

**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Castle Res, Inc**  
PO Box 87  
Schoenchen, Ks 67667

ATTN: Jerry Green

**6-17-19-Rush-Ks**

**Baldwin-Littler #1**

Start Date: 2002.11.27 @ 15:32:55  
End Date: 2002.11.27 @ 21:59:55  
Job Ticket #: 16718                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620





**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Castle Res, Inc  
PO Box 87  
Schoenchen, Ks 67667  
  
ATTN: Jerry Green

**Baldwin-Littler #1**  
**6-17-19-Rush-Ks**  
Job Ticket: 16718      **DST#: 1**  
Test Start: 2002.11.27 @ 15:32:55

**Tool Information**

Drill Pipe:	Length: 3138.00 ft	Diameter: 3.80 inches	Volume: 44.02 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 313.00 ft	Diameter: 3.80 inches	Volume: 4.39 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 48.41 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3442.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	43.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description      Length (ft)    Serial No.    Position    Depth (ft)    Accum. Lengths**

S.I. Tool	5.00			3427.00	
HMV	5.00			3432.00	
Packer	5.00			3437.00	20.00      Bottom Of Top Packer
Packer	5.00			3442.00	
Stubb	1.00			3443.00	
Recorder	0.00	2357	Inside	3443.00	
Perforations	19.00			3462.00	
Recorder	0.00	13254	Outside	3462.00	
Bullnose	3.00			3465.00	23.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>43.00</b>				



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Castle Res, Inc  
PO Box 87  
Schoenchen, Ks 67667  
  
ATTN: Jerry Green

**Baldwin-Littler #1**  
**6-17-19-Rush-Ks**  
Job Ticket: 16718      **DST#: 1**  
Test Start: 2002.11.27 @ 15:32:55

**Mud and Cushion Information**

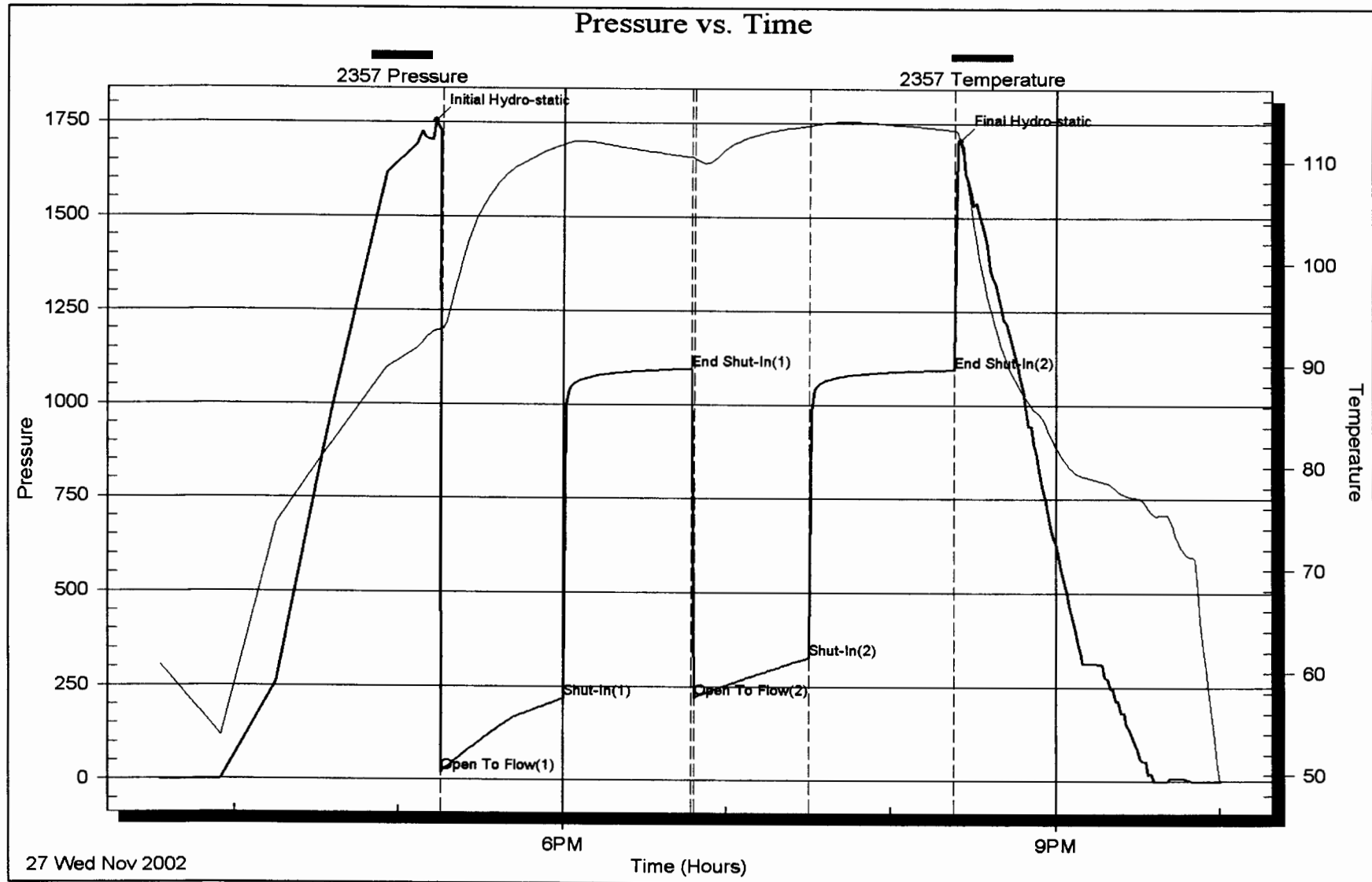
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	48000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 11.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 12000.00 ppm			
Filter Cake: inches			

**Recovery Information**

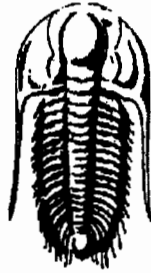
Recovery Table

Length ft	Description	Volume bbl
744.00	Mdy Wtr Rw .19 @ 80 = 48000ppm	10.436

Total Length: 744.00 ft      Total Volume: 10.436 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



27 Wed Nov 2002



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Castle Res, Inc**  
PO Box 87  
Schoenchen, Ks 67667

ATTN: Jerry Green

**6-17-19-Rush-Ks**

**Baldwin-Littler #1**

Start Date: 2002.11.29 @ 02:16:23  
End Date: 2002.11.29 @ 12:20:23  
Job Ticket #: 16719                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Castle Res, Inc  
PO Box 87  
Schoenchen, Ks 67667  
ATTN: Jerry Green

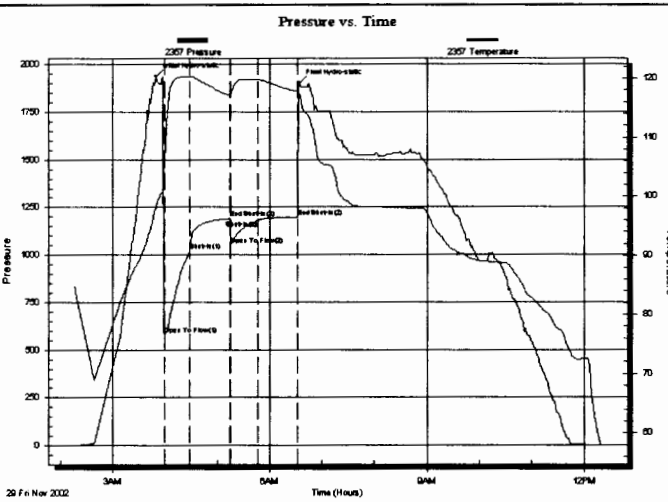
**Baldwin-Littler #1**  
**6-17-19-Rush-Ks**  
Job Ticket: 16719      **DST#: 2**  
Test Start: 2002.11.29 @ 02:16:23

### GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: **No** Whipstock:                      ft (KB)      Test Type: **Conventional Bottom Hole**  
Time Tool Opened: 03:59:53      Tester: **Dan Bangle**  
Time Test Ended: 12:20:23      Unit No: **21**  
**Interval: 3784.00 ft (KB) To 3805.00 ft (KB) (TVD)**      Reference Elevations:      2072.00 ft (KB)  
Total Depth: 3805.00 ft (KB) (TVD)      2067.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: **Good**      KB to GR/CF: 5.00 ft

**Serial #: 2357**      **Inside**  
Press@RunDepth: 1182.35 psig @ 3785.00 ft (KB)      Capacity: 7000.00 psig  
Start Date: 2002.11.29      End Date: 2002.11.29      Last Calib.: 2002.11.29  
Start Time: 02:16:28      End Time: 12:20:23      Time On Btrm: 2002.11.29 @ 03:49:53  
Time Off Btrm: 2002.11.29 @ 06:34:23

**TEST COMMENT:** F-Strong BOB in 20 sec  
IS-Weak building to 3"  
FF-Strong BOB in 20 sec  
FS-Weak building to 1"



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1936.45	98.10	Initial Hydro-static
10	580.51	106.51	Open To Flow (1)
39	1020.61	120.33	Shut-In(1)
84	1190.28	117.10	End Shut-In(1)
85	1053.07	117.07	Open To Flow (2)
116	1182.35	119.78	Shut-In(2)
163	1199.07	117.78	End Shut-In(2)
165	1901.00	117.42	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
3247.00	Clean Gssy Oil 20%g 80%o	45.55
434.00	GIP	6.09

### Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Castle Res, Inc  
PO Box 87  
Schoenchen, Ks 67667  
  
ATTN: Jerry Green

**Baldwin-Littler #1**  
**6-17-19-Rush-Ks**  
Job Ticket: 16719      **DST#: 2**  
Test Start: 2002.11.29 @ 02:16:23

**Tool Information**

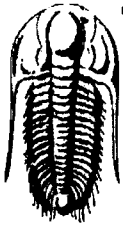
Drill Pipe:	Length: 3478.00 ft	Diameter: 3.80 inches	Volume: 48.79 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 313.00 ft	Diameter: 3.80 inches	Volume: 4.39 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 63000.00 lb
			<u>Total Volume: 53.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3784.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	41.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

**Length (ft)    Serial No.    Position    Depth (ft)    Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
S.I. Tool	5.00			3769.00	
HMV	5.00			3774.00	
Packer	5.00			3779.00	20.00      Bottom Of Top Packer
Packer	5.00			3784.00	
Stubb	1.00			3785.00	
Recorder	0.00	2357	Inside	3785.00	
Perforations	17.00			3802.00	
Recorder	0.00	13254	Outside	3802.00	
Bullnose	3.00			3805.00	21.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>41.00</b>				



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Castle Res, Inc  
PO Box 87  
Schoenchen, Ks 67667  
ATTN: Jerry Green

**Baldwin-Littler #1**  
**6-17-19-Rush-Ks**  
Job Ticket: 16719      **DST#: 2**  
Test Start: 2002.11.29 @ 02:16:23

**Mud and Cushion Information**

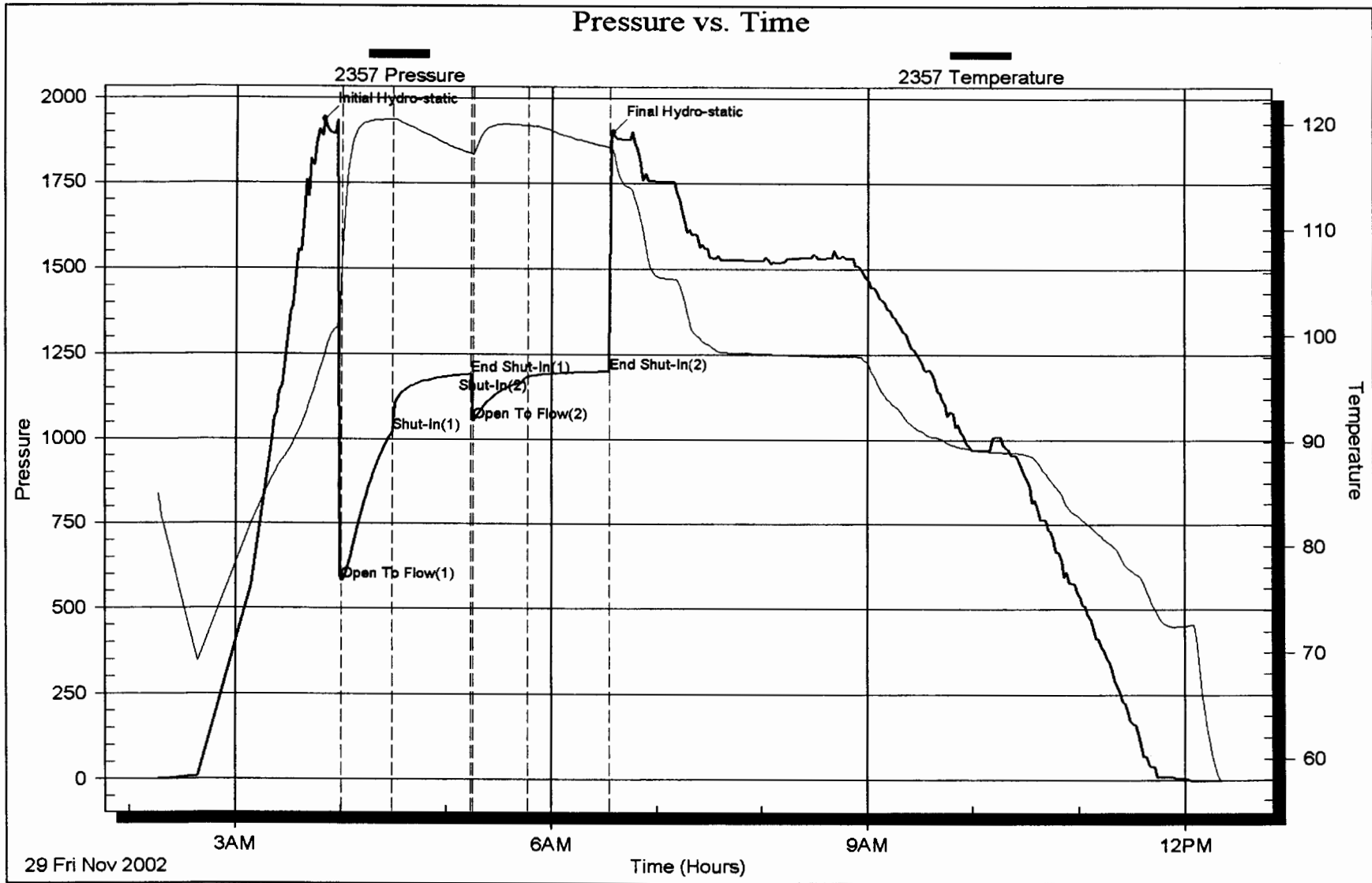
Mud Type: Gel Chem	Cushion Type:	Oil API: 40 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl	
Water Loss: 12.79 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 15000.00 ppm		
Filter Cake: inches		

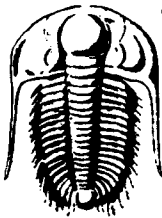
**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
3247.00	Clean Gssy Oil 20%g 80%o	45.547
434.00	GIP	6.088

Total Length: 3681.00 ft      Total Volume: 51.635 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: Reversed out





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INV #5274 #1969<sup>00</sup>

No 16718

## Test Ticket

Well Name & No. Baldwin-Little #1 Test No. 1 Date 11-27-02  
 Company Castle Res. Inc Zone Tested B-LKC  
 Address P.O. Box 87 Schoenchen, Ks. 67667 Elevation 2072 KB 2067 GL  
 Co. Rep / Geo. Jerry Green Cont. Anderson Drlg Est. Ft. of Pay      Por.      %  
 Location: Sec. 6 Twp. 17 Rge. 19 Co. Rush State Ks  
 No. of Copies      Distribution Sheet (Y, N)      Turnkey (Y, N)      Evaluation (Y, N)     

Interval Tested 3442 - 3465 Initial Str Wt./Lbs. 43,000 Unseated Str Wt./Lbs. 46,000  
 Anchor Length 23 Wt. Set Lbs. 22,000 Wt. Pulled Loose/Lbs. 29,000  
 Top Packer Depth 3437 Tool Weight 1500  
 Bottom Packer Depth 3442 Hole Size — 7 7/8" Rubber Size — 6 3/4"  
 Total Depth 3465 Wt. Pipe Run 313 Drill Collar Run       
 Mud Wt. 9.6 LCM      Vis. 50 WL 12 Drill Pipe Size 4.5 FH Ft. Run 3138  
 Blow Description I.F. Strong B.O.B in 14 min

F.F. Strong BOB in 23 min.

Recovery — Total Feet	GIP	Ft. in <del>DP</del>	Ft. in DP
<u>744</u>	<u>    </u>	<u>313</u>	<u>431</u>
Rec. <u>744</u> Feet Of <u>mdy WTR</u>		%gas	%oil
Rec. <u>    </u> Feet Of <u>    </u>		%water	%mud
Rec. <u>    </u> Feet Of <u>    </u>		%gas	%oil
Rec. <u>    </u> Feet Of <u>    </u>		%water	%mud
Rec. <u>    </u> Feet Of <u>    </u>		%gas	%oil
Rec. <u>    </u> Feet Of <u>    </u>		%water	%mud

BHT 113 °F Gravity      °API D@      °F Corrected Gravity      °API  
 RW .19 @ 80 °F Chlorides 48,000 ppm Recovery Chlorides 42,000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>1753</u>	<u>1753</u>	<u>    </u>	<u>2357</u>	<u>13:00</u>
(B) First Initial Flow Pressure	<u>20</u>	<u>20</u>	<u>    </u>	(depth) <u>3443</u>	T-Started <u>15:32</u>
(C) First Final Flow Pressure	<u>217</u>	<u>217</u>	<u>    </u>	Recorder No. <u>13254</u>	T-Open <u>17:14</u>
(D) Initial Shut-In Pressure	<u>1094</u>	<u>1094</u>	<u>    </u>	(depth) <u>3462</u>	T-Pulled <u>20:14</u>
(E) Second Initial Flow Pressure	<u>220</u>	<u>220</u>	<u>    </u>	Recorder No. <u>    </u>	T-Out <u>21:59</u>
(F) Second Final Flow Pressure	<u>327</u>	<u>327</u>	<u>    </u>	(depth) <u>    </u>	T-Off Location <u>22:10</u>
(G) Final Shut-in Pressure	<u>1093</u>	<u>1093</u>	<u>    </u>	Initial Opening <u>45</u>	Test <u>700</u>
(Q) Final Hydrostatic Mud	<u>1703</u>	<u>1703</u>	<u>    </u>	Initial Shut-in <u>45</u>	Jars <u>    </u>
				Final Flow <u>45</u>	Safety Joint <u>    </u>
				Final Shut-in <u>45</u>	Straddle <u>    </u>
					Circ. Sub <u>    </u>
					Sampler <u>    </u>
					Extra Packer <u>    </u>
					Elec. Rec. <u>X</u> <u>150</u>
					Mileage <u>27</u> <u>27</u>
					Other <u>877</u>
					TOTAL PRICE \$ <u>2 hrs</u> <u>60</u>
					<u>\$937</u>

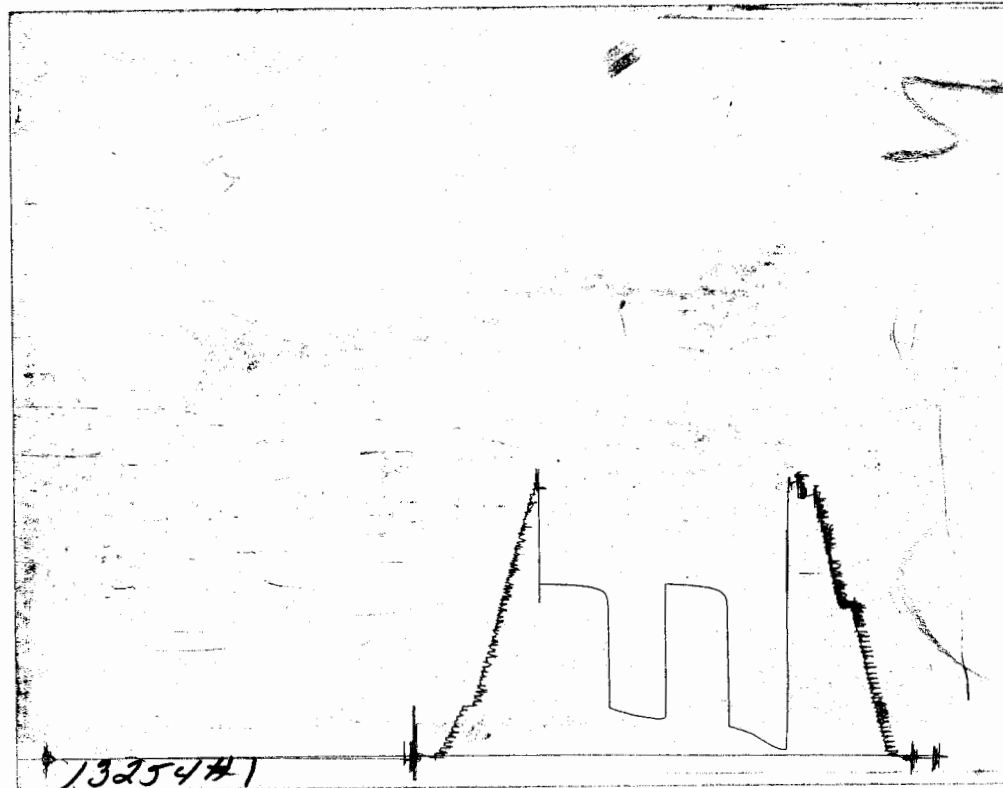
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE. OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST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

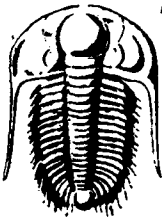
Approved By     

Our Representative Dan Rangle

# CHART PAGE

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





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16719

## Test Ticket

Well Name & No. Baldwin-burrler #1 Test No. 2 Date 11-29-02  
 Company Castle Res Inc Zone Tested Arbuckle  
 Address \_\_\_\_\_ Elevation 2072 KB 2067 GL  
 Co. Rep / Geo. Jerry Green Cont. Anderson Dalg. Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 6 Twp. 17 Rge. 19 Co. Rush State Ks  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 3784 — 3805 Initial Str Wt./Lbs. 13,000 Unseated Str Wt./Lbs. 60,000  
 Anchor Length 21 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 63,000  
 Top Packer Depth 3779 Tool Weight 1500  
 Bottom Packer Depth 3784 Hole Size — 7 7/8" Rubber Size — 6 3/4"  
 Total Depth 3805 Wt. Pipe Run 313 Drill Collar Run \_\_\_\_\_  
 Mud Wt. 9.4 LCM \_\_\_\_\_ Vis. 52 WL 12.8 Drill Pipe Size 4.5 FH Ft. Run 3478

Blow Description I.F. Strong - B.O.B. in 20 Sec  
ISI - Weak building to 3"  
F.F. Strong - B.O.B. in 20 Sec.  
FSI - Weak - building to 1"

Recovery — Total Feet	GIP	Ft. in <del>WT</del>	Ft. in DP
<u>3247</u>	<u>434</u>	<u>313</u>	<u>2924</u>
Rec. <u>3247</u> Feet Of <u>CGSYO</u>		<u>20</u> %gas <u>80</u> %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 117 °F Gravity \_\_\_\_\_ °API D@ \_\_\_\_\_ °F Corrected Gravity 40 °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 15,200 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>1936</u>		<u>2357</u>	<u>01:30</u>
(B) First Initial Flow Pressure		<u>580</u>		(depth) <u>3785</u>	T-Started <u>02:16</u>
(C) First Final Flow Pressure		<u>1020</u>		Recorder No. <u>13254</u>	T-Open <u>03:57</u>
(D) Initial Shut-In Pressure		<u>1190</u>		(depth) <u>3802</u>	T-Pulled <u>06:33</u>
(E) Second Initial Flow Pressure		<u>1053</u>		Recorder No. _____	T-Out <u>12:20</u>
(F) Second Final Flow Pressure		<u>1182</u>		(depth) _____	T-Off Location <u>12:20</u>
(G) Final Shut-in Pressure		<u>1199</u>		Initial Opening <u>30</u>	Test <u>700</u>
(Q) Final Hydrostatic Mud		<u>1901</u>		Initial Shut-in <u>45</u>	Jars _____
				Final Flow <u>30</u>	Safety Joint _____
				Final Shut-in <u>45</u>	Straddle _____
					Circ. Sub <u>X</u> <u>35</u>
					Sampler _____
					Extra Packer _____
					Elec. Rec. <u>X</u> <u>150</u>
					Mileage <u>27</u> <u>27</u>
					Other <u>912</u>
					TOTAL PRICE \$ <u>4hrs Stand 120</u>
					<u>#1032</u>

TRILOBITE TESTING INC. 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 Dan Rangle

# CHART PAGE

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

