



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Pioneer Resources LLC.

1-14s-32w-Logan, KS

80 Windwill Dr.
Phillipsburg, KS 67661

Harms #2

Job Ticket: 54552

DST#: 1

ATTN: Cliff Ottaway

Test Start: 2013.12.14 @ 02:53:00

GENERAL INFORMATION:

Formation: **Lansing "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:31:00

Time Test Ended: 09:51:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Cornelio Landa III

Unit No: 46

Interval: 3980.00 ft (KB) To 4005.00 ft (KB) (TVD)

Reference Elevations: 2929.00 ft (KB)

Total Depth: 4005.00 ft (KB) (TVD)

2921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 8.00 ft

Serial #: 8675 Inside

Press @ Run Depth: 41.77 psig @ 3982.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.14

End Date:

2013.12.14

Last Calib.: 2013.12.14

Start Time: 02:53:15

End Time:

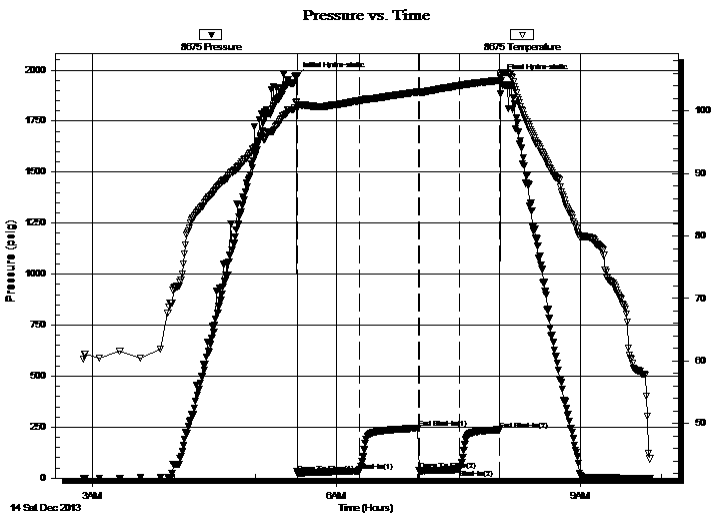
09:51:00

Time On Btm: 2013.12.14 @ 05:30:30

Time Off Btm: 2013.12.14 @ 08:01:00

TEST COMMENT: IF: 2 in. of blow
IS: Bled off 1 min.- No return
FF: No blow
FS: No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1967.85	101.41	Initial Hydro-static
1	24.42	100.93	Open To Flow (1)
46	35.12	101.65	Shut-In(1)
90	245.18	103.04	End Shut-In(1)
91	36.22	102.96	Open To Flow (2)
120	41.77	104.06	Shut-In(2)
150	237.45	104.91	End Shut-In(2)
151	1960.67	105.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
59.00	Mud 100m w/oil specs	0.29

Gas Rates

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



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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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
59.00	Mud 100m w/oil specs	0.290

Total Length: 59.00 ft Total Volume: 0.290 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

