w / Clock No. 19960

(E) Second Initial Flow Pressure 44.7 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

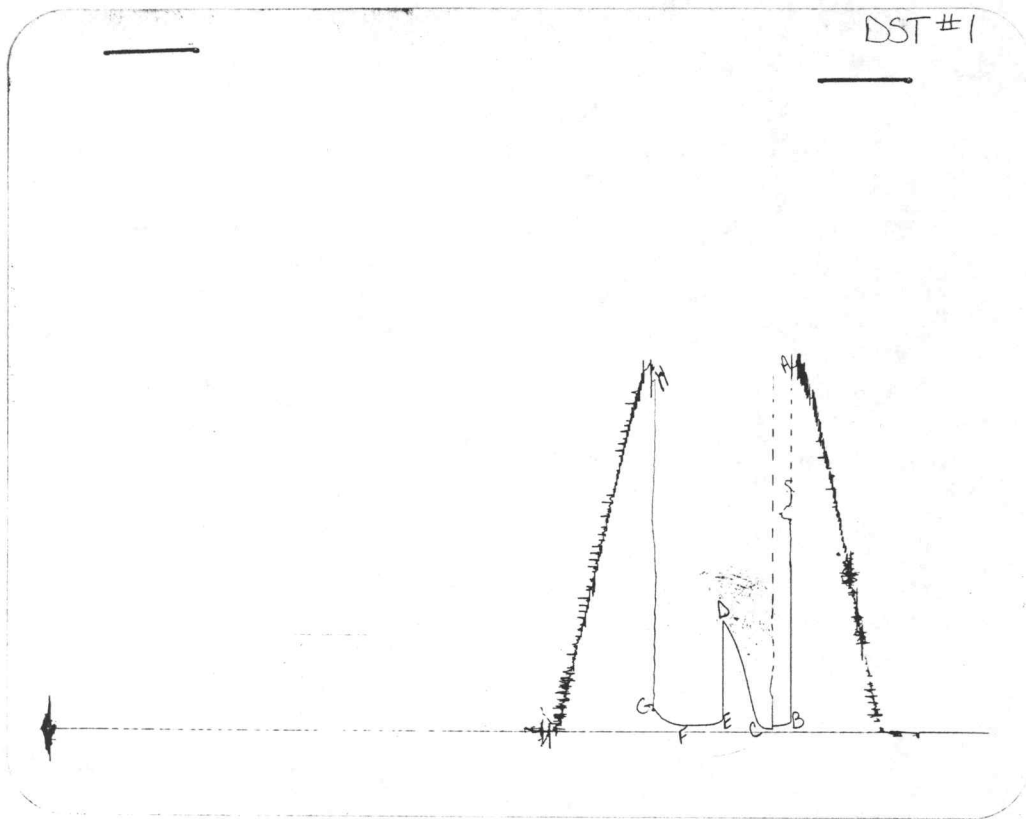
(F) Second Final Flow Pressure 43.6 PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_

(G) Final Shut-in Pressure 126.9 PSI Initial Opening 15 Final Flow 15

(H) Final Hydrostatic Mud 1860.6 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1920	1925.6
(B) FIRST INITIAL FLOW PRESSURE	34	35.4
(C) FIRST FINAL FLOW PRESSURE	46	44.7
(D) INITIAL CLOSED-IN PRESSURE	584	588.9
(E) SECOND INITIAL FLOW PRESSURE	46	44.7
(F) SECOND FINAL FLOW PRESSURE	46	43.6
(G) FINAL CLOSED-IN PRESSURE	125	126.9
(H) FINAL HYDROSTATIC MUD	1854	1860.6

# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Test Ticket

№ 4909

Well Name & No. <u>Hale #1</u>	Test No. <u>1</u>	Date <u>5/23/92</u>
Company <u>Misworth Operating</u>	Zone Tested <u>LKC 'A'</u>	
Address <u>P O Box 1269 Colorado Springs Co 80901</u>	Elevation <u>2377</u>	
Co. Rep./Geo. <u>Kent Roberts</u>	cont. <u>Abercrombie #4</u>	Est. Ft. of Pay _____
Location: Sec. <u>12</u>	Twp. <u>7S</u>	Rge. <u>23W</u> Co. <u>Graham</u> State <u>Ks</u>
No. of Copies <u>3</u>	Distribution Sheet _____	Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested <u>3628-3642</u>	Drill Pipe Size <u>4 1/2 XH</u>
Anchor Length <u>14</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>3623</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 5/4" _____
Bottom Packer Depth <u>3628</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>600</u>
Total Depth <u>3642</u>	Drill Collar — 2.25 Ft. Run _____
Mud Wt. <u>9.4</u> lb/gal.	Viscosity <u>48</u> Filtrate <u>10.8</u>
Tool Open @ <u>11:15 AM</u>	Initial Blow <u>Weak 1/4" blow - opened in 2 minutes - flushed</u>
<u>tool - no blow after surge</u>	
Final Blow <u>no blow</u>	

Recovery — Total Feet <u>5</u>	Feet of Gas in Pipe _____	Flush Tool? _____
Rec. <u>5</u> Feet Of <u>Mud w/ show of oil inter</u>	% gas _____	% oil _____
Rec. _____ Feet Of _____	% gas _____	% oil _____
Rec. _____ Feet Of _____	% gas _____	% oil _____
Rec. _____ Feet Of _____	% gas _____	% oil _____
Rec. _____ Feet Of _____	% gas _____	% oil _____

BHT 98 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides \_\_\_\_\_ ppm System

(A) Initial Hydrostatic Mud <u>1920</u>	PSI	AK1 Recorder No. <u>10248</u>	Range <u>4400</u>
(B) First Initial Flow Pressure <u>34</u>	PSI	@ (depth) <u>3641</u>	w/Clock No. <u>17640</u>
(C) First Final Flow Pressure <u>46</u>	PSI	AK1 Recorder No. <u>22150</u>	Range <u>3925</u>
(D) Initial Shut-In Pressure <u>584</u>	PSI	@ (depth) <u>3630</u>	w/Clock No. <u>19960</u>
(E) Second Initial Flow Pressure <u>46</u>	PSI	AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure <u>46</u>	PSI	@ (depth) _____	w/Clock No. _____
(G) Final Shut-In Pressure <u>125</u>	PSI	Initial Opening <u>15</u>	Test _____
(H) Final Hydrostatic Mud <u>1854</u>	PSI	Initial Shut-In <u>30</u>	Jars _____

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.

Final Flow <u>15</u>	Safety Joint _____
Final Shut-In <u>30</u>	Straddle _____
	Circ. Sub _____
	Sampler _____
	Extra Packer _____
	Other _____
	TOTAL PRICE \$ _____

Approved By Kent Roberts

Our Representative Paul Simpson

# TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

Well Name HALE #1 Test No. 2 Date 5/23/92  
Company AINSWORTH OPERATING Zone LKC-"B"  
Address P.O. BOX 1269 COLORADO SPRINGS CO 80901 Elevation 2377  
Co. Rep./Geo. KENT ROBERTS Cont. ABERCROMBIE RIG #4 Est. Ft. of Pay \_\_\_\_\_  
Location: Sec. 12 Twp. 7S Rge. 23W Co. GRAHAM State KS

Interval Tested 3656-3670  
Anchor Length 14  
Top Packer Depth 3651  
Bottom Packer Depth 3656  
Total Depth 3670

Drill Pipe Size 4.5 XH  
Wt. Pipe I.D. - 2.7 Ft. Run 578  
Drill Collar - 2.25 Ft. Run \_\_\_\_\_  
Mud Wt. 9.4 lb/Gal.  
Viscosity 48 Filtrate 10.8

Tool Open @ 9:23 PM Initial Blow WEAK BLOW-1" - DECREASED & DIED IN 24 MINUTES

Final Blow NO BLOW-FLUSHED TOOL-GOT SURGE/NO BLOW

Recovery - Total Feet 70 Flush Tool? 2nd

Rec. 70 Feet of THIN WATERY MUD  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

BHT 99 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
RW 0.54 @ 75 °F Chlorides 11000 ppm Recovery Chlorides 1500 ppm System

(A) Initial Hydrostatic Mud 1936.4 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 55.8 PSI @ (depth) 3658 w / Clock No. 17640

(C) First Final Flow Pressure 72.3 PSI AK1 Recorder No. 10248 Range 4400

(D) Initial Shut-in Pressure 1046.9 PSI @ (depth) 3669 w / Clock No. 27567

(E) Second Initial Flow Pressure 84.2 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

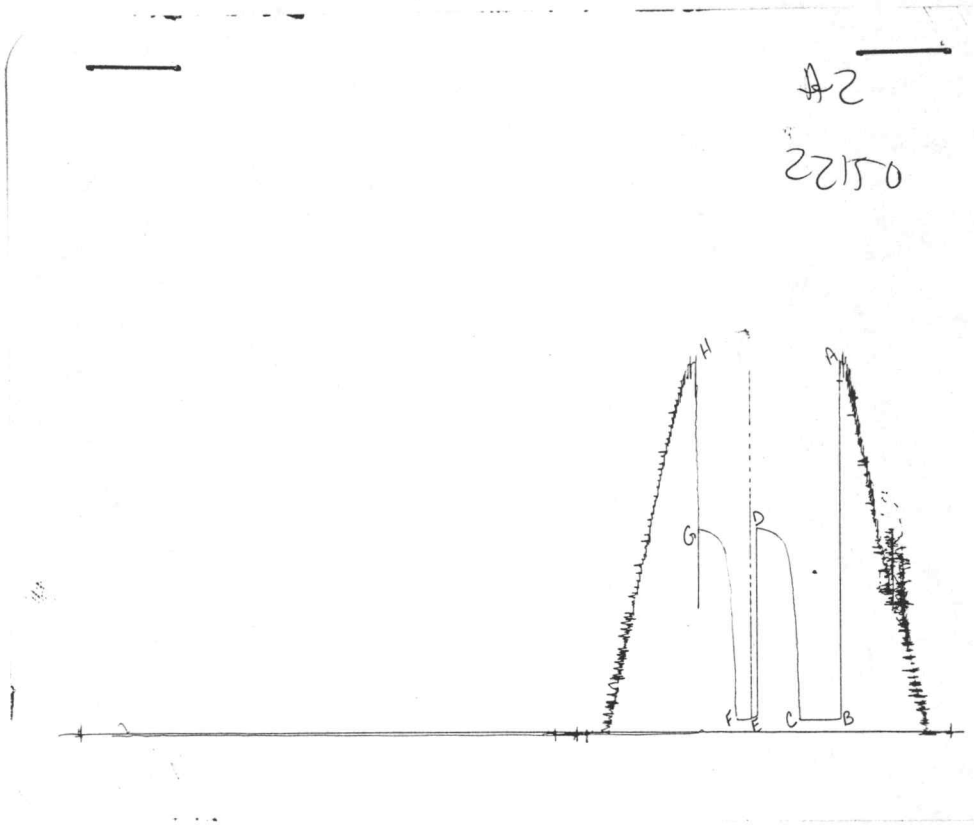
(F) Second Final Flow Pressure 83.1 PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_

(G) Final Shut-in Pressure 1045.8 PSI Initial Opening 30 Final Flow 15

(H) Final Hydrostatic Mud 1905.6 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1931	1936.4
(B) FIRST INITIAL FLOW PRESSURE	57	55.8
(C) FIRST FINAL FLOW PRESSURE	68	72.3
(D) INITIAL CLOSED-IN PRESSURE	1045	1046.9
(E) SECOND INITIAL FLOW PRESSURE	80	84.2
(F) SECOND FINAL FLOW PRESSURE	80	83.1
(G) FINAL CLOSED-IN PRESSURE	1045	1045.8
(H) FINAL HYDROSTATIC MUD	1898	1905.6

# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Test Ticket

No 4910

Well Name & No. <u>Hale #1</u>	Test No. <u>2</u>	Date <u>5/23/92</u>
Company <u>Ameyworth Operating</u>	Zone Tested <u>LKC 'B'</u>	
Address <u>P O Box 1269 Colorado Spring Co 80901</u>	Elevation <u>2377</u>	
Co. Rep./Geo. <u>Rent Roberts</u>	Cont. <u>Abercrombie #4</u>	Est. Ft. of Pay _____
Location: Sec. <u>12</u>	Twp. <u>7s</u>	Rge. <u>23w</u> Co. <u>Wray</u> State <u>Ks</u>
No. of Copies _____	Distribution Sheet _____	Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested <u>3656-3670</u>	Drill Pipe Size <u>4 1/2 XH</u>
Anchor Length <u>14</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>3651</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>3656</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>578</u>
Total Depth <u>3670</u>	Drill Collar — 2.25 Ft. Run _____
Mud Wt. _____ lb/gal.	Viscosity _____ Filtrate _____
Tool Open @ <u>9:23 PM</u>	Initial Blow <u>weak blow - 1" - decreasing but died in 24 minutes</u>
Final Blow <u>no blow - flush tool - gas surge - no blow</u>	

Recovery — Total Feet <u>70</u>	Feet of Gas in Pipe _____	Flush Tool? <u>2nd</u>
Rec. <u>70</u> Feet Of <u>thin water mud</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 _____	
Rec. _____ Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____	

BHT <u>99</u> °F Gravity _____	°API @ _____	°F Corrected Gravity _____	°API _____
RW <u>.54</u> @ <u>75</u> °F	Chlorides <u>11,000</u> ppm	Recovery Chlorides <u>1500</u> ppm	System _____
(A) Initial Hydrostatic Mud <u>1931</u>	PSI	AK1 Recorder No. <u>22150</u>	Range <u>3925</u>
(B) First Initial Flow Pressure <u>57</u>	PSI	@ (depth) <u>3658</u>	w/Clock No. <u>17640</u>
(C) First Final Flow Pressure <u>68</u>	PSI	AK1 Recorder No. <u>10248</u>	Range <u>4400</u>
(D) Initial Shut-In Pressure <u>1045</u>	PSI	@ (depth) <u>3669</u>	w/Clock No. <u>27567</u>
(E) Second Initial Flow Pressure <u>80</u>	PSI	AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure <u>50</u>	PSI	@ (depth) _____	w/Clock No. _____
(G) Final Shut-In Pressure <u>1045</u>	PSI	Initial Opening <u>30</u>	Test _____
(H) Final Hydrostatic Mud <u>1898</u>	PSI	Initial Shut-In <u>30</u>	Jars _____

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 <u>Rent Roberts</u>	Final Flow <u>15</u>	Safety Joint _____
Our Representative <u>Paul Simpson</u>	Final Shut-In <u>30</u>	Straddle _____
		Circ. Sub _____
		Sampler _____
		Extra Packer _____
		Other _____
		TOTAL PRICE \$ _____