



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

K&N Petroleum Inc.

13-19-10, Rice, KS

1105 Walnut  
Greatbend KS 67530

**Browning C #1-13**

Job Ticket: 56202

**DST#: 1**

ATTN: Jim musgrove

Test Start: 2014.01.26 @ 15:50:00

## GENERAL INFORMATION:

Formation: **Arb**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:04:00

Time Test Ended: 22:32:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: **3232.00 ft (KB) To 3295.00 ft (KB) (TVD)**

Reference Elevations: 1753.00 ft (KB)

Total Depth: 3295.00 ft (KB) (TVD)

1740.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 13.00 ft

**Serial #: 8018**

**Outside**

Press@RunDepth: 20.95 psig @ 3235.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.26

End Date:

2014.01.26

Last Calib.: 2014.01.26

Start Time: 15:50:05

End Time:

22:32:29

Time On Btm: 2014.01.26 @ 18:03:30

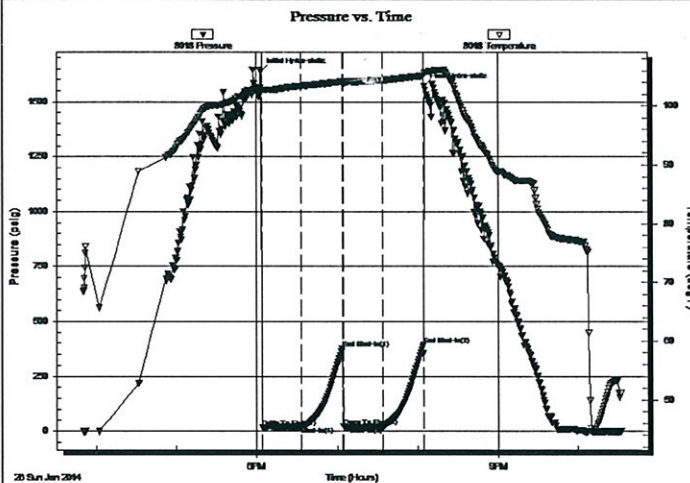
Time Off Btm: 2014.01.26 @ 20:05:00

TEST COMMENT: IF-1in blow died in 23min

ISI-No blow

FF-No blow

FSI-No blow



## PRESSURE SUMMARY

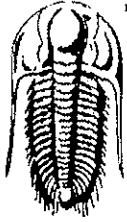
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1634.36	103.07	Initial Hydro-static
1	18.41	102.55	Open To Flow (1)
30	21.35	103.41	Shut-In(1)
60	375.31	104.11	End Shut-In(1)
61	21.73	103.99	Open To Flow (2)
91	20.95	104.39	Shut-In(2)
121	395.07	105.13	End Shut-In(2)
122	1569.35	105.64	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	SOCM	0.14

## Gas Rates

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



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**Browning C #1-13**

Job Ticket: 56202

DST#: 1

ATTN: Jim musgrove

Test Start: 2014.01.26 @ 15:50:00

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
10.00	SOCM	0.140

Total Length: 10.00 ft      Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

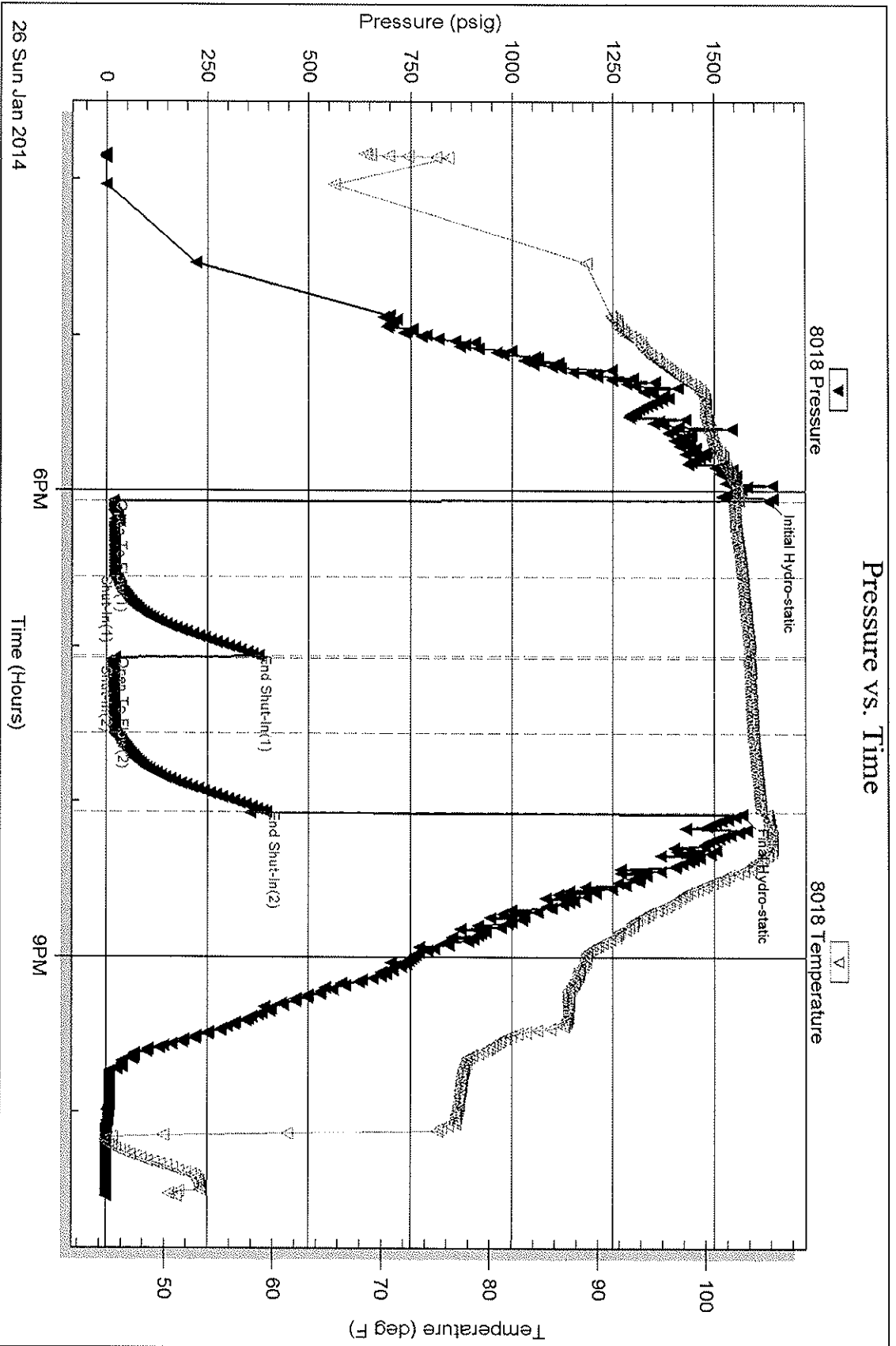
Recovery Comments:

Serial #: 8018

Outside K&N Petroleum Inc.

Brownrig C#1-13

DST Test Number: 1





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# DRILL STEM TEST REPORT

K&N Petroleum Inc.  
1105 Walnut  
Great Bend KS 67530  
ATTN: Jim Musgrove

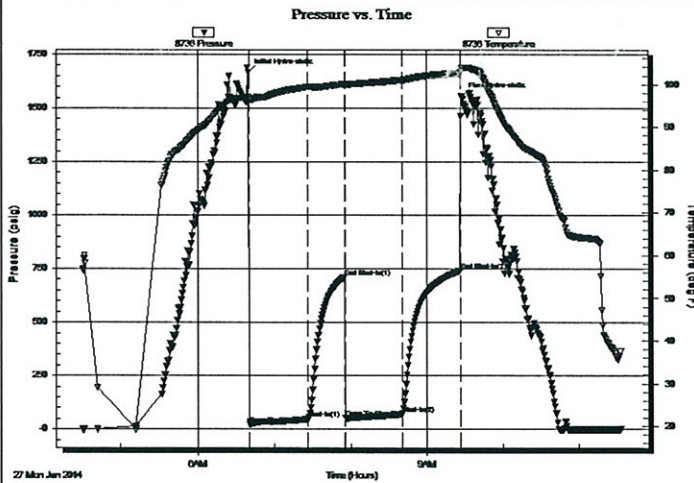
**13-19-10, Rice, KS**  
**Browning C #1-13**  
Job Ticket: 56203      **DST#: 2**  
Test Start: 2014.01.27 @ 04:30:00

## GENERAL INFORMATION:

Formation: **Arb**  
Deviated: **No** Whipstock: **ft (KB)**  
Time Tool Opened: 06:40:45  
Time Test Ended: 11:32:45  
Test Type: **Conventional Bottom Hole (Reset)**  
Tester: **Brett Dickinson**  
Unit No: **59**  
Interval: **3232.00 ft (KB) To 3302.00 ft (KB) (TVD)**  
Total Depth: **3302.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
Reference Elevations: **1753.00 ft (KB)**  
**1740.00 ft (CF)**  
KB to GR/CF: **13.00 ft**

**Serial #: 8736**      **Inside**  
Press@RunDepth: **70.88 psig @ 3235.00 ft (KB)**      Capacity: **8000.00 psig**  
Start Date: **2014.01.27**      End Date: **2014.01.27**      Last Calib.: **2014.01.27**  
Start Time: **04:30:05**      End Time: **11:32:44**      Time On Btm: **2014.01.27 @ 06:40:00**  
Time Off Btm: **2014.01.27 @ 09:28:00**

TEST COMMENT: IF-BOB in 22min  
ISI-No blow  
FF-BOB in 21min  
FSI-No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1666.70	96.96	Initial Hydro-static
1	23.16	96.42	Open To Flow (1)
47	47.49	99.49	Shut-In(1)
75	713.12	100.07	End Shut-In(1)
76	51.59	99.97	Open To Flow (2)
121	70.88	101.05	Shut-In(2)
167	742.51	102.67	End Shut-In(2)
168	1556.33	103.87	Final Hydro-static

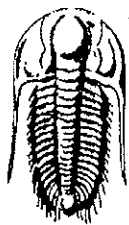
## Recovery

Length (ft)	Description	Volume (bbl)
40.00	SGOCM 20%G 20%O 60%M	0.56
100.00	GO 20%G 80%O	1.40
0.00	450ft GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



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Great Bend KS 67530  
ATTN: Jim Musgrove

13-19-10,Rice,KS  
**Browning C #1-13**  
Job Ticket: 56203      **DST#: 2**  
Test Start: 2014.01.27 @ 04:30:00

### Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	38 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	7.98 in <sup>3</sup>	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
40.00	SGOCM 20%G 20%O 60%M	0.561
100.00	GO 20%G 80%O	1.403
0.00	450ft GIP	0.000

Total Length: 140.00 ft      Total Volume: 1.964 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8736

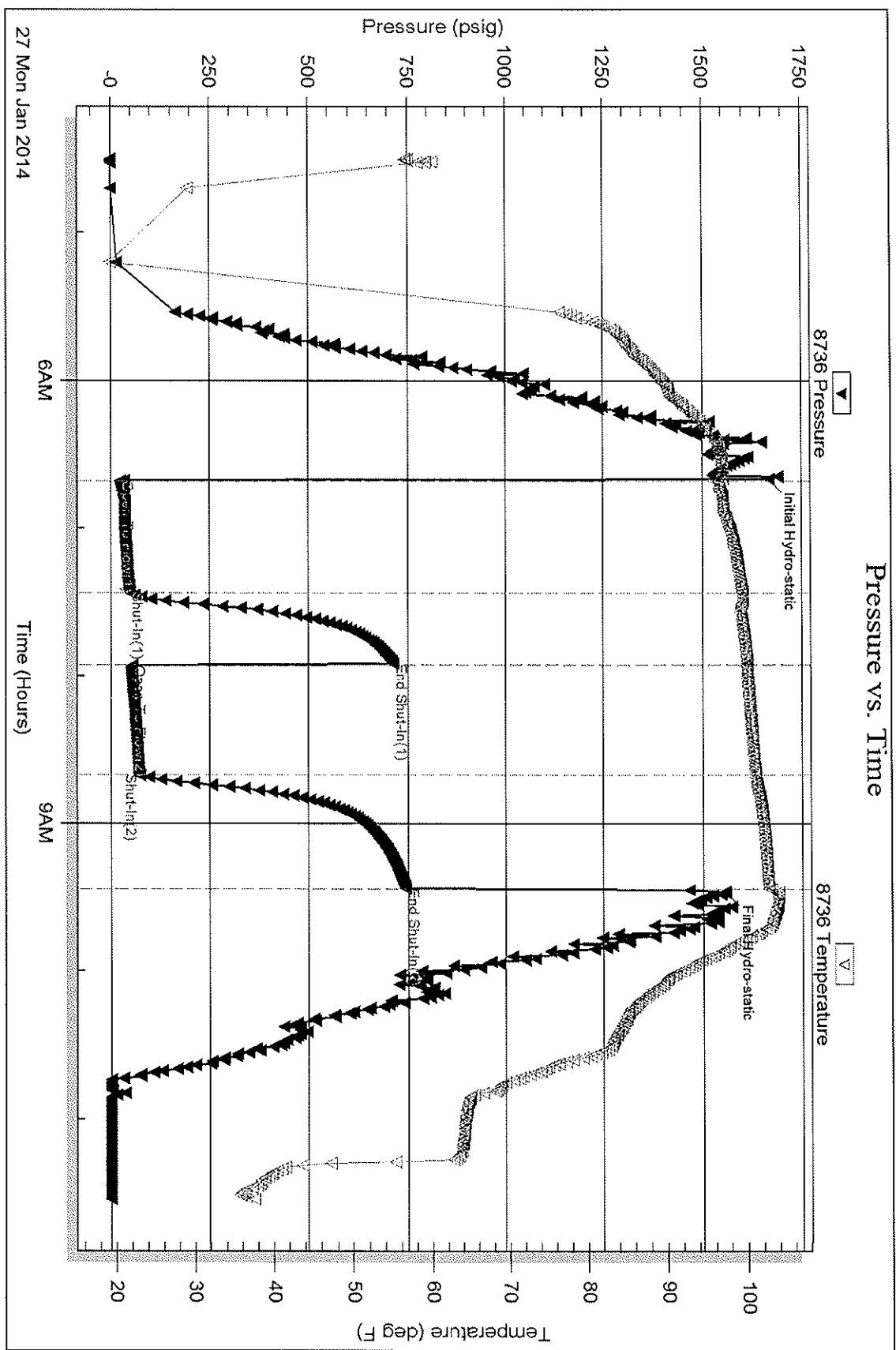
Inside

K&N Petroleum Inc.

Browning C #1-13

DST Test Number: 2

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 56203

Printed: 2014.01.27 @ 13:01:31