



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration Inc
 8100 E 22d St n 700
 Wichita, KS 67278
 ATTN: John Goldsmith

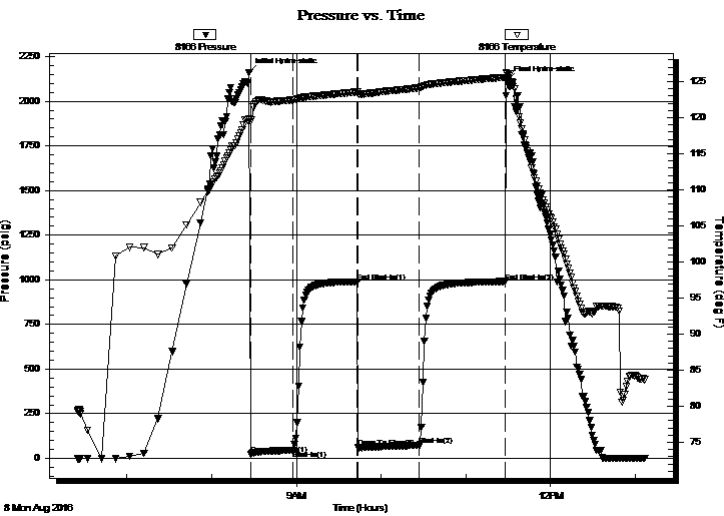
32-19s-30w Lane, KS
Anderson 32B #1
 Job Ticket: 65498 **DST#: 1**
 Test Start: 2016.08.08 @ 06:25:02

GENERAL INFORMATION:

Formation: **LKC L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:27:32
 Time Test Ended: 13:06:32
 Interval: **4310.00 ft (KB) To 4344.00 ft (KB) (TVD)**
 Total Depth: 4344.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 2934.00 ft (KB)
 2929.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8166 Outside
 Press@RunDepth: 73.90 psig @ 4311.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2016.08.08 End Date: 2016.08.08 Last Calib.: 2016.08.08
 Start Time: 06:25:07 End Time: 13:06:31 Time On Btm: 2016.08.08 @ 08:26:32
 Time Off Btm: 2016.08.08 @ 11:29:02

TEST COMMENT: IF: 1/4 blow built to 5 in 30 min.
 IS: No return.
 FF: Surface blow built to 1 1/4 in 45 min.
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2161.16	119.79	Initial Hydro-static
1	20.61	119.46	Open To Flow (1)
31	46.12	122.46	Shut-In(1)
77	989.39	123.57	End Shut-In(1)
77	60.73	123.31	Open To Flow (2)
121	73.90	124.15	Shut-In(2)
181	990.53	125.59	End Shut-In(2)
183	2117.57	126.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	ocmw 5%o 65%w 30%m	0.30
60.00	ocm 10%o 90%m	0.30
30.00	oil 100%o	0.42

Gas Rates

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



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FLUID SUMMARY

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32-19s-30w Lane, KS

8100 E 22d St n 700
Wichita, KS 67278

Anderson 32B #1

Job Ticket: 65498

DST#: 1

ATTN: John Goldsmith

Test Start: 2016.08.08 @ 06:25:02

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

23 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

13000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	ocmw 5%o 65%w 30%m	0.295
60.00	ocm 10%o 90%m	0.295
30.00	oil 100%o	0.421

Total Length: 150.00 ft Total Volume: 1.011 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

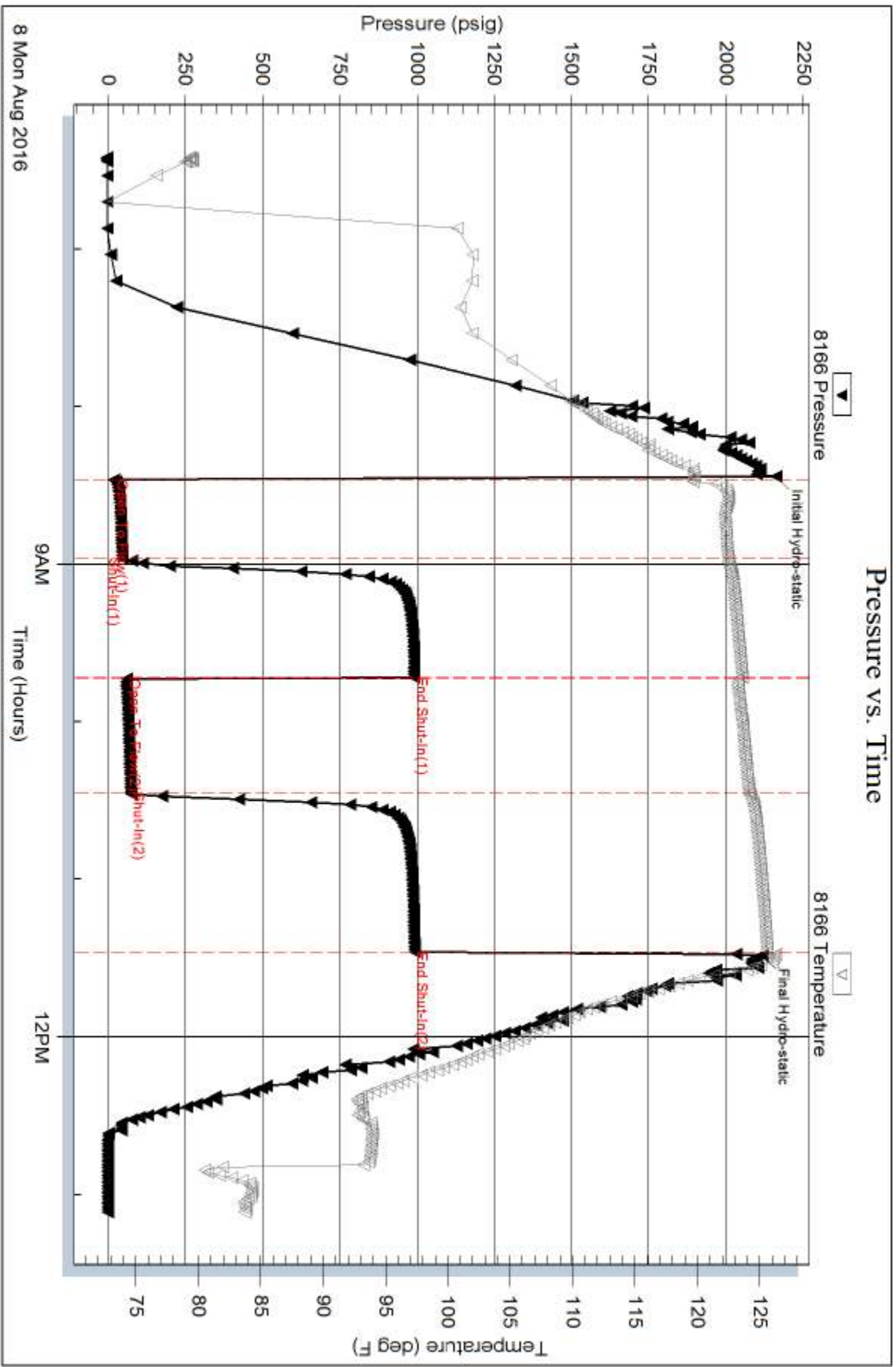
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 25@80=23

.47@79=13000



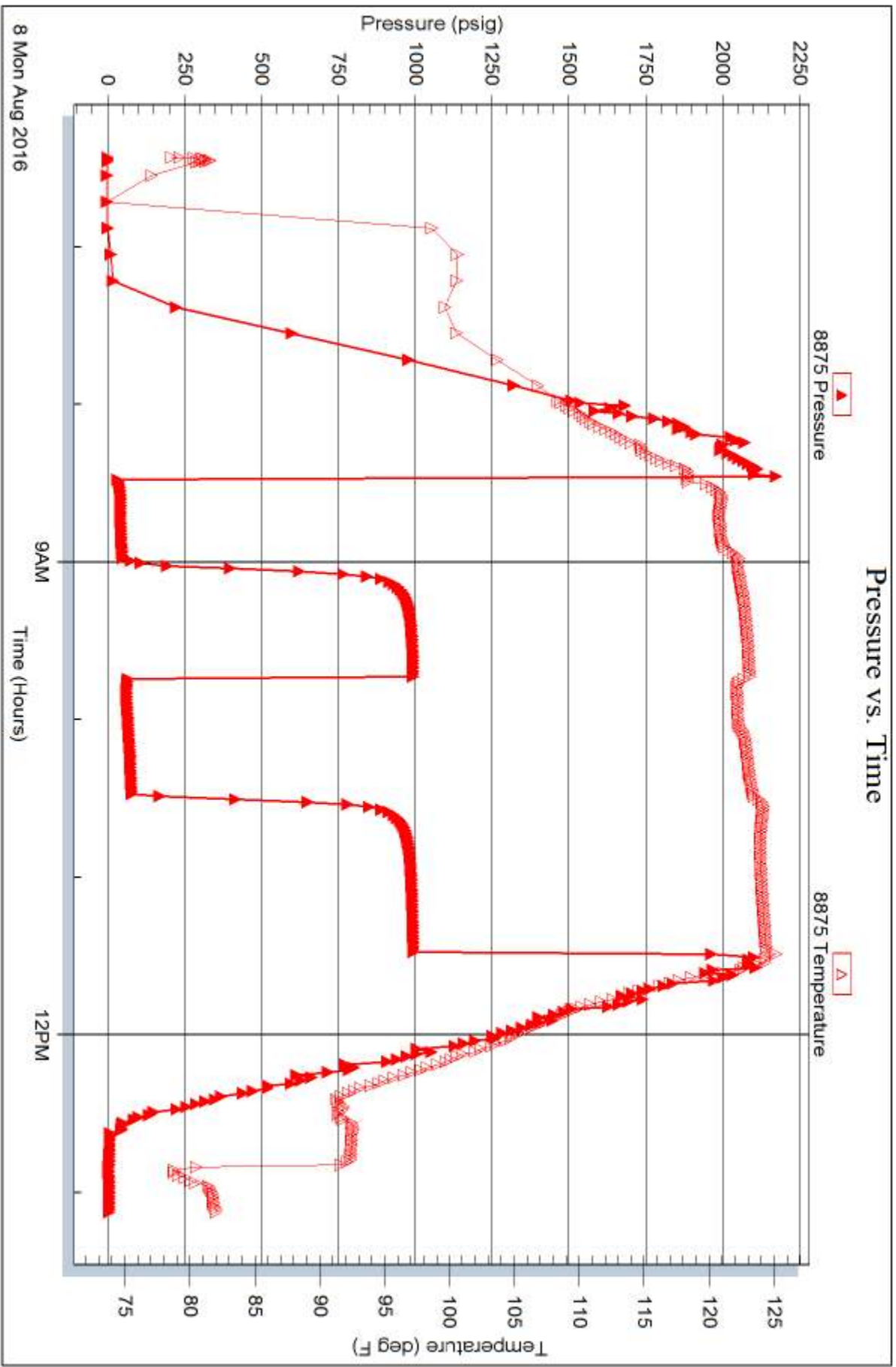
Serial #: 8875

Inside

Richie Exploration Inc

Anderson 32B #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 65498

Printed: 2016.08.08 @ 14:05:48