



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Red Oak Energy

20-14-40w Wallace

7701 E Kellogg Dr
Wichita, Ks
67207

Deines/Metcalf #1-20

Job Ticket: 61854

DST#: 1

ATTN: Sean Deenihan

Test Start: 2016.05.14 @ 00:35:49

GENERAL INFORMATION:

Formation: **A**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 02:53:49
 Time Test Ended: 08:42:04
 Interval: **4156.00 ft (KB) To 4185.00 ft (KB) (TVD)**
 Total Depth: 4185.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Shane McBride
 Unit No: 84
 Reference Elevations: 3712.00 ft (KB)
 3701.00 ft (CF)
 KB to GR/CF: 11.00 ft

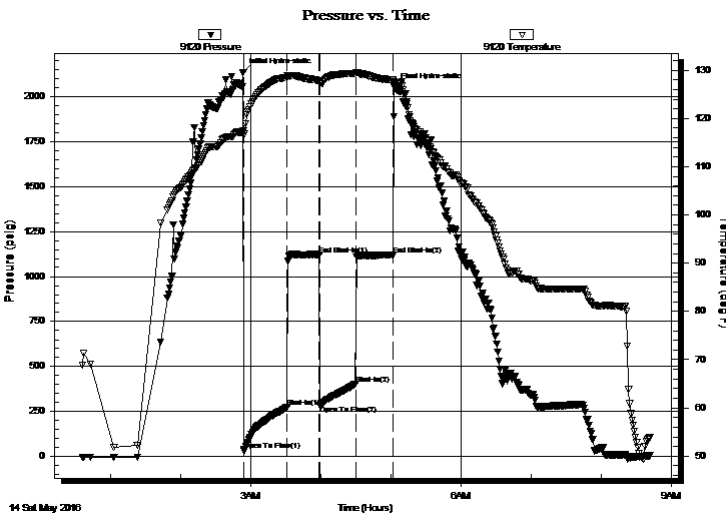
Serial #: 9120

Inside

Press@RunDepth: 403.47 psig @ 4157.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2016.05.14 End Date: 2016.05.14 Last Calib.: 2016.05.14
 Start Time: 00:35:49 End Time: 08:42:04 Time On Btm: 2016.05.14 @ 02:53:19
 Time Off Btm: 2016.05.14 @ 05:02:34

TEST COMMENT: B.O.B in 12 min
 No return
 B.O.B. 15 1/2 min
 No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2132.77	117.53	Initial Hydro-static
1	35.31	116.41	Open To Flow (1)
38	273.26	128.51	Shut-In(1)
65	1121.64	127.84	End Shut-In(1)
66	286.42	127.26	Open To Flow (2)
97	403.47	129.40	Shut-In(2)
129	1118.18	127.98	End Shut-In(2)
130	2051.08	127.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
600.00	water reversed out 100%w	5.62
180.00	s m c w 10m 90w	2.52
90.00	m c w 40m 60w	1.26

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Red Oak Energy

20-14-40w Wallace

7701 E Kellogg Dr
Wichita, Ks
67207

Deines/Metcalf #1-20

Job Ticket: 61854

DST#: 1

ATTN: Sean Deenihan

Test Start: 2016.05.14 @ 00:35:49

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

30000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
600.00	water reversed out 100%w	5.620
180.00	s m c w 10m 90w	2.525
90.00	m c w 40m 60w	1.262

Total Length: 870.00 ft Total Volume: 9.407 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

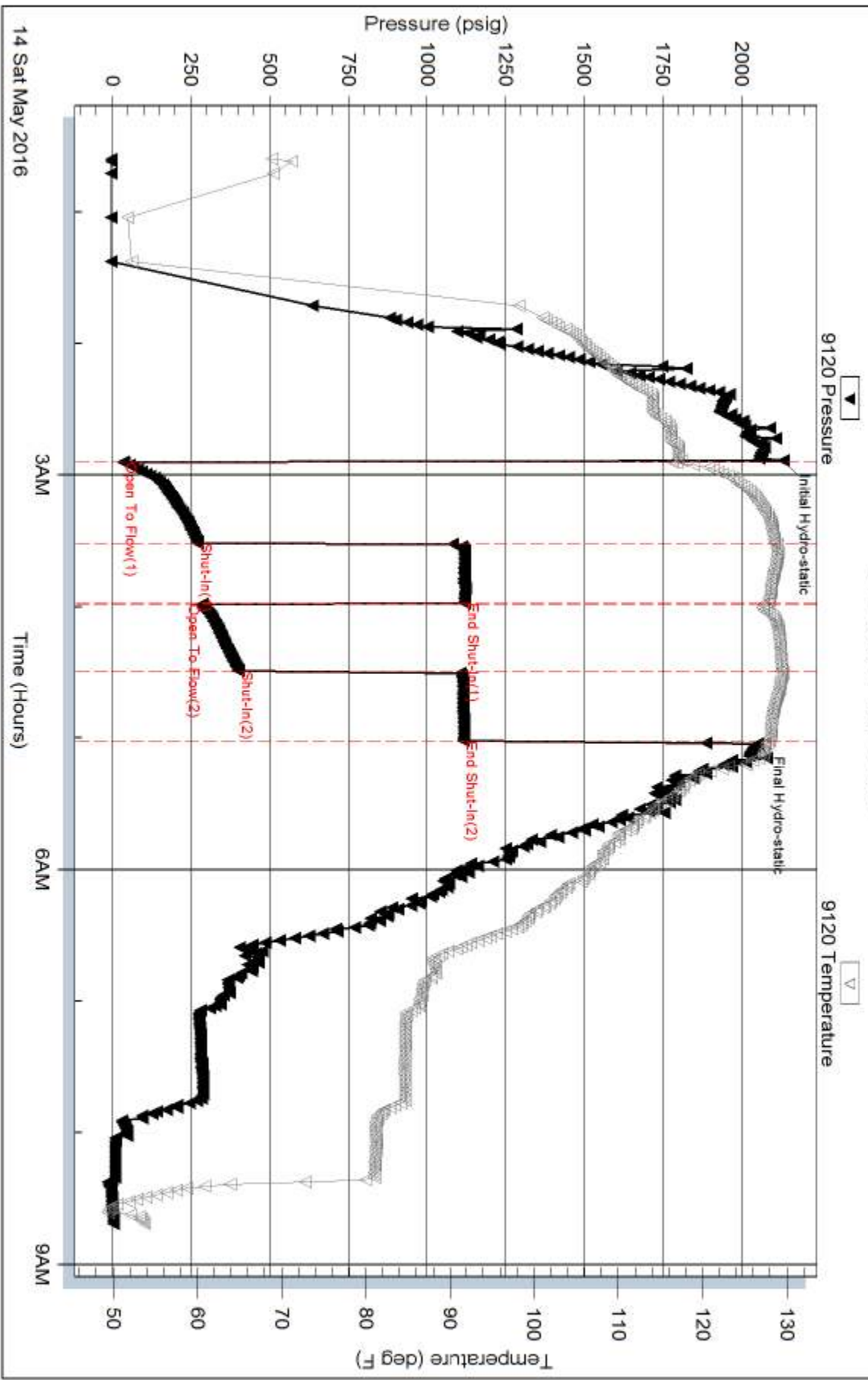
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw .311 @ 52*f =30,000 chlor

Pressure vs. Time

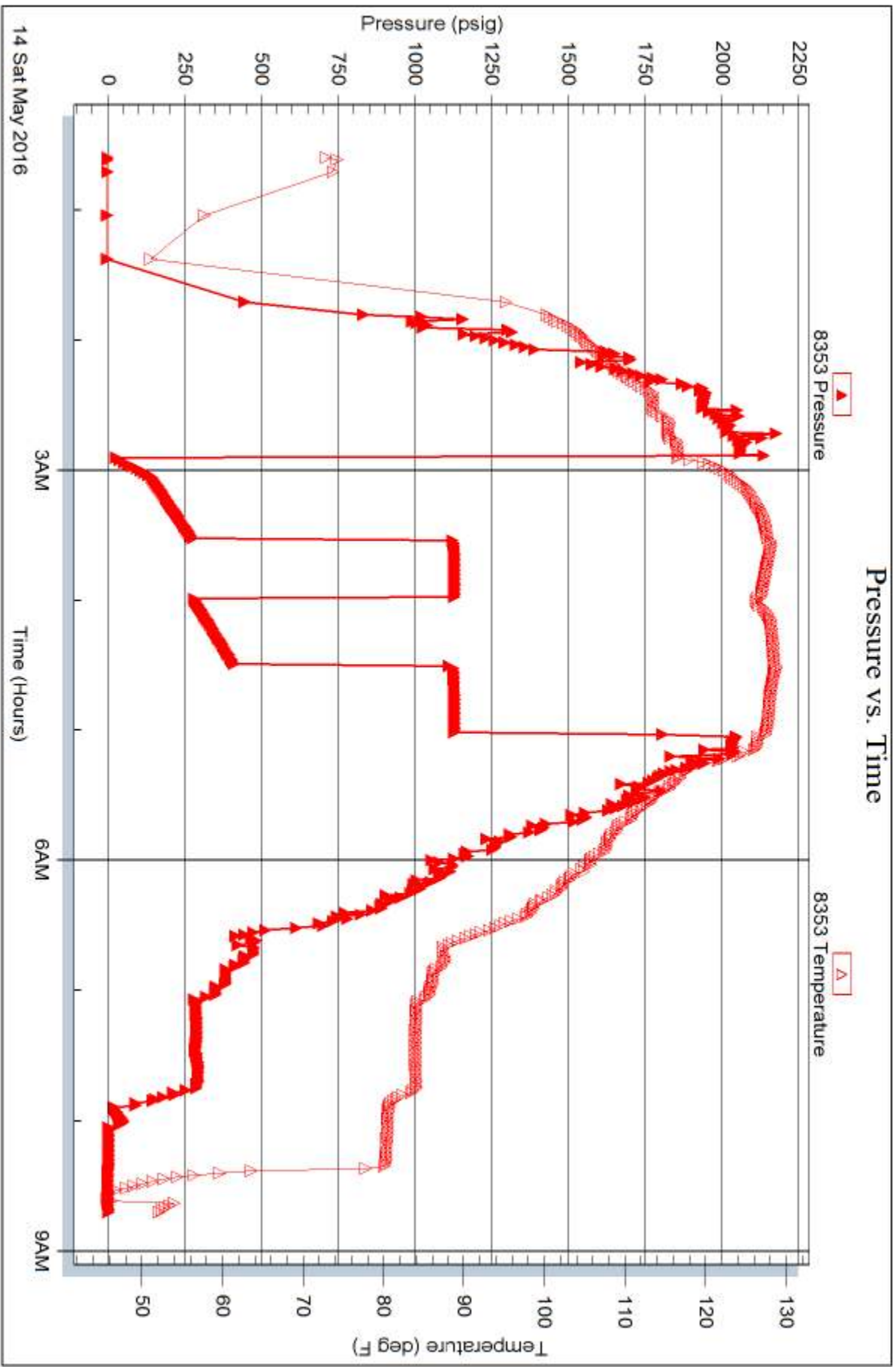


Serial #: 8353

Outside Red Oak Energy

Dienes/Metcalf #1-20

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 61854

Printed: 2016.05.14 @ 11:42:21



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Red Oak Energy

20-14-40w Wallace

7701 E Kellogg Dr
Wichita, Ks
67207

Deines/Metcalf #1-20

Job Ticket: 61855

DST#: 2

ATTN: Sean Deenihan

Test Start: 2016.05.15 @ 12:35:53

GENERAL INFORMATION:

Formation: **Morrow SS**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 14:32:23

Time Test Ended: 19:49:38

Test Type: Conventional Bottom Hole (Reset)

Tester: Shane McBride

Unit No: 84

Interval: 4880.00 ft (KB) To 4934.00 ft (KB) (TVD)

Reference Elevations: 3712.00 ft (KB)

Total Depth: 4934.00 ft (KB) (TVD)

3701.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 9120

Inside

Press@RunDepth: 217.93 psig @ 4881.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.05.15

End Date: 2016.05.15

Last Calib.: 2016.05.15

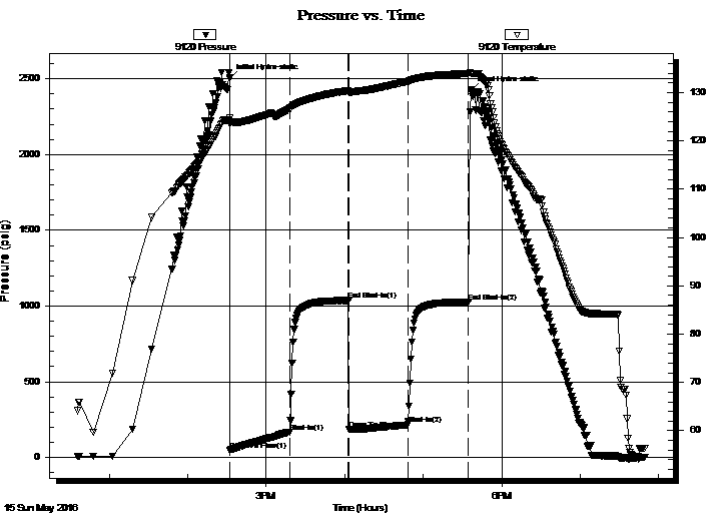
Start Time: 12:35:53

End Time: 19:49:38

Time On Btm: 2016.05.15 @ 14:32:08

Time Off Btm: 2016.05.15 @ 17:36:23

TEST COMMENT: 7 1/2 in blow
No return
7 1/2 in blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2501.74	124.77	Initial Hydro-static
1	48.73	123.57	Open To Flow (1)
46	168.02	126.62	Shut-In(1)
91	1037.86	130.35	End Shut-In(1)
92	186.16	130.11	Open To Flow (2)
136	217.93	132.30	Shut-In(2)
183	1027.28	133.93	End Shut-In(2)
185	2424.86	133.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	s g & o m c w 3 o 10g 17m 70w	0.89
120.00	s g m c w tr/oil 5g 40m 55w	0.59
90.00	w c m w /oil spots 30w 70m	1.20

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Red Oak Energy
7701 E Kellogg Dr
Wichita, Ks
67207
ATTN: Sean Deenihan

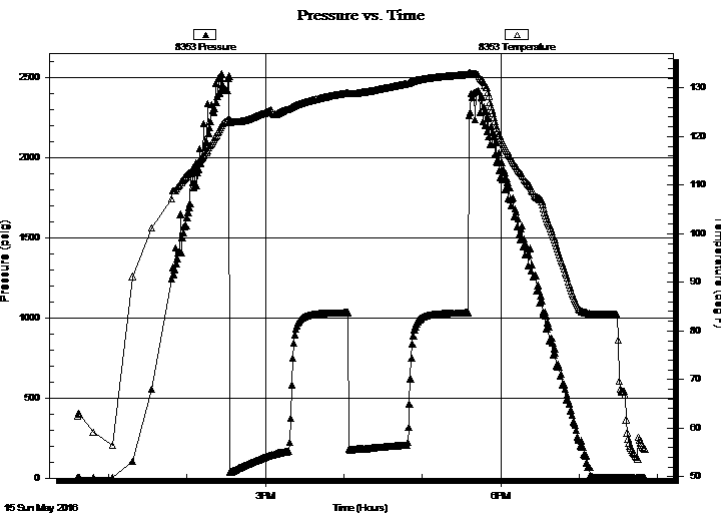
20-14-40w Wallace
Deines/Metcalf #1-20
Job Ticket: 61855 **DST#: 2**
Test Start: 2016.05.15 @ 12:35:53

GENERAL INFORMATION:

Formation: **Morrow SS**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 14:32:23
Time Test Ended: 19:49:38
Interval: **4880.00 ft (KB) To 4934.00 ft (KB) (TVD)**
Total Depth: 4934.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Shane McBride
Unit No: 84
Reference Elevations: 3712.00 ft (KB)
3701.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8353 Outside
Press@RunDepth: psig @ 4881.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2016.05.15 End Date: 2016.05.15 Last Calib.: 2016.05.15
Start Time: 12:36:11 End Time: 19:50:11 Time On Btm:
Time Off Btm:

TEST COMMENT: 7 1/2 in blow
No return
7 1/2 in blow
No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
180.00	s g & o m c w 3 o 10g 17m 70w	0.89
120.00	s g m c w tr/oil 5g 40m 55w	0.59
90.00	w c m w /oil spots 30w 70m	1.20

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Red Oak Energy

20-14-40w Wallace

7701 E Kellogg Dr
Wichita, Ks
67207

Deines/Metcalf #1-20

Job Ticket: 61855

DST#: 2

ATTN: Sean Deenihan

Test Start: 2016.05.15 @ 12:35:53

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

32000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	s g &o m c w 3 o 10g 17m 70w	0.885
120.00	s g m c w tr/oil 5g 40m 55w	0.590
90.00	w c m w /oil spots 30w 70m	1.199

Total Length: 390.00 ft Total Volume: 2.674 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

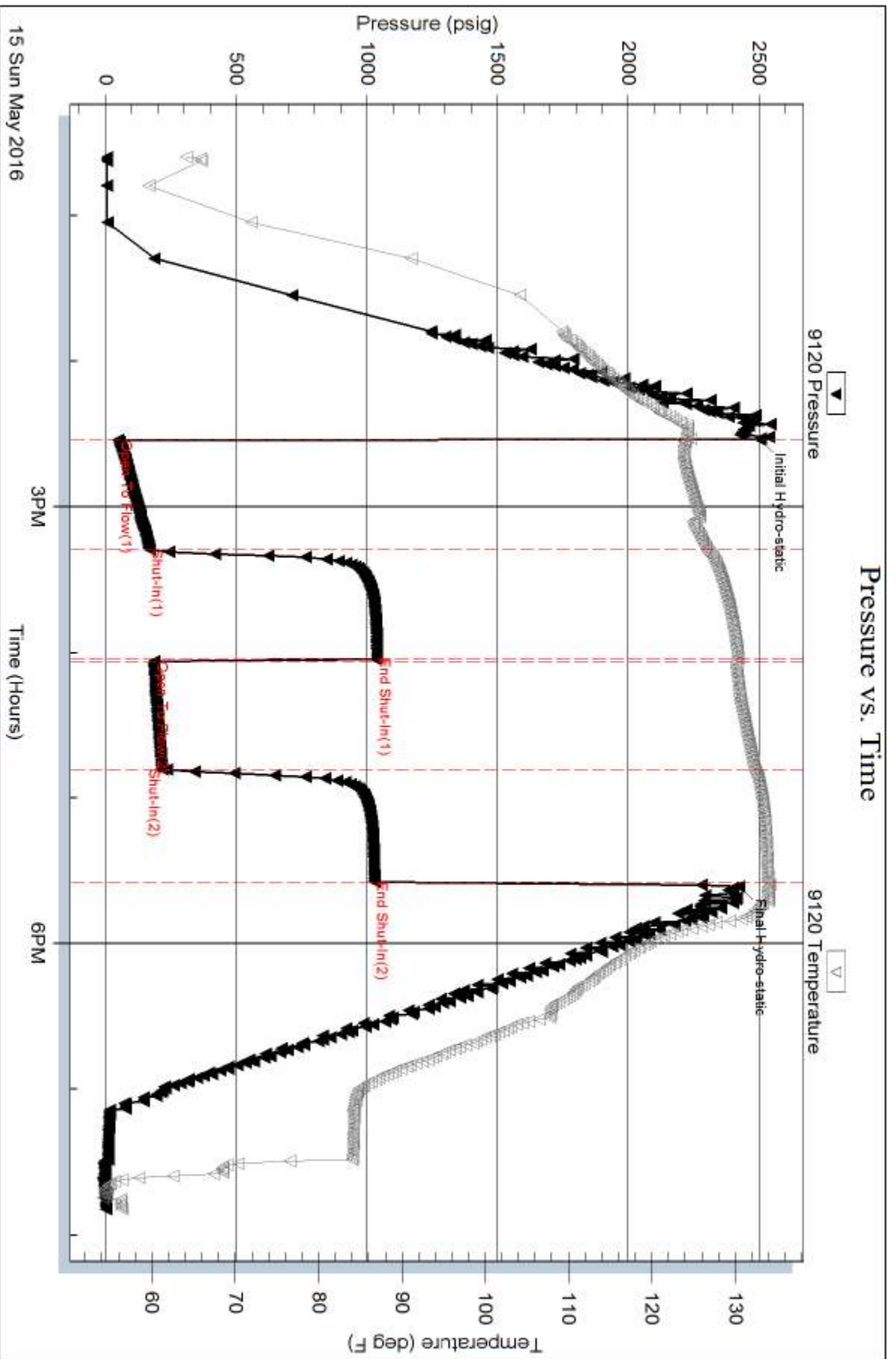
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw .256 @ 58*f = 32,000 chlor

sampler trace of gas, oil scum , 300ml mud 1700 ml w ater 560 psi

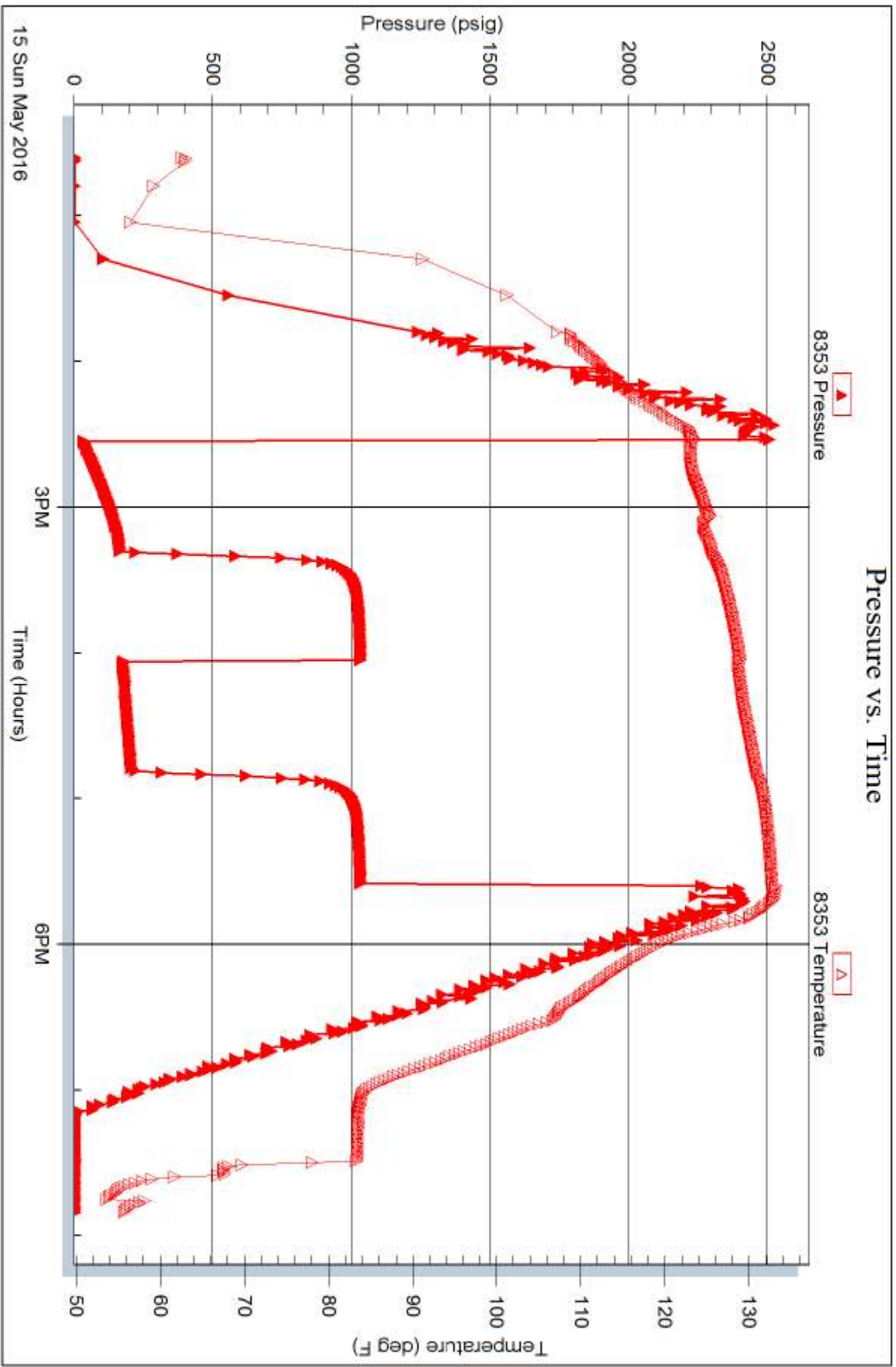


Serial #: 8353

Outside Red Oak Energy

Denes/Metcalf #1-20

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 61855

Printed: 2016.05.15 @ 22:30:35