



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Richland Oil Investments
608 E 1st
Palco, Ks 67657
ATTN: Steve Murphy

22-12-33 Logan, KS

Moore 22-2

Job Ticket: 63783

DST#: 4

Test Start: 2017.04.03 @ 12:42:30

GENERAL INFORMATION:

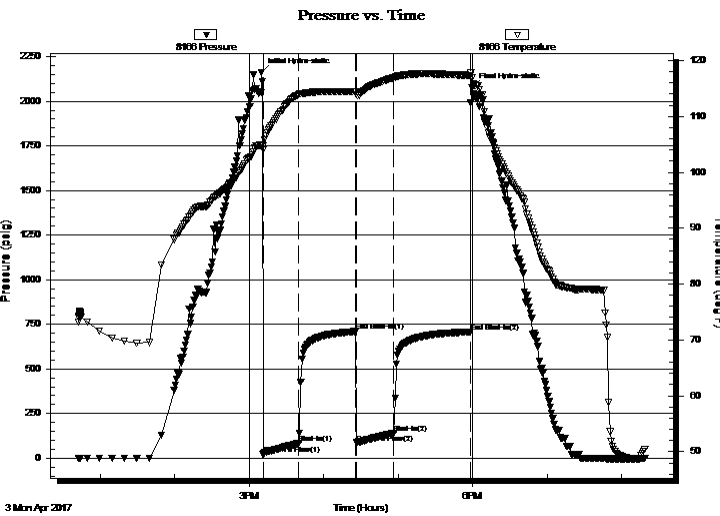
Formation: **J-K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:11:00
 Time Test Ended: 20:18:30
 Interval: **4250.00 ft (KB) To 4316.00 ft (KB) (TVD)**
 Total Depth: 4250.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 3114.00 ft (KB)
 3104.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8166

Outside

Press@RunDepth: 140.75 psig @ 4251.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.04.03 End Date: 2017.04.03 Last Calib.: 2017.04.03
 Start Time: 12:42:35 End Time: 20:18:29 Time On Btm: 2017.04.03 @ 15:10:00
 Time Off Btm: 2017.04.03 @ 17:59:30

TEST COMMENT: IF: BOB in 5 min.
 IS: Surface blow built to 5.
 FF: BOB in 5 min.
 FS: BOB in 16 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2161.31	104.95	Initial Hydro-static
1	19.31	103.98	Open To Flow (1)
30	82.12	113.95	Shut-In(1)
76	709.34	114.46	End Shut-In(1)
77	85.40	113.94	Open To Flow (2)
107	140.75	116.90	Shut-In(2)
168	707.34	117.32	End Shut-In(2)
170	2077.32	116.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	gocm 40%g 10%o 50%m	1.74
62.00	mogo 40%g 50%o 10%m	0.87
155.00	go 40%g 60%o	2.17
0.00	1519 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Richland Oil Investments

22-12-33 Logan, KS

608 E 1st
Palco, Ks 67657

Moore 22-2

Job Ticket: 63783

DST#: 4

ATTN: Steve Murphy

Test Start: 2017.04.03 @ 12:42:30

GENERAL INFORMATION:

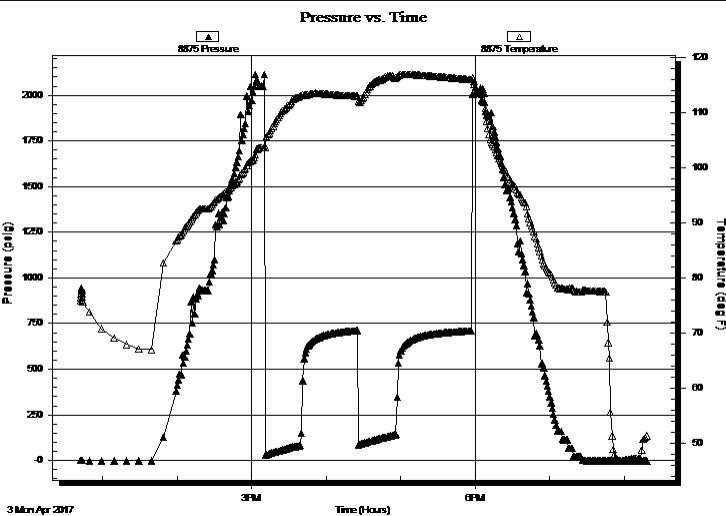
Formation: **J-K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:11:00
 Time Test Ended: 20:18:30
 Interval: **4250.00 ft (KB) To 4316.00 ft (KB) (TVD)**
 Total Depth: 4250.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 3114.00 ft (KB)
 3104.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8875

Inside

Press@RunDepth: psig @ 4251.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.04.03 End Date: 2017.04.03 Last Calib.: 2017.04.03
 Start Time: 12:42:09 End Time: 20:18:03 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: BOB in 5 min.
 IS: Surface blow built to 5.
 FF: BOB in 5 min.
 FS: BOB in 16 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	gocm 40%g 10%o 50%m	1.74
62.00	mogo 40%g 50%o 10%m	0.87
155.00	go 40%g 60%o	2.17
0.00	1519 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Richland Oil Investments

22-12-33 Logan, KS

608 E 1st
Palco, Ks 67657

Moore 22-2

Job Ticket: 63783

DST#: 4

ATTN: Steve Murphy

Test Start: 2017.04.03 @ 12:42:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	gocm 40%g 10%o 50%m	1.739
62.00	mcgo 40%g 50%o 10%m	0.870
155.00	go 40%g 60%o	2.174
0.00	1519 GIP	0.000

Total Length: 341.00 ft

Total Volume: 4.783 bbl

Num Fluid Samples: 0

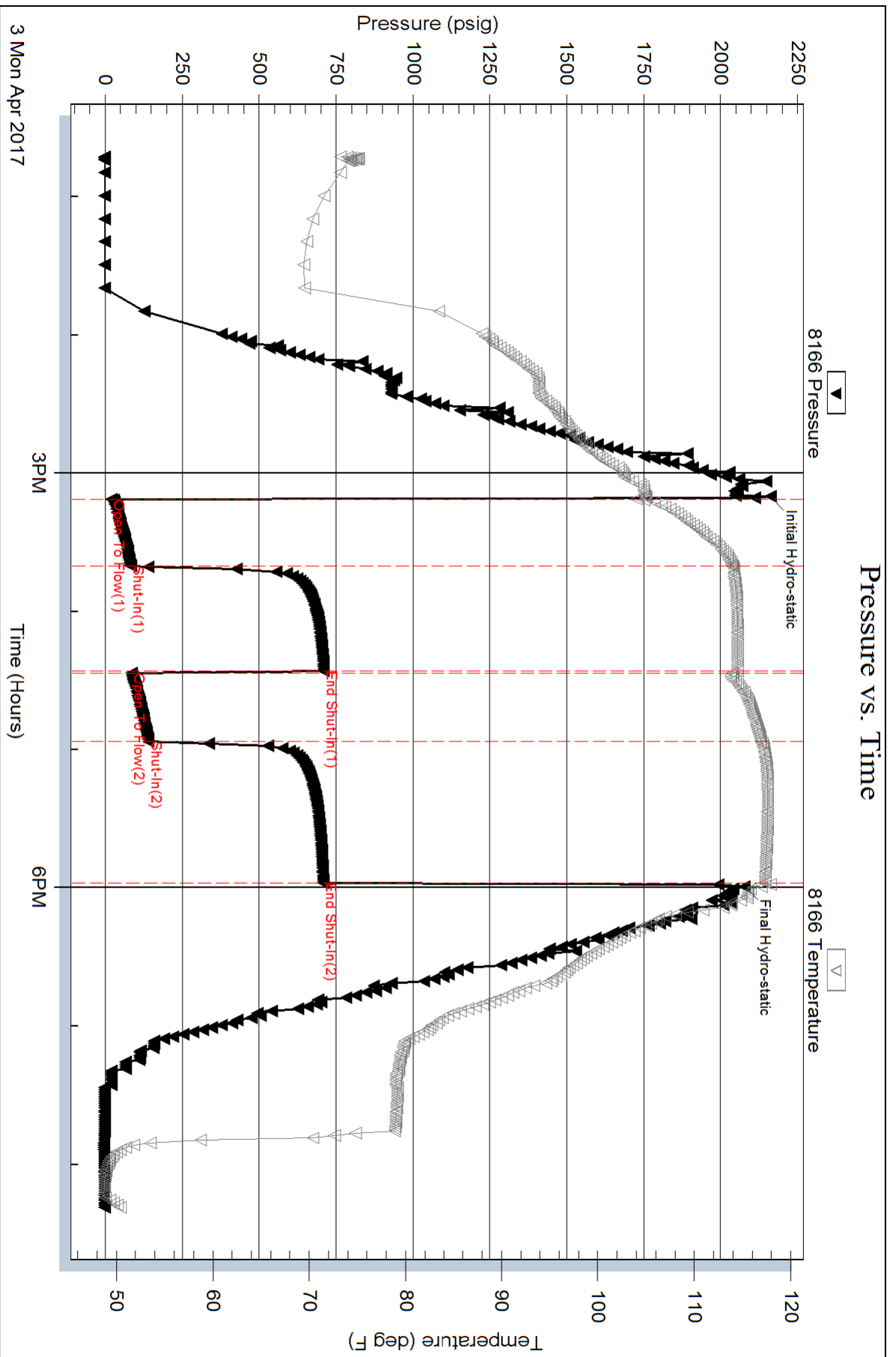
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 40@50=39



Serial #: 8875

Inside

Richland Oil Investments

Moore 22-2

DST Test Number: 4

