



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Black Diamond Oil

18-4s-19w

Po Box 641
Hays Ks 67601

Zillinger A #1

ATTN: Jeff Lawler

Job Ticket: 041773

DST#: 2

Test Start: 2013.09.29 @ 09:41:13

GENERAL INFORMATION:

Formation: **LKC=C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:55:43

Time Test Ended: 15:36:43

Test Type: (Reset)

Tester: Jeff Brown

Unit No: 67

Interval: 3198.00 ft (KB) To 3225.00 ft (KB) (TVD)

Reference Elevations: 1998.00 ft (KB)

Total Depth: 3225.00 ft (KB) (TVD)

1993.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 263.01 psig @ 3202.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.29

End Date: 2013.09.29

Last Calib.: 2013.09.29

Start Time: 09:41:14

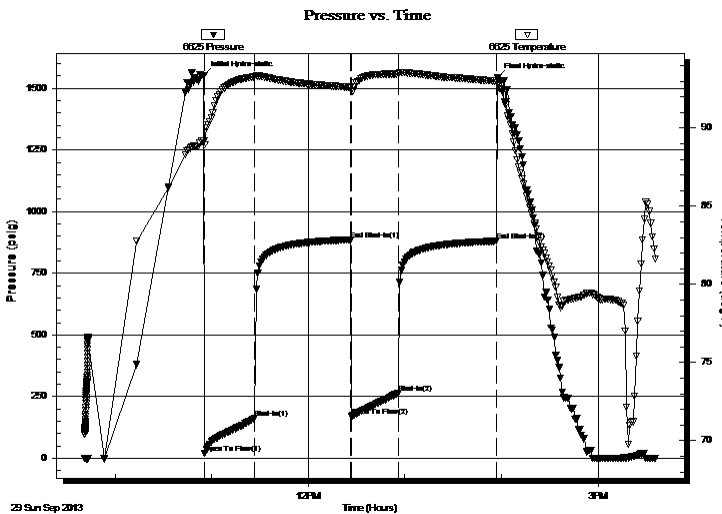
End Time: 15:35:43

Time On Btm: 2013.09.29 @ 10:55:13

Time Off Btm: 2013.09.29 @ 13:57:43

TEST COMMENT: IFP=Good Blow BOB in 8 min
ISI=Dead no blow back
FFP=Weak blow built to 3-1/2 in
FSI=Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1551.42	89.19	Initial Hydro-static
1	21.25	88.96	Open To Flow (1)
32	161.80	93.28	Shut-In(1)
91	883.85	92.61	End Shut-In(1)
92	168.70	92.39	Open To Flow (2)
121	263.01	93.47	Shut-In(2)
182	880.22	93.00	End Shut-In(2)
183	1541.99	92.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
500.00	MW 20%M 80%W	5.90
31.00	WM with oil spots 45%W 55%M	0.43

Gas Rates

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

* Recovery from multiple tests



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Job Ticket: 041773

DST#: 2

ATTN: Jeff Lawler

Test Start: 2013.09.29 @ 09:41:13

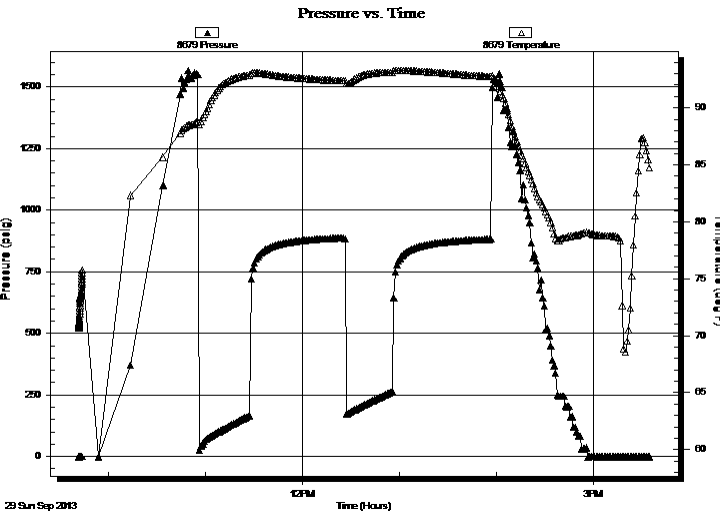
GENERAL INFORMATION:

Formation: **LKC=C**
 Deviated: No Whipstock: ft (KB) Test Type: (Reset)
 Time Tool Opened: 10:55:43 Tester: Jeff Brown
 Time Test Ended: 15:36:43 Unit No: 67
Interval: 3198.00 ft (KB) To 3225.00 ft (KB) (TVD) Reference Elevations: 1998.00 ft (KB)
 Total Depth: 3225.00 ft (KB) (TVD) 1993.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8679 Inside

Press @ Run Depth: psig @ 3202.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.29 End Date: 2013.09.29 Last Calib.: 2013.09.29
 Start Time: 09:41:56 End Time: 15:34:55 Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP=Good Blow BOB in 8 min
 ISI=Dead no blow back
 FFP=Weak blow built to 3-1/2 in
 FSI=Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
500.00	MW 20%M 80%W	5.90
31.00	WM with oil spots 45%W 55%M	0.43

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

18-4s-19w

Po Box 641
Hays Ks 67601

Zillinger A #1

Job Ticket: 041773

DST#: 2

ATTN: Jeff Lawler

Test Start: 2013.09.29 @ 09:41:13

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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
500.00	MW 20%M 80%W	5.902
31.00	WM with oil spots 45%W 55%M	0.435

Total Length: 531.00 ft

Total Volume: 6.337 bbl

Num Fluid Samples: 0

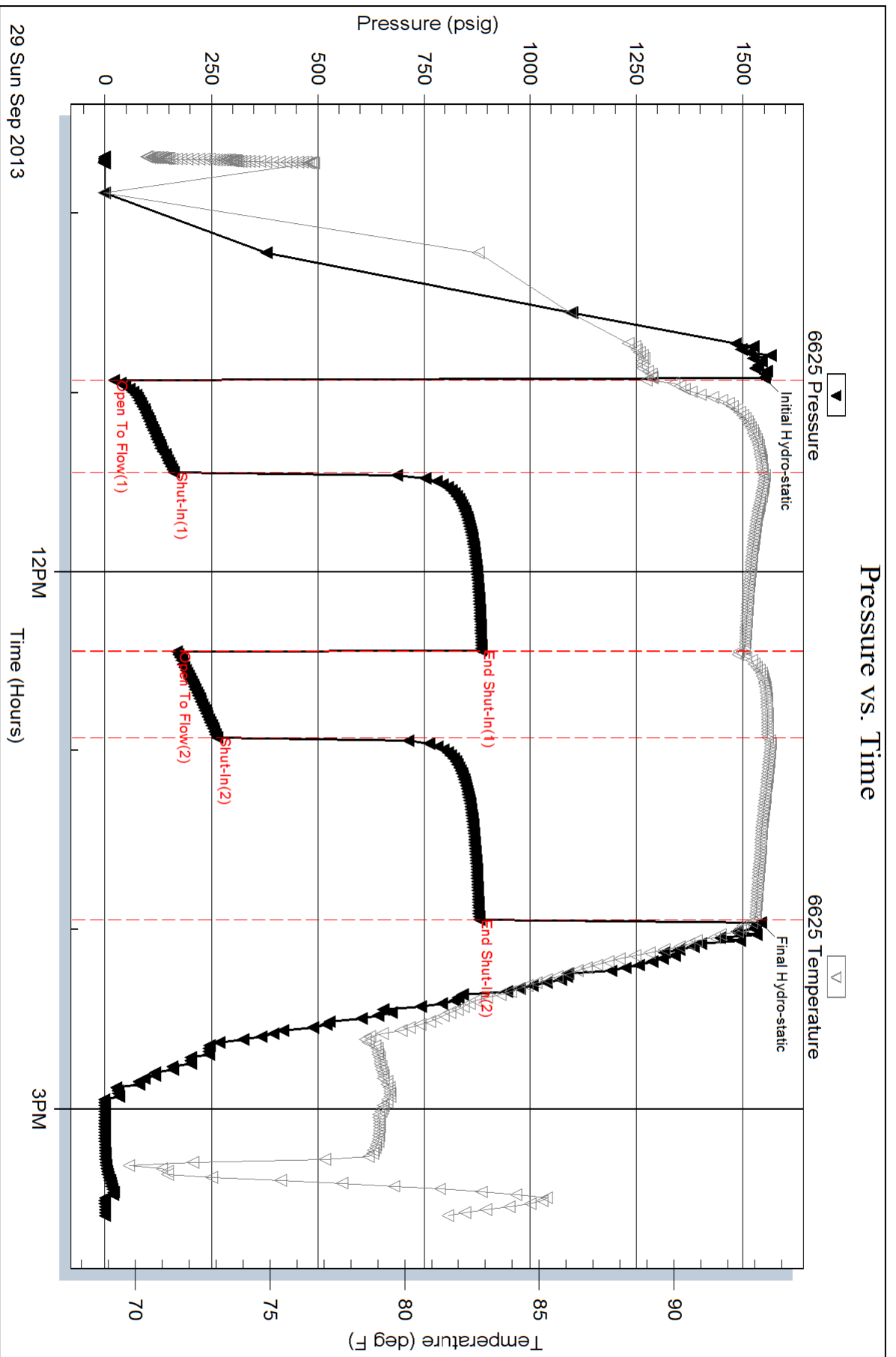
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Serial #: 8679

Inside

Black Diamond Oil

Zilinger A #1

DST Test Number: 2

