



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Pioneer Resources
80 Windmill Dr.
Phillipsburg KS, 67661
ATTN: Steve Murphy

28-12s-14w Russell KS

Hopper #1

Job Ticket: 56179

DST#: 3

Test Start: 2014.01.27 @ 01:22:05

GENERAL INFORMATION:

Formation:

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:59:50

Time Test Ended: 08:26:35

Test Type: Conventional Straddle (Initial)

Tester: Tim Phillips

Unit No: 73

Interval: 2968.00 ft (KB) To 2988.00 ft (KB) (TVD)

Reference Elevations: 1611.00 ft (KB)

Total Depth: 3090.00 ft (KB) (TVD)

1606.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8875 Outside

Press@RunDepth: 23.67 psig @ 2969.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.27 End Date: 2014.01.27

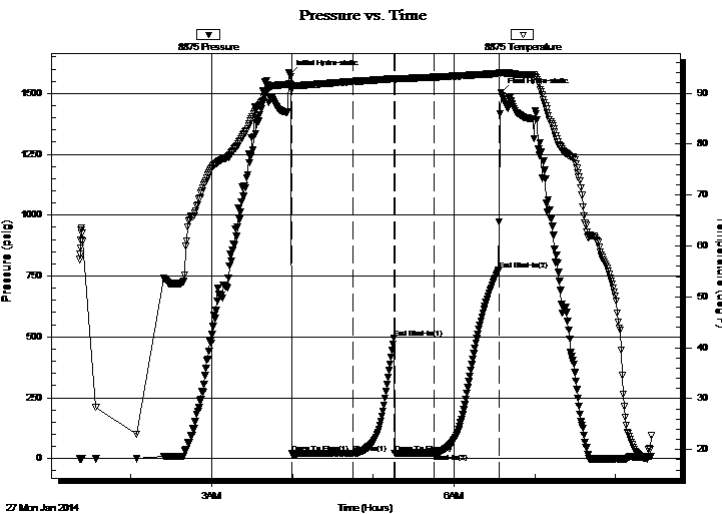
Last Calib.: 2014.01.27

Start Time: 01:22:10 End Time: 08:26:34

Time On Btm: 2014.01.27 @ 03:58:05

Time Off Btm: 2014.01.27 @ 06:35:05

TEST COMMENT: IFP-30-built to 3/4 in. Died back to 1/4 in
ISI-45-Dead no blow back
FF-30-Dead no blow
FSI-45-Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1577.88	91.77	Initial Hydro-static
2	19.93	91.32	Open To Flow (1)
47	22.66	92.30	Shut-In(1)
78	493.71	92.86	End Shut-In(1)
78	22.60	92.64	Open To Flow (2)
107	23.67	93.16	Shut-In(2)
155	774.77	93.86	End Shut-In(2)
157	1501.93	94.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.04

Gas Rates

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



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Tester: Tim Phillips

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Interval: 2968.00 ft (KB) To 2988.00 ft (KB) (TVD)

Reference Elevations: 1611.00 ft (KB)

Total Depth: 3090.00 ft (KB) (TVD)

1606.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8655 Below (Straddle)

Press@RunDepth: psig @ 3086.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.27

End Date:

2014.01.27

Last Calib.:

2014.01.27

Start Time: 01:22:05

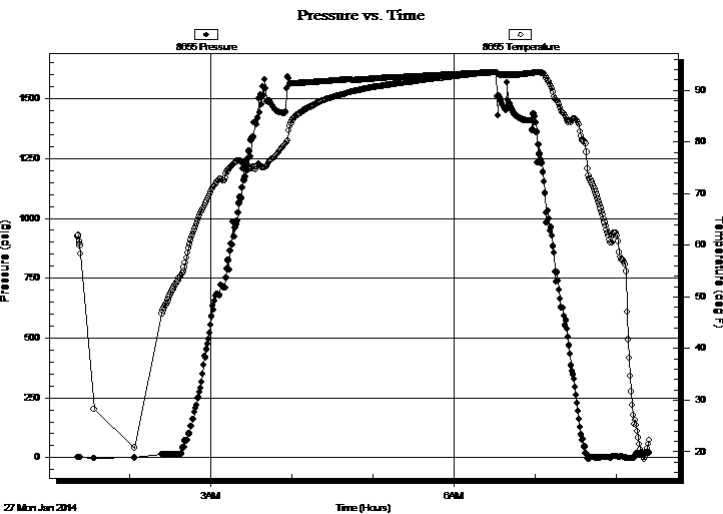
End Time:

08:24:29

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP-30-built to 3/4 in. Died back to 1/4 in
 ISI-45-Dead no blow back
 FF-30-Dead no blow
 FSI-45-Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.04

Gas Rates

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



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DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources
80 Windmill Dr.
Phillipsburg KS, 67661
ATTN: Steve Murphy

28-12s-14w Russell KS
Hopper #1
Job Ticket: 56179 **DST#: 3**
Test Start: 2014.01.27 @ 01:22:05

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: 43.00 sec/qt	Cushion Volume: bbl		
Water Loss: 11.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5600.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud	0.037

Total Length: 5.00 ft Total Volume: 0.037 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

