



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Craig Oil Company**

15 S Main St  
Russell KS 67665

ATTN: Steve Murphy

### Brack AA #2

### 17-15s-12w Russell,KS

Start Date: 2012.04.28 @ 18:36:00

End Date: 2012.04.28 @ 22:59:00

Job Ticket #: 45714      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

**ORIGINAL**

Printed: 2012.05.04 @ 10:11:21

Craig Oil Company

17-15s-12w Russell,KS

Brack AA #2

DST # 1

Arbuckle

2012.04.28



# DRILL STEM TEST REPORT

Craig Oil Company  
 15 S Main St  
 Russell KS 67665  
 ATTN: Steve Murphy

17-15s-12w Russell, KS  
 Brack AA #2  
 Job Ticket: 45714  
 DST#: 1

Test Start: 2012.04.28 @ 18:36:00

## GENERAL INFORMATION:

Formation: Arbuckle  
 Deviated: No  
 Whipstock: 1850.00 ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jim Svaty  
 Unit No: 41

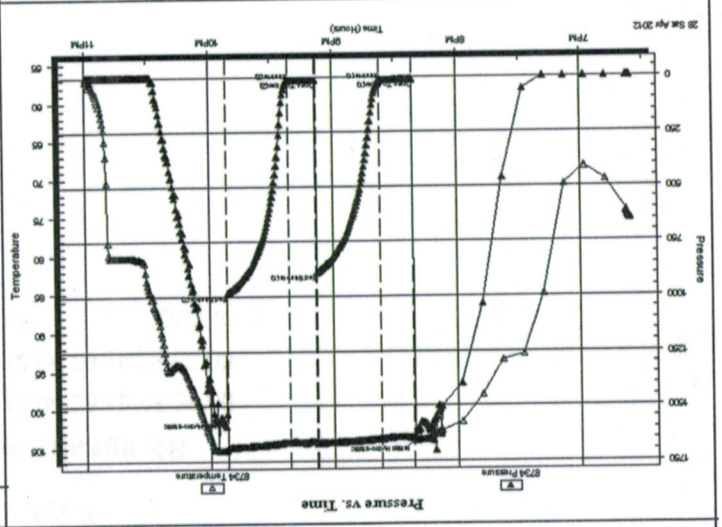
Interval: 3280.00 ft (KB) To 3300.00 ft (KB) (TVD)  
 Total Depth: 3300.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches  
 Condition: Fair

Time Tool Opened: 20:21:30  
 Time Test Ended: 22:59:00

Serial #: 8734  
 Outside  
 Press@RunDepth: 14.68 psig @ 3282.00 ft (KB)  
 Start Date: 2012.04.28  
 End Date: 2012.04.28  
 Start Time: 18:36:01  
 End Time: 22:59:00

Capacity: 8000.00 psig  
 Last Callb.: 2012.04.28  
 Time On Btm: 2012.04.28 @ 20:21:00  
 Time Off Btm: 2012.04.28 @ 21:52:00

TEST COMMENT: 15-FP- Surface Blow Died in 13 min  
 30-ISIP- No Blow  
 15-FFP- No Blow  
 30-FSIP- No Blow



## PRESSURE SUMMARY

Annotation	Time (Min.)	Pressure (psig)	Temp (deg F)
Initial Hydro-static	0	1647.82	104.19
Open To Flow (1)	1	12.63	103.84
Shut-in(1)	16	16.18	103.98
End Shut-in(1)	47	894.56	104.52
Open To Flow (2)	48	13.98	104.30
Shut-in(2)	61	14.68	104.40
End Shut-in(2)	91	985.97	105.04
Final Hydro-static	91	1535.52	105.25

### Gas Rates

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

### Recovery

Length (ft)	Description	Volume (bbl)
3.00	VSOCM 2% @ 98% m	0.04



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Craig Oil Company

**17-15s-12w Russell,KS**

15 S Main St  
Russell KS 67665

**Brack AA #2**

Job Ticket: 45714

**DST#: 1**

ATTN: Steve Murphy

Test Start: 2012.04.28 @ 18:36:00

## Tool Information

Drill Pipe:	Length: 3268.00 ft	Diameter: 3.80 inches	Volume: 45.84 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 36000.00 lb
			<u>Total Volume: 45.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3280.00 ft			Final 34000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3265.00	
Hydraulic tool	5.00			3270.00	
Packer	5.00			3275.00	20.00 Bottom Of Top Packer
Packer	5.00			3280.00	
Stubb	1.00			3281.00	
Perforations	1.00			3282.00	
Recorder	0.00	6669	Inside	3282.00	
Recorder	0.00	8734	Outside	3282.00	
Perforations	15.00			3297.00	
Bullnose	3.00			3300.00	20.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>40.00</b>				



**TRILOBITE TESTING, INC**

Craig Oil Company  
15 S Main St  
Russell KS 67665  
ATTN: Steve Murphy

17-15s-12w Russell, KS  
Brack AA #2  
Job Ticket: 45714  
DST#: 1  
Test Start: 2012.04.28 @ 18:36:00

**Mud and Cushion Information**

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 51.00 sec/qt  
Water Loss: 9.54 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 6000.00 ppm  
Filter Cake: inches

Cushion Type: Oil API  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type: psig  
Gas Cushion Pressure: psig

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
3.00	VSOCM 2% @ 98% m	0.042
Total Length:		3.00 ft
Total Volume:		0.042 bbl

Num Fluid Samples: 0  
 Laboratory Name:  
 Recovery Comments:  
 Num Gas Bombs: 0  
 Laboratory Location:  
 Serial #:

**DRILL STEM TEST REPORT FLUID SUMMARY**

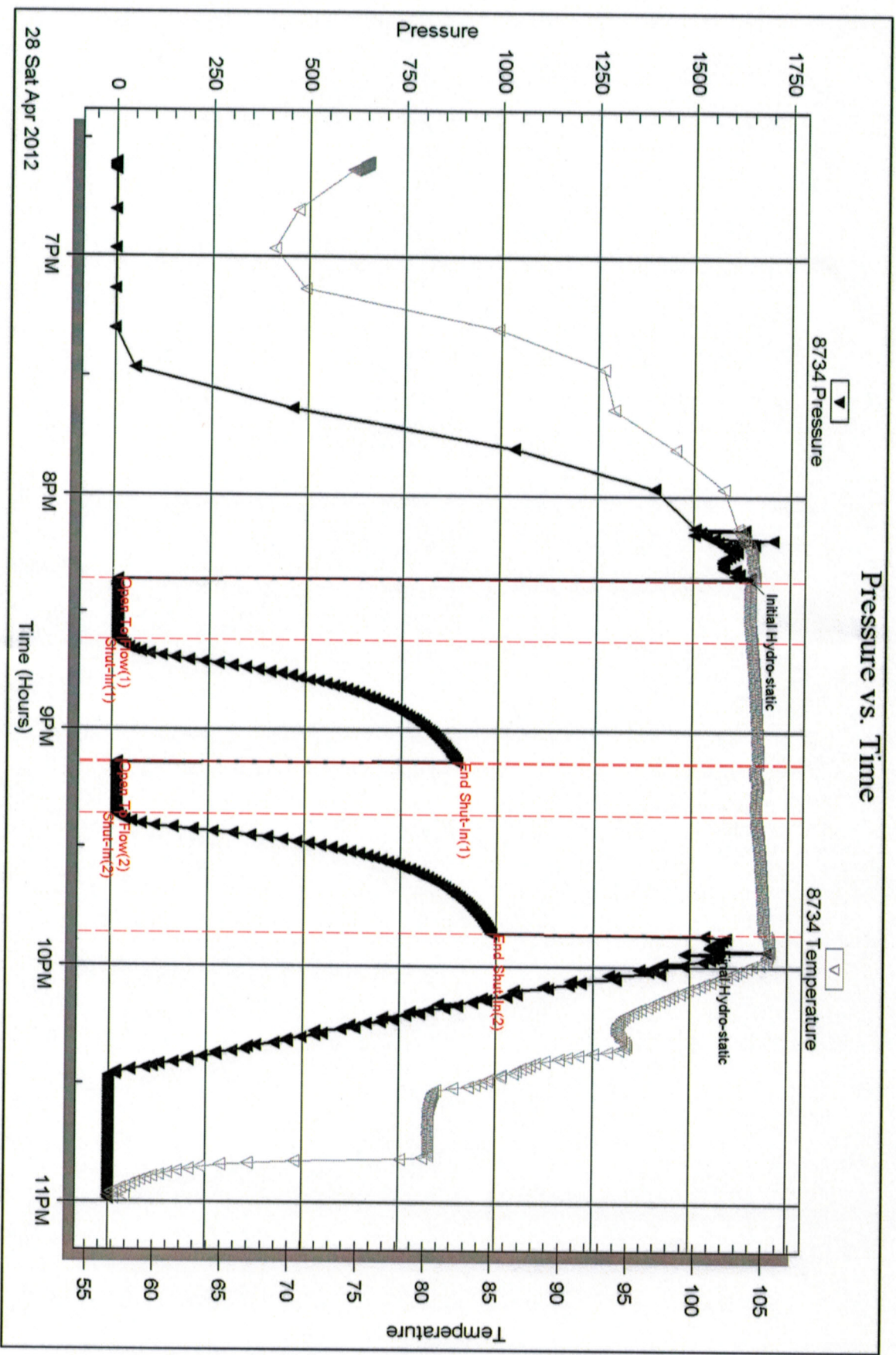
Serial #: 8734

Outside Craig Oil Company

Brack AA #2

DST Test Number: 1

### Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 45714

Printed: 2012.05.04 @ 10:11:22





**TRILOBITE  
TESTING, INC.**

### DRILL STEM TEST REPORT

Prepared For: **Craig Oil Company**

15 S Main St  
Russell KS 67665

ATTN: Steve Murphy

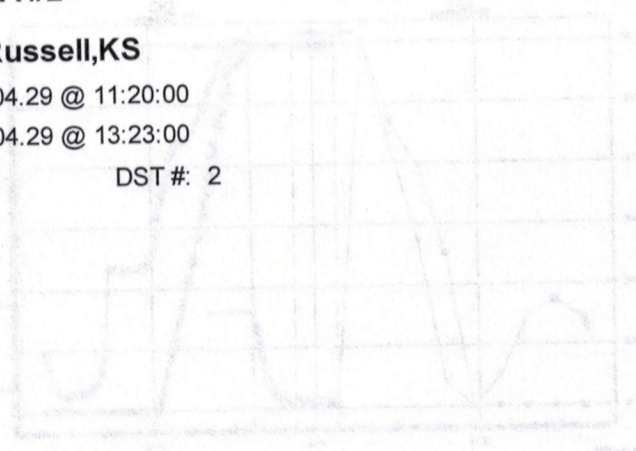
#### Brack AA #2

#### 17-15s-12w Russell,KS

Start Date: 2012.04.29 @ 11:20:00

End Date: 2012.04.29 @ 13:23:00

Job Ticket #: 45715                      DST #: 2



Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

# DRILL STEM TEST REPORT



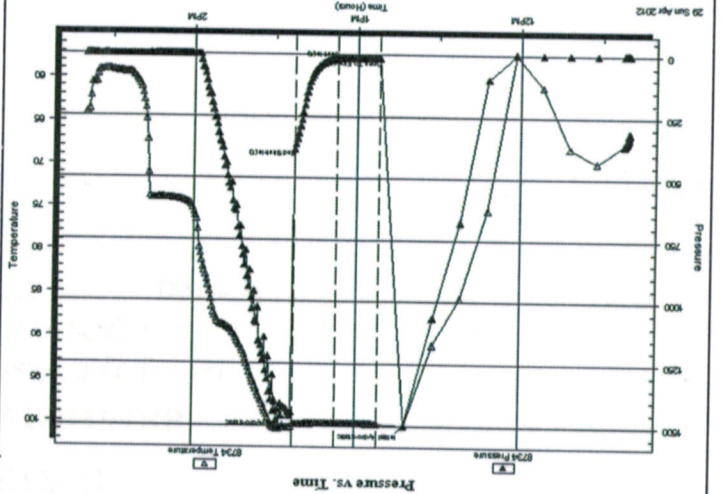
Craig Oil Company  
 15 S Main St  
 Russell KS 67665  
 ATTN: Steve Murphy

17-15s-12w Russell, KS  
 Brack AA #2  
 Job Ticket: 45715  
 DST#: 2  
 Test Start: 2012.04.29 @ 11:20:00

## GENERAL INFORMATION:

Formation: LKC " C "  
 Deviated: No Whipstock: 1850.00 ft (KB)  
 Time Tool Opened: 12:52:00  
 Time Test Ended: 13:23:30  
 Interval: 3040.00 ft (KB) To 3050.00 ft (KB) (TVD)  
 Total Depth: 3350.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inchesHole Condition: Fair  
 Serial #: 8734  
 Outside  
 Press@RunDepth: 15.07 psig @ 3041.00 ft (KB)  
 Start Date: 2012.04.29  
 End Date: 11:20:01  
 End Time: 14:39:30  
 Last Calib.: 2012.04.29  
 Capacity: 8000.00 psig  
 Time On Btm: 2012.04.29 @ 12:42:00  
 Time Off Btm: 2012.04.29 @ 13:23:30

TEST COMMENT: 17-IFP- Surface Blow Died in 12 min  
 16-ISIP- No Blow



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1497.80	100.43	Initial Hydro-static
10	14.53	100.24	Open To Flow (1)
26	15.07	100.14	Shut-In(1)
41	382.68	100.28	End Shut-In(1)
42	1445.35	100.61	Final Hydro-static

## PRESSURE SUMMARY

Length (ft)	Description	Volume (bb)
7.00	VSOCM 1% @ 99% m	0.10

## Recovery

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

## Gas Rates

Trilobite Testing, Inc

Ref. No: 45715

Printed: 2012.05.04 @ 09:22:26





**DRILL STEM TEST REPORT**

17-15s-12w Russell, KS  
 Brack AA #2  
 Job Ticket: 45715  
 DST#: 2  
 Test Start: 2012.04.29 @ 11:20:00



Craig Oil Company

15 S Main St  
 Russell KS 67665

ATTN: Steve Murphy

**Tool Information**

Drill Pipe: Length: 3049.00 ft Diameter: 3.80 inches Volume: 42.77 bbl Tool Weight: 2500.00 lb  
 Heavy Wt. Pipe: Length: 0.00 ft Diameter: 2.75 inches Volume: 0.00 bbl Weight set on Packer: 25000.00 lb  
 Drill Collar: Length: 0.00 ft Diameter: 2.25 inches Volume: 0.00 bbl Weight to Pull Loose: 40000.00 lb  
 Tool Chased 0.00 ft  
 String Weight: Initial 36000.00 lb Final 36000.00 lb  
 Drill Pipe Above KB: 29.00 ft  
 Depth to Top Packer: 3040.00 ft  
 Depth to Bottom Packer: 3050.00 ft  
 Interval between Packers: 10.00 ft  
 Tool Length: 3300.00 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
Shut In Tool	5.00			3025.00	
Hydraulic tool	5.00			3030.00	
Packer	5.00			3035.00	
Packer	5.00			3040.00	
Stub	1.00			3041.00	
Recorder	0.00	8372	Inside	3041.00	
Recorder	0.00	6669	Outside	3041.00	
Perforations	5.00			3046.00	
Blank Off Sub	1.00			3047.00	
Stub	3.00			3050.00	10.00
Packer	2.00			3052.00	
Perforations	13.00			3065.00	
Change Over Sub	1.00			3066.00	
Recorder	0.00	8365	Below	3066.00	
Blank Spacing	280.00			3346.00	
Change Over Sub	1.00			3347.00	
Bullnose	3.00			3350.00	
<b>Total Tool Length:</b>	<b>330.00</b>				
Bottom Of Top Packer	20.00				
Tool Interval	10.00				
Bottom Packers & Anchor	300.00				



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Craig Oil Company

17-15s-12w Russell,KS

15 S Main St  
Russell KS 67665

Brack AA #2

Job Ticket: 45715

DST#: 2

ATTN: Steve Murphy

Test Start: 2012.04.29 @ 11:20:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 42.00 sec/qt  
Water Loss: 11.18 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 7000.00 ppm  
Filter Cake: inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
7.00	VSOCM 1%o 99%m	0.098

Total Length: 7.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

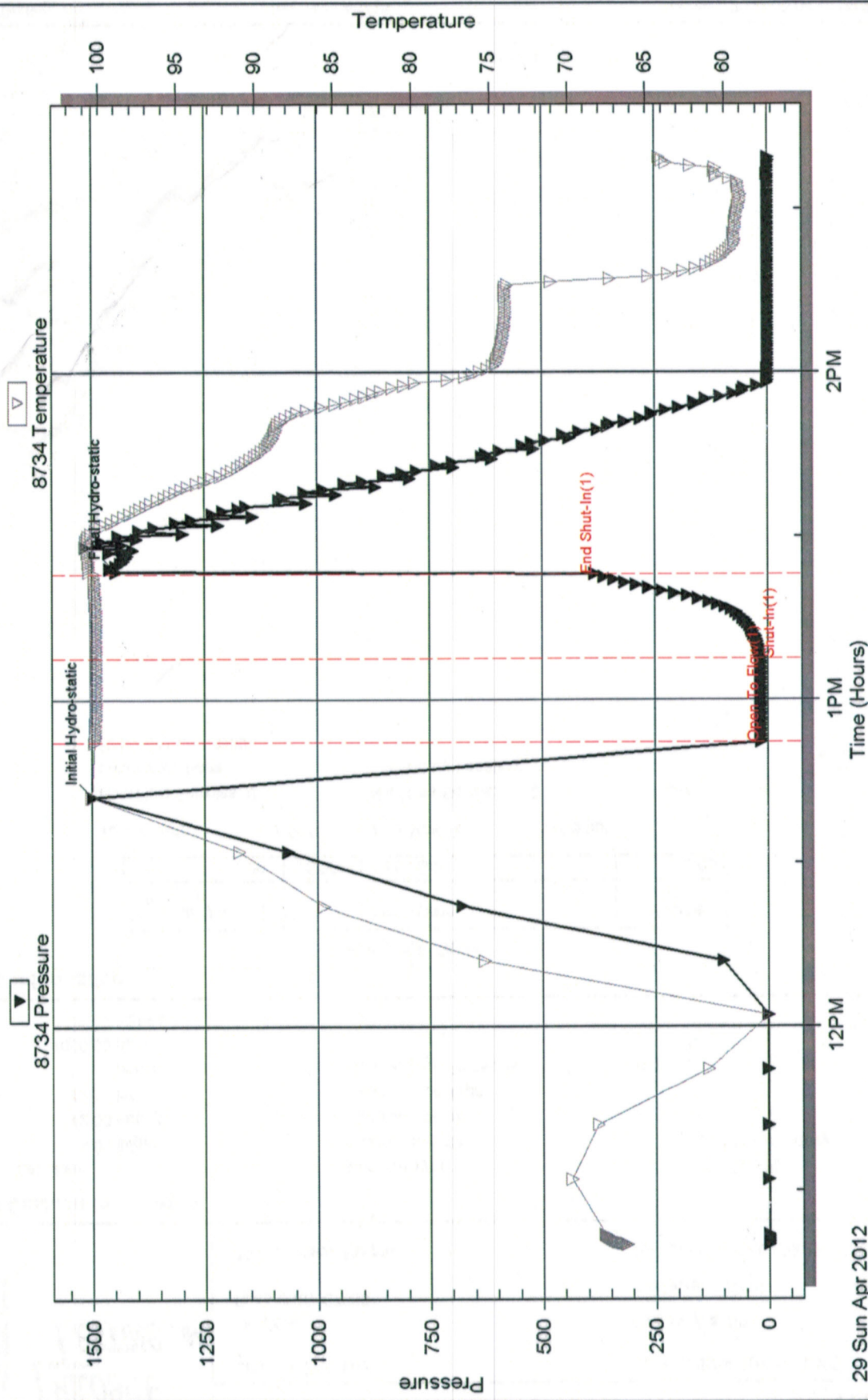
DST Test Number: 2

Brack AA #2

Outside Craig Oil Company

Serial #: 8734

### Pressure vs. Time



29 Sun Apr 2012

12PM

1PM

2PM

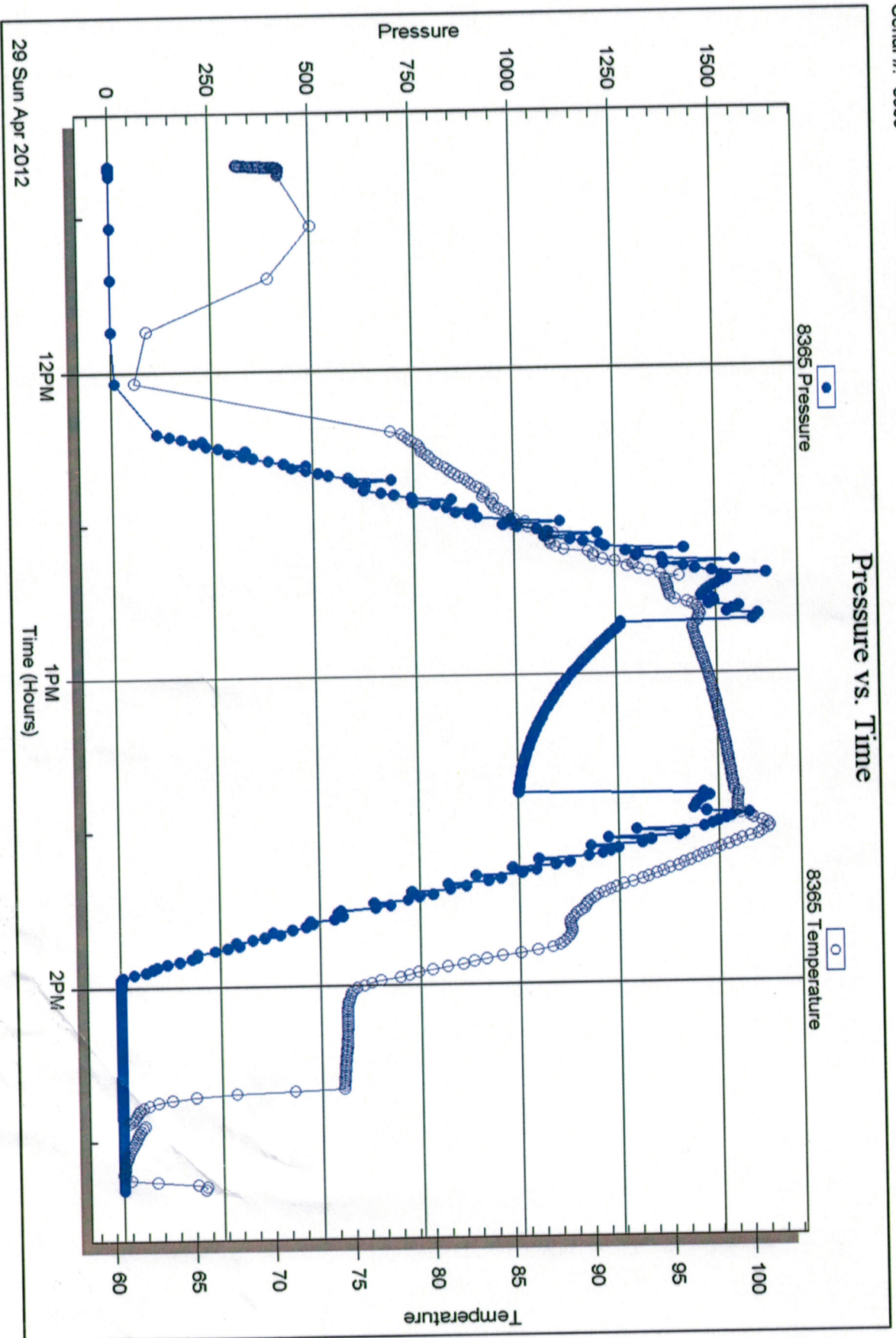
Time (Hours)

Serial #: 8365

Below (Stratella) Pll Company

Brack AA #2

DST Test Number: 2



29 Sun Apr 2012

Trilobite Testing, Inc

Ref. No: 45715

Printed: 2012.05.04 @ 09:22:28





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

APR 30 2012

## Test Ticket

BY: \_\_\_\_\_

NO. 45714

Well Name & No. BRACK AA#2 Test No. 1 Date 4-28-12  
 Company Craig Ward Craig Oil Company Elevation 1850 KB 1844 GL  
 Address 1505. main Russell Ks 67665  
 Co. Rep / Geo. Ward Craig 483-1543 Steve Murphy Royal Rig 2  
 Location: Sec. 17 Twp. 13 S Rge. 12 W Co. Russell State Ks

Interval Tested 3280-3300 Zone Tested Arbuckle  
 Anchor Length 20 Drill Pipe Run 3268 Mud Wt. 9.2  
 Top Packer Depth 3275 Drill Collars Run 0 Vis 57  
 Bottom Packer Depth 3280 Wt. Pipe Run 0 WL 9.6  
 Total Depth 3300 Chlorides 6000 ppm System LCM 1.5

Blow Description FFP - Surface Blow Dried in 13min  
ISIP - No Blow  
FFP - No Blow  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>V50CM</u>	<u>2</u>		<u>98</u>	
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

Rec Total 3 BHT 105 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1647  Test 1150 T-On Location 16:40  
 (B) First Initial Flow 12  Jars \_\_\_\_\_ T-Started 18:36  
 (C) First Final Flow 16  Safety Joint \_\_\_\_\_ T-Open 20:22  
 (D) Initial Shut-In 894  Circ Sub \_\_\_\_\_ T-Pulled 21:52  
 (E) Second Initial Flow 13  Hourly Standby \_\_\_\_\_ T-Out 23:00  
 (F) Second Final Flow 14  Mileage 82 RT 127.10 Comments \_\_\_\_\_  
 (G) Final Shut-In 985  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1535  Straddle \_\_\_\_\_

Initial Open 15  Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Shale Packer \_\_\_\_\_  
 Final Flow 15  Extra Packer \_\_\_\_\_  
 Final Shut-In 30  Extra Recorder \_\_\_\_\_  
 Sub Total 1277.10  Day Standby \_\_\_\_\_  
 Total 1277.10  Accessibility \_\_\_\_\_  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]  
 Trilobite Testing Inc. shall not be liable for damaged or 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.







# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
APR 30 2012

## Test Ticket

NO. 45715

Well Name & No. Brack AA #2 Test No. 2 Date 4-29-12  
 Company Craig Oil Company Elevation 1850 KB 1844 GL  
 Address 15 S. Main Russell Ks 67665  
 Co. Rep / Geo. Steve Murphy Rig Royal #2  
 Location: Sec. 17 Twp. 15S Rge. 12W Co. Russell State K5

Interval Tested 3040-3050 Zone Tested LKC "C"  
 Anchor Length 10 Anchor 300 Tail Pipe 4 Drill Pipe Run 3049 Mud Wt. 9.1  
 Top Packer Depth 3040 Drill Collars Run 0 Vis 42  
 Bottom Packer Depth 3050 Wt. Pipe Run 0 WL 11.2  
 Total Depth 3350 Chlorides 7000 ppm System LCM 2

Blow Description IFP - Surface Blow Died in 12 min  
ISIP - No Blow

pull Tool

Rec	Feet of	%gas	%oil	%water	%mud
<u>7</u>	<u>150cm</u>		<u>1</u>	<u>99</u>	
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

Rec Total 7 BHT 100 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1497  Test 1150 T-On Location 10:00  
 (B) First Initial Flow 14  Jars \_\_\_\_\_ T-Started 11:20  
 (C) First Final Flow 15  Safety Joint \_\_\_\_\_ T-Open 12:50  
 (D) Initial Shut-In 382  Circ Sub \_\_\_\_\_ T-Pulled 13:23  
 (E) Second Initial Flow 1443  Hourly Standby \_\_\_\_\_ T-Out 14:40  
 (F) Second Final Flow \_\_\_\_\_  Mileage 82 RT 127.10 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1445  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1877.10  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1877.10

Approved By \_\_\_\_\_ Our Representative [Signature]  
 Trilobite Testing Inc. shall not be liable for damaged 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.

