



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Val Energy INC
125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
Job Ticket: 64367 **DST#: 1**
Test Start: 2019.08.10 @ 19:17:00

GENERAL INFORMATION:

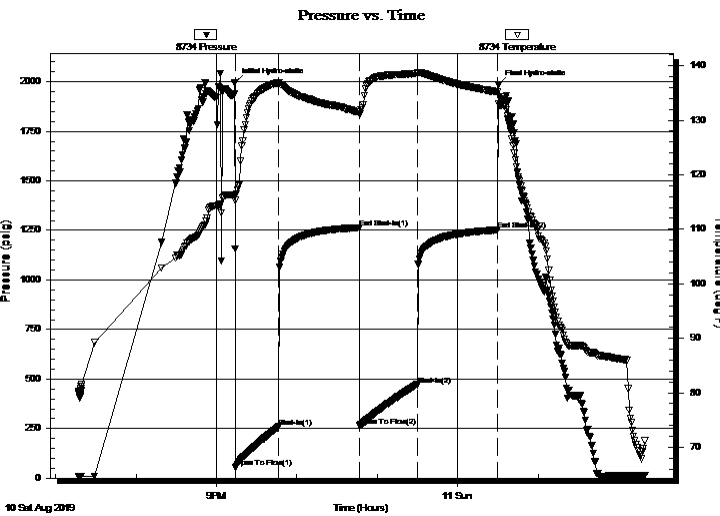
Formation: **Lansing " A - B "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:14:00
Time Test Ended: 02:20:00
Interval: **4205.00 ft (KB) To 4250.00 ft (KB) (TVD)**
Total Depth: 4250.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Reference Elevations: 3427.00 ft (KB)
3422.00 ft (CF)
KB to GR/CF: 5.00 ft
Test Type: Conventional Bottom Hole (Initial)
Tester: Martine Salinas
Unit No: 82

Serial #: 8734

Outside

Press@RunDepth: 471.40 psig @ 4206.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.08.10 End Date: 2019.08.11 Last Calib.: 2019.08.11
Start Time: 19:17:01 End Time: 02:20:00 Time On Btm: 2019.08.10 @ 21:13:40
Time Off Btm: 2019.08.11 @ 00:30:30

TEST COMMENT: 30-IF-1" blow built to B.O.B (11 inches) @ 9 mins (blow increased to 30")
60-ISI-No blow back
45-FF-S.blow built to B.O.B (11 inches) @ 13 mins (blow increased to 37 1/2")
60-FSI-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1995.00	116.01	Initial Hydro-static
1	55.32	115.34	Open To Flow (1)
33	257.08	136.84	Shut-In(1)
93	1264.15	131.50	End Shut-In(1)
94	263.60	131.14	Open To Flow (2)
136	471.40	138.59	Shut-In(2)
197	1252.31	135.19	End Shut-In(2)
197	1983.25	132.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
835.00	MSW 2%M, 98%W	10.52
100.00	MW 18%M, 82%W	1.40
20.00	100% Mud	0.28

Gas Rates

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



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ATTN: Tim Priest

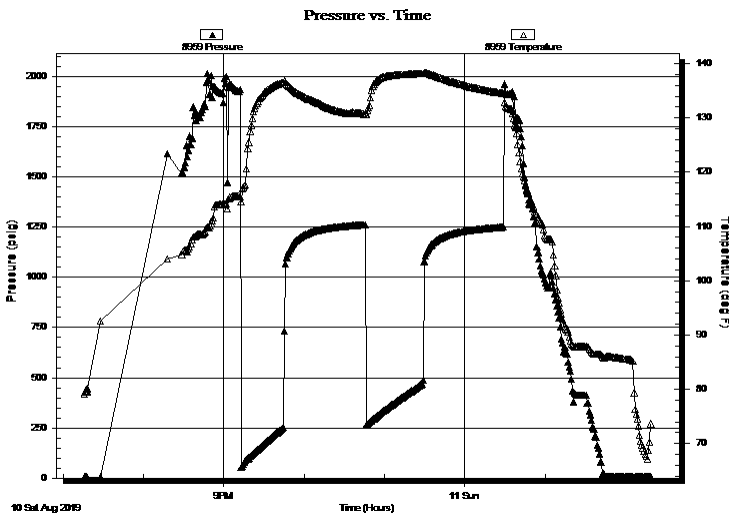
12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
Job Ticket: 64367 **DST#: 1**
Test Start: 2019.08.10 @ 19:17:00

GENERAL INFORMATION:

Formation: Lansing " A - B "	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: ft (KB)	Tester: Martine Salinas
Time Tool Opened: 21:14:00	Unit No: 82
Time Test Ended: 02:20:00	Reference Elevations: 3427.00 ft (KB)
Interval: 4205.00 ft (KB) To 4250.00 ft (KB) (TVD)	3422.00 ft (CF)
Total Depth: 4250.00 ft (KB) (TVD)	KB to GR/CF: 5.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Good

Serial #: 8959	Inside		
Press@RunDepth: psig @ 4206.00 ft (KB)	Capacity: 8000.00 psig		
Start Date: 2019.08.10	End Date: 2019.08.11	Last Calib.: 2019.08.11	
Start Time: 19:16:01	End Time: 02:19:00	Time On Btm:	Time Off Btm:

TEST COMMENT: 30-IF-1" blow built to B.O.B (11 inches) @ 9 mins (blow increased to 30")
60-ISI-No blow back
45-FF-S.blow built to B.O.B (11 inches) @ 13 mins (blow increased to 37 1/2")
60-FSI-No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
835.00	MSW 2%M, 98%W	10.52
100.00	MW 18%M, 82%W	1.40
20.00	100% Mud	0.28

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy INC

12- 8S.- 37W. Sherman,KS

125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

V1- 12 Lehman

Job Ticket: 64367

DST#: 1

Test Start: 2019.08.10 @ 19:17:00

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: 120000 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 22000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
835.00	MSW 2%M, 98%W	10.520
100.00	MW 18%M, 82%W	1.403
20.00	100% Mud	0.281

Total Length: 955.00 ft Total Volume: 12.204 bbl

Num Fluid Samples: 0

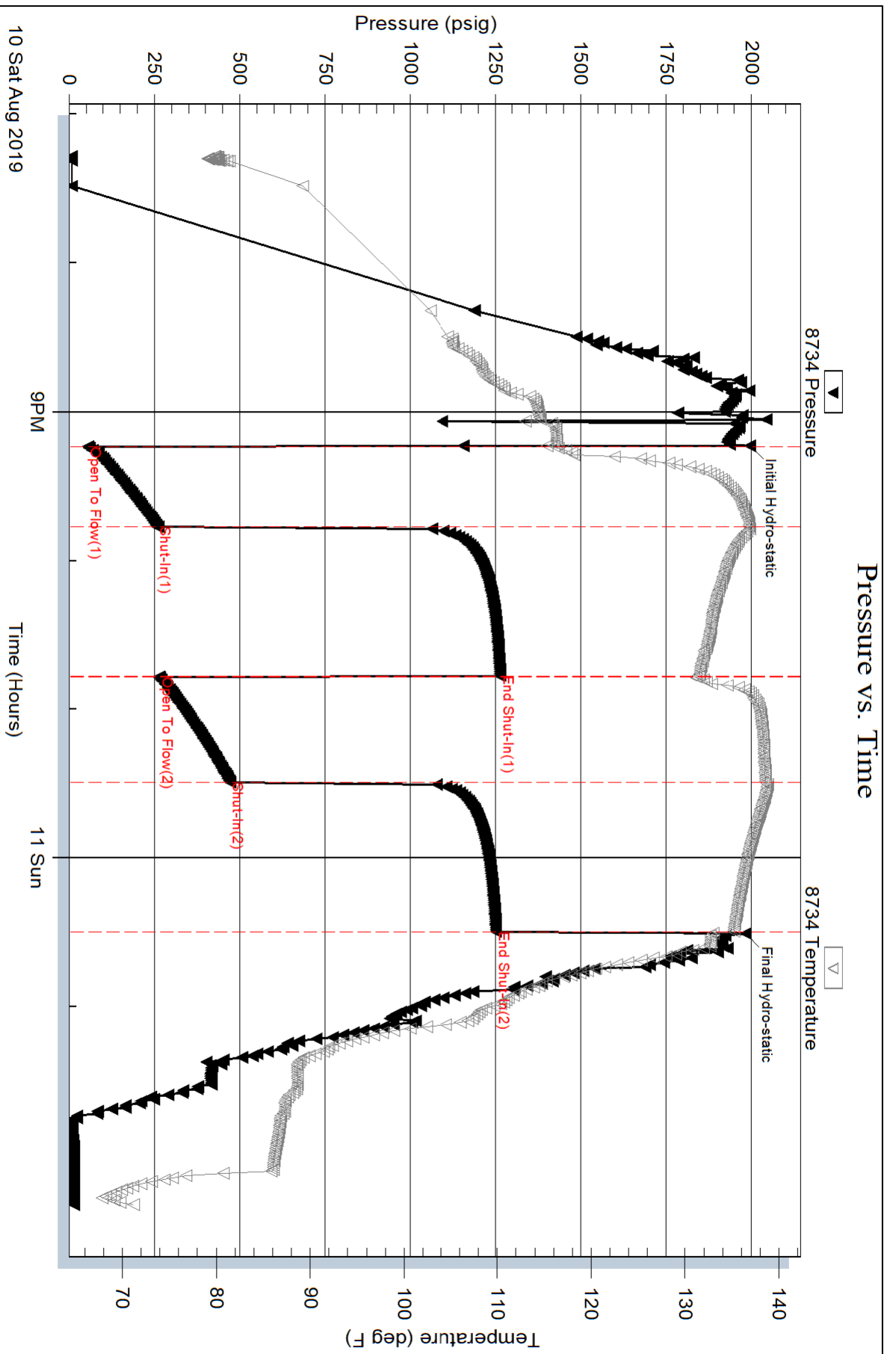
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .079 @ 65 degs = 120,000 PPM



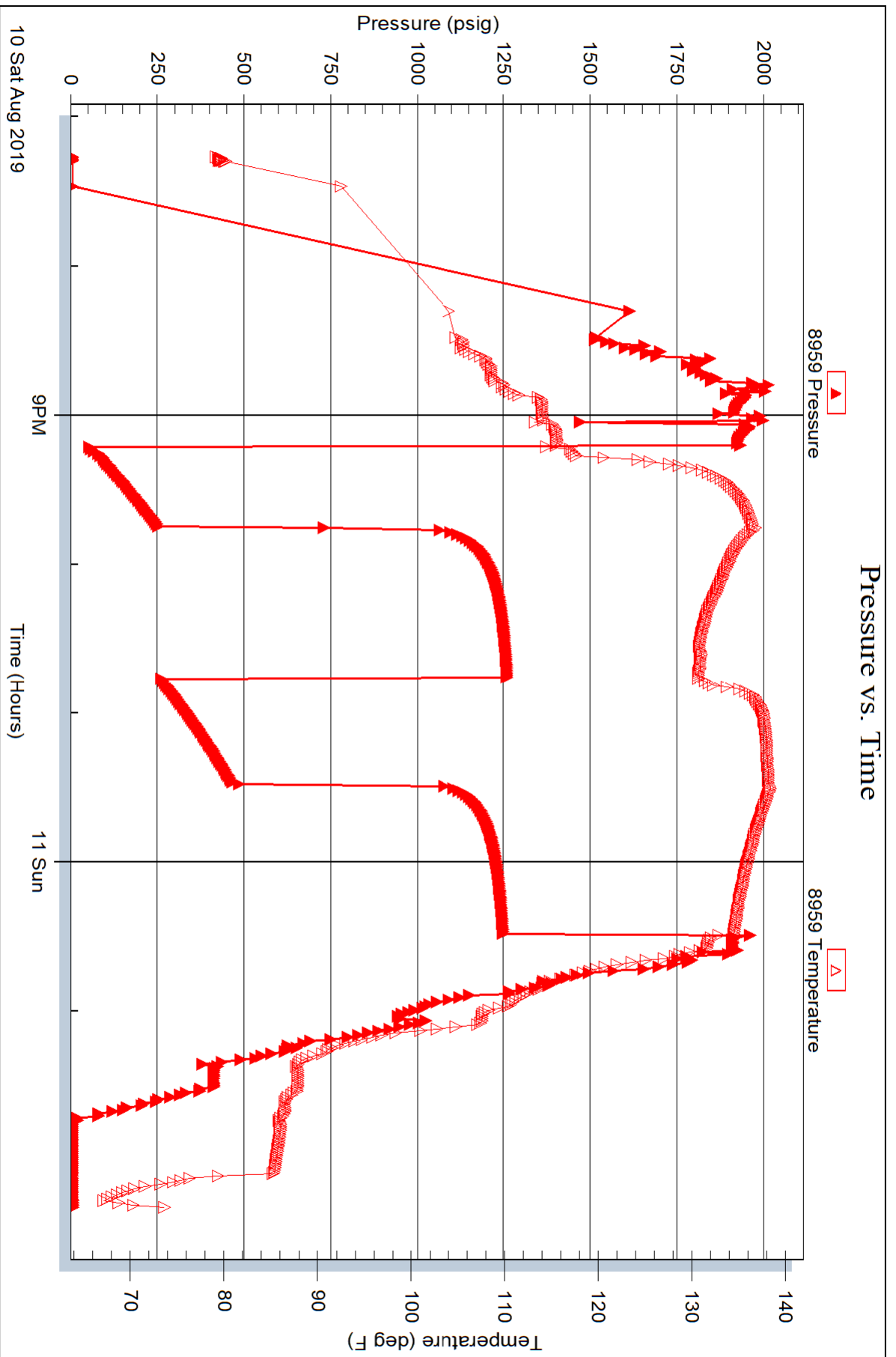
Serial #: 8959

Inside

Val Energy INC

V1- 12 Lehman

DST Test Number: 1





**TRILOBITE
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DRILL STEM TEST REPORT

Val Energy INC
125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
Job Ticket: 64368 **DST#: 2**
Test Start: 2019.08.11 @ 09:52:00

GENERAL INFORMATION:

Formation: **Lansing " D - F "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:34:30
Time Test Ended: 16:40:30
Interval: **4262.00 ft (KB) To 4298.00 ft (KB) (TVD)**
Total Depth: 4298.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Martine Salinas
Unit No: 82
Reference Elevations: 3427.00 ft (KB)
3422.00 ft (CF)
KB to GR/CF: 5.00 ft

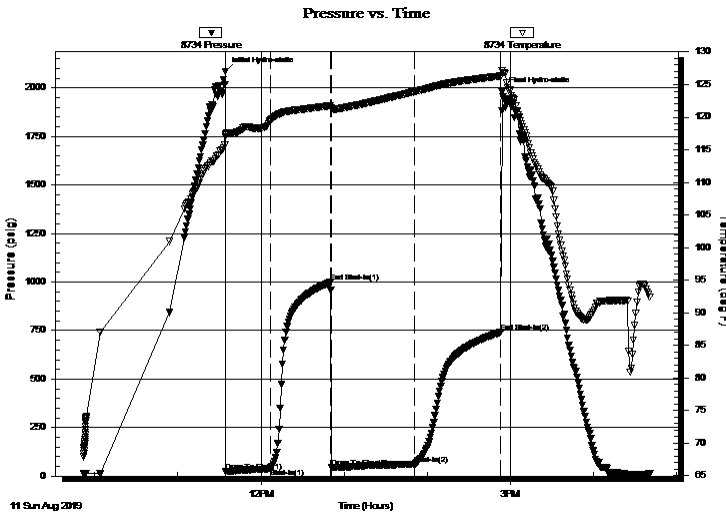
Serial #: 8734

Outside

Press@RunDepth: 61.82 psig @ 4263.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.08.11 End Date: 2019.08.11 Last Calib.: 2019.08.11
Start Time: 09:52:01 End Time: 16:40:30 Time On Btm: 2019.08.11 @ 11:34:20
Time Off Btm: 2019.08.11 @ 14:54:00

TEST COMMENT: 30-IF-1/4" blow built to 2 1/2"
45-ISI-No blow back
60-FF-S.blow built to 2 1/4"
60-FSI-No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2085.11	117.30	Initial Hydro-static
1	25.00	117.02	Open To Flow (1)
33	38.74	119.40	Shut-In(1)
76	998.15	121.77	End Shut-In(1)
77	46.10	121.45	Open To Flow (2)
137	61.82	123.92	Shut-In(2)
199	740.63	126.30	End Shut-In(2)
200	1978.47	127.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	GOCM 10%G, 15%M, 75%O	0.10
100.00	CGO 17%G, 83%O	0.49

* Recovery from multiple tests

Gas Rates

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



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12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
 Job Ticket: 64368 **DST#: 2**
 Test Start: 2019.08.11 @ 09:52:00

GENERAL INFORMATION:

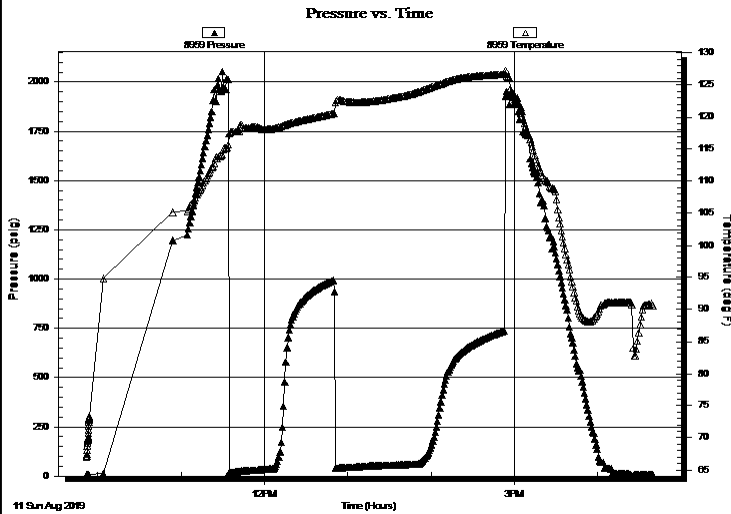
Formation: **Lansing " D - F "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:34:30
 Time Test Ended: 16:40:30
Interval: 4262.00 ft (KB) To 4298.00 ft (KB) (TVD)
 Total Depth: 4298.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Martine Salinas
 Unit No: 82
 Reference Elevations: 3427.00 ft (KB)
 3422.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8959

Inside

Press@RunDepth: psig @ 4263.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.08.11 End Date: 2019.08.11 Last Calib.: 2019.08.11
 Start Time: 09:52:01 End Time: 16:40:20 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-1/4" blow built to 2 1/2"
 45-ISI-No blow back
 60-FF-S.blow built to 2 1/4"
 60-FSI-No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	GOCM 10%G, 15%M, 75%O	0.10
100.00	CGO 17%G, 83%O	0.49

* Recovery from multiple tests

Gas Rates

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



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Val Energy INC

12- 8S.- 37W.

Sherman,KS

125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

V1- 12 Lehman

Job Ticket: 64368

DST#: 2

Test Start: 2019.08.11 @ 09:52:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31.2 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	GOCM 10%G, 15%M, 75%O	0.098
100.00	CGO 17%G, 83%O	0.492

Total Length: 120.00 ft Total Volume: 0.590 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

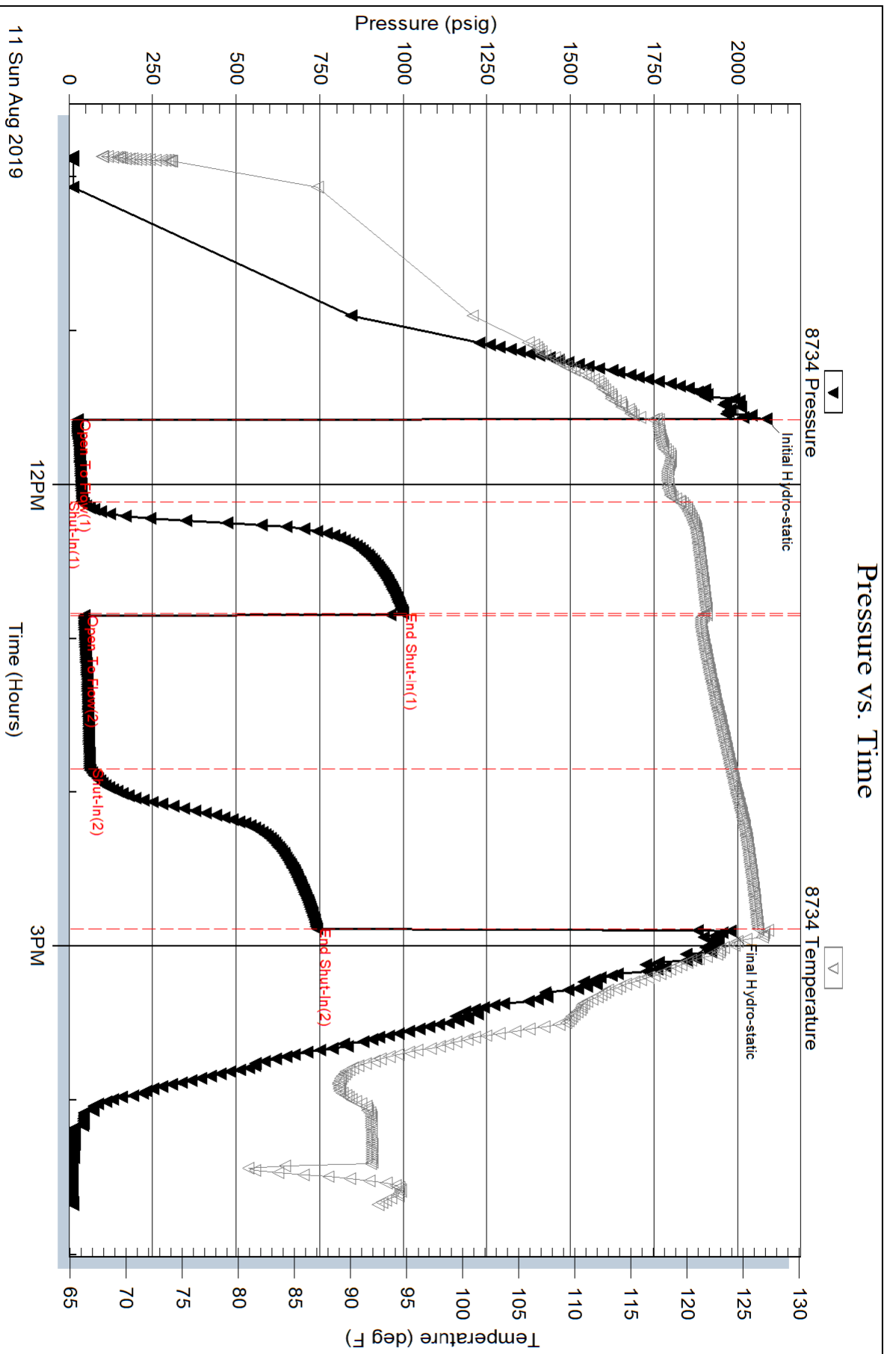
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity of oil = 34.6 @ 94 degs

Gravity corrected to 31.2 @ 60 degs



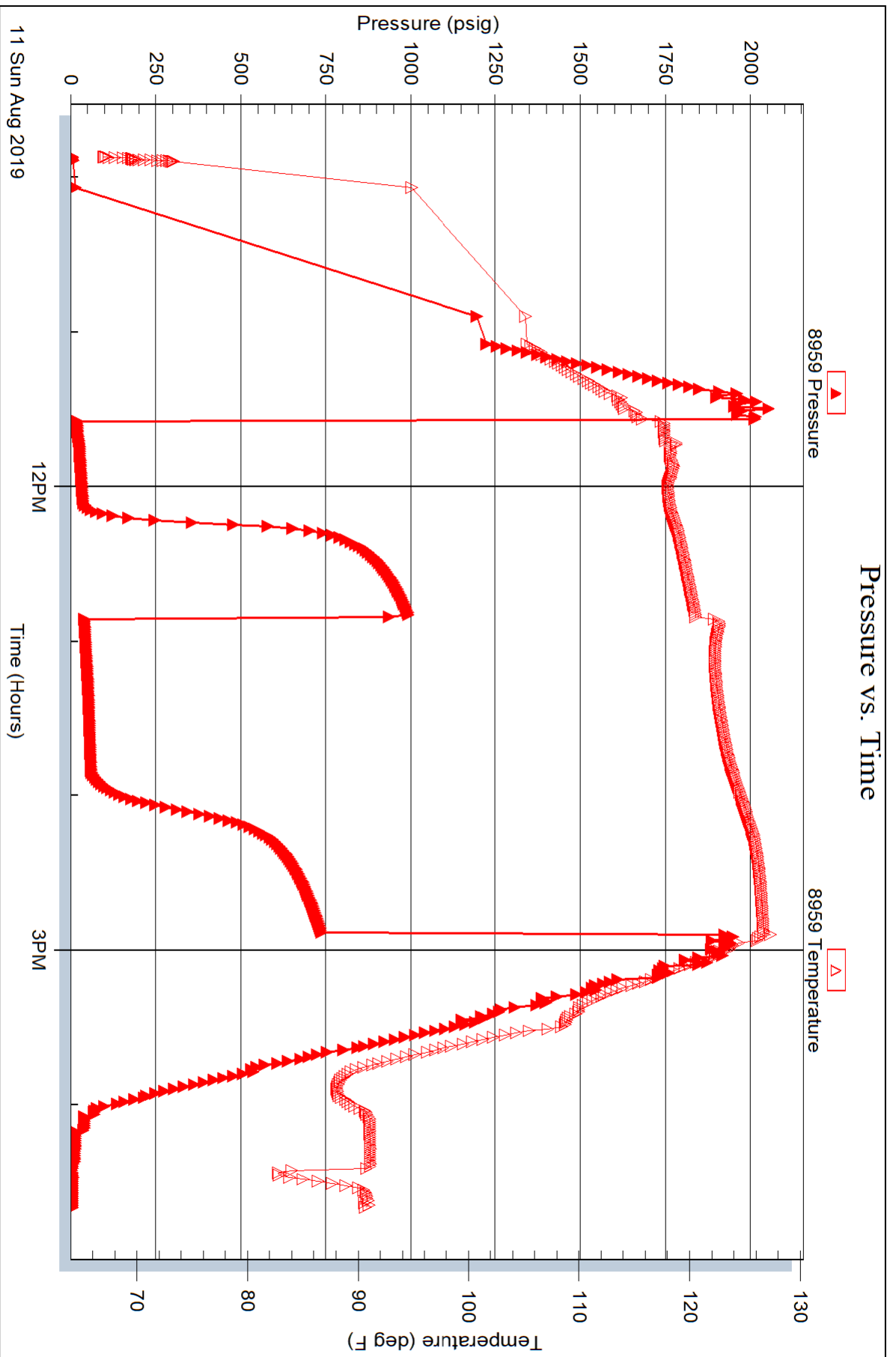
Serial #: 8959

Inside

Val Energy INC

V1-12 Lehman

DST Test Number: 2





**TRILOBITE
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DRILL STEM TEST REPORT

Val Energy INC
125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
Job Ticket: 64369 **DST#: 3**
Test Start: 2019.08.12 @ 05:32:00

GENERAL INFORMATION:

Formation: **LKC " H - J "**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 07:11:30 Tester: Martine Salinas
Time Test Ended: 10:57:50 Unit No: 82
Interval: 4347.00 ft (KB) To 4410.00 ft (KB) (TVD) Reference Elevations: 3427.00 ft (KB)
Total Depth: 4410.00 ft (KB) (TVD) 3422.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

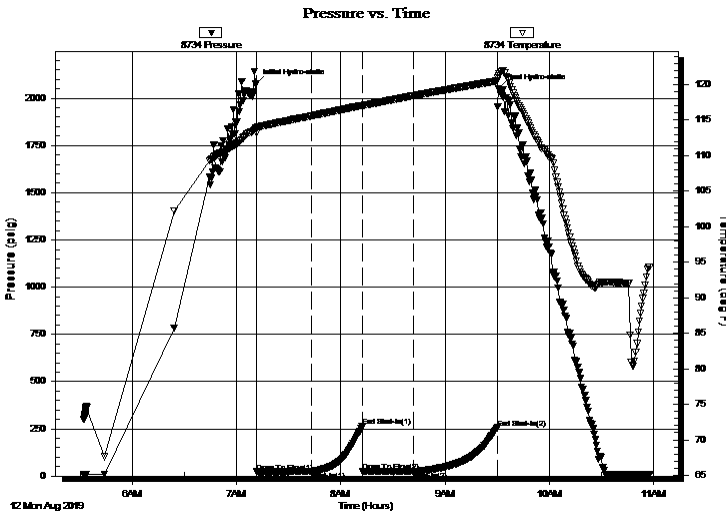
Serial #: 8734

Outside

Press@RunDepth: 25.79 psig @ 4348.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.08.12 End Date: 2019.08.12 Last Calib.: 2019.08.12
Start Time: 05:32:01 End Time: 10:57:50 Time On Btm: 2019.08.12 @ 07:11:20
Time Off Btm: 2019.08.12 @ 09:30:40

TEST COMMENT: 30-IF-S. blow built to 3/4"
30-ISI-No blow back
30-FF-No blow
45-FSI-No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2078.72	113.94	Initial Hydro-static
1	22.63	113.13	Open To Flow (1)
32	23.86	115.58	Shut-In(1)
61	261.98	117.06	End Shut-In(1)
62	26.63	116.99	Open To Flow (2)
91	25.79	118.43	Shut-In(2)
139	255.76	120.51	End Shut-In(2)
140	2051.51	121.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	OCM 10%O, 90%M	0.01
2.00	CO 100% O	0.01

* Recovery from multiple tests

Gas Rates

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



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 Wichita, KS 67202
 ATTN: Tim Priest

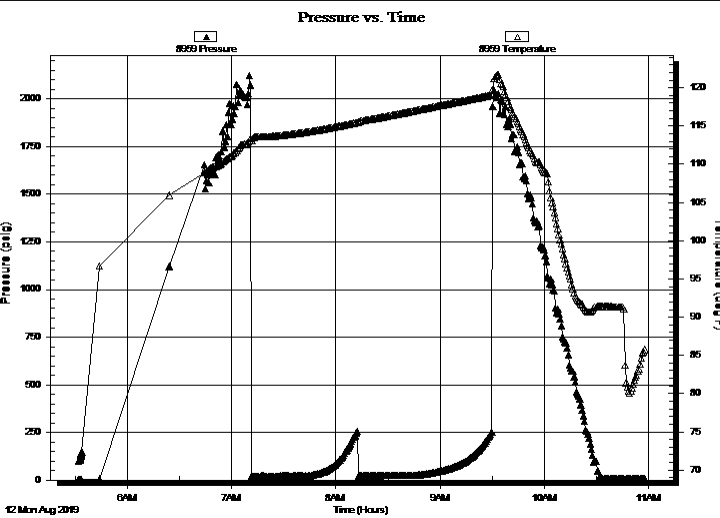
12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
 Job Ticket: 64369 **DST#: 3**
 Test Start: 2019.08.12 @ 05:32:00

GENERAL INFORMATION:

Formation: **LKC " H - J "**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 07:11:30
 Tester: Martine Salinas
 Time Test Ended: 10:57:50
 Unit No: 82
Interval: 4347.00 ft (KB) To 4410.00 ft (KB) (TVD)
 Reference Elevations: 3427.00 ft (KB)
 Total Depth: 4410.00 ft (KB) (TVD) 3422.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8959 Inside
 Press@RunDepth: psig @ 4348.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.08.12 End Date: 2019.08.12 Last Calib.: 2019.08.12
 Start Time: 05:32:01 End Time: 10:57:50 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-S. blow built to 3/4"
 30-ISI-No blow back
 30-FF-No blow
 45-FSI-No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
3.00	OCM 10%O, 90%M	0.01
2.00	CO 100% O	0.01

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy INC

12- 8S.- 37W.

Sherman,KS

125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

V1- 12 Lehman

Job Ticket: 64369

DST#: 3

Test Start: 2019.08.12 @ 05:32:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32.2 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
3.00	OCM 10%O, 90%M	0.015
2.00	CO 100% O	0.010

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

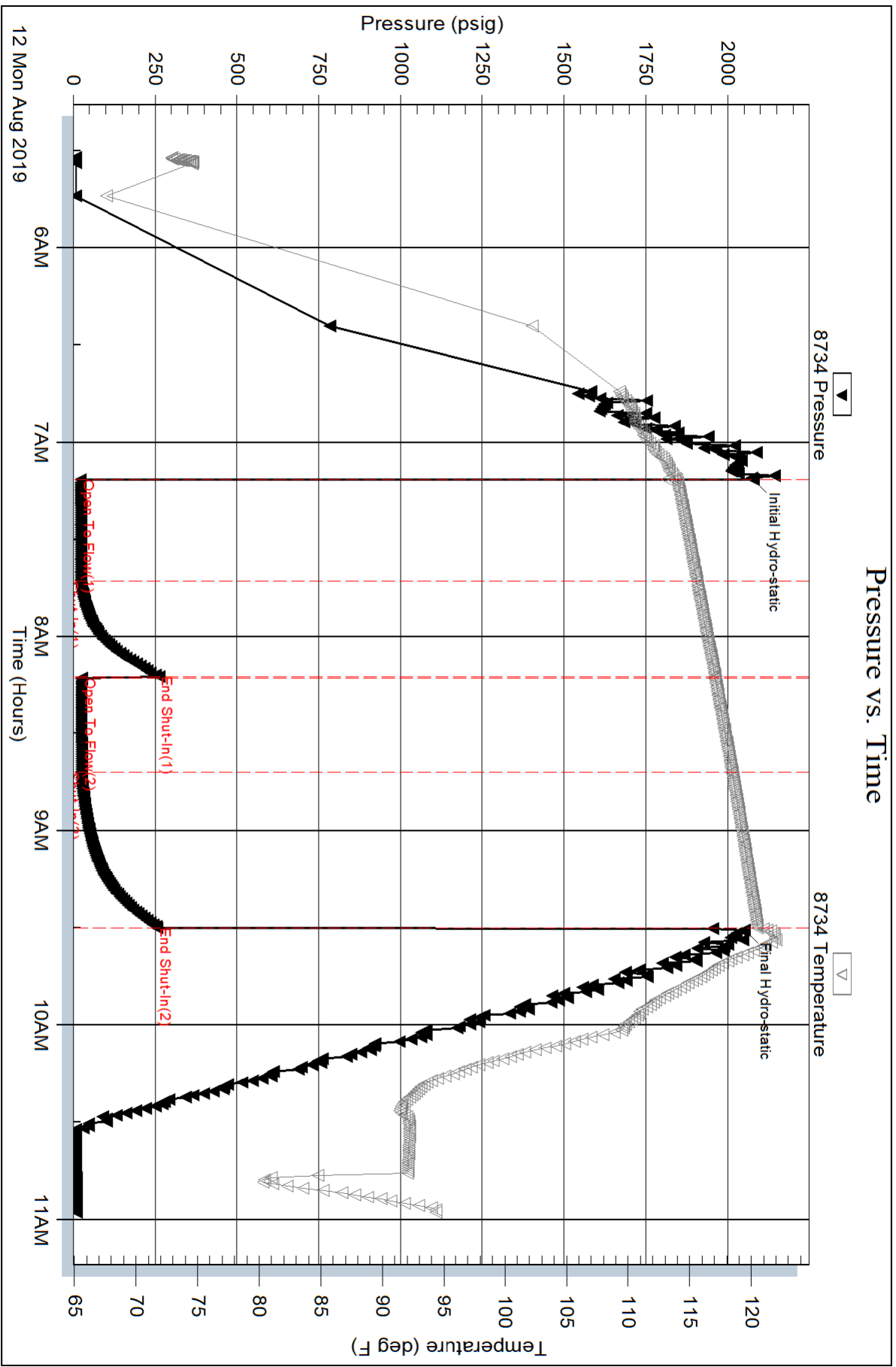
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity of oil = 35 @ 88 degs

Gravity corrected to 32.2 @ 60 degs



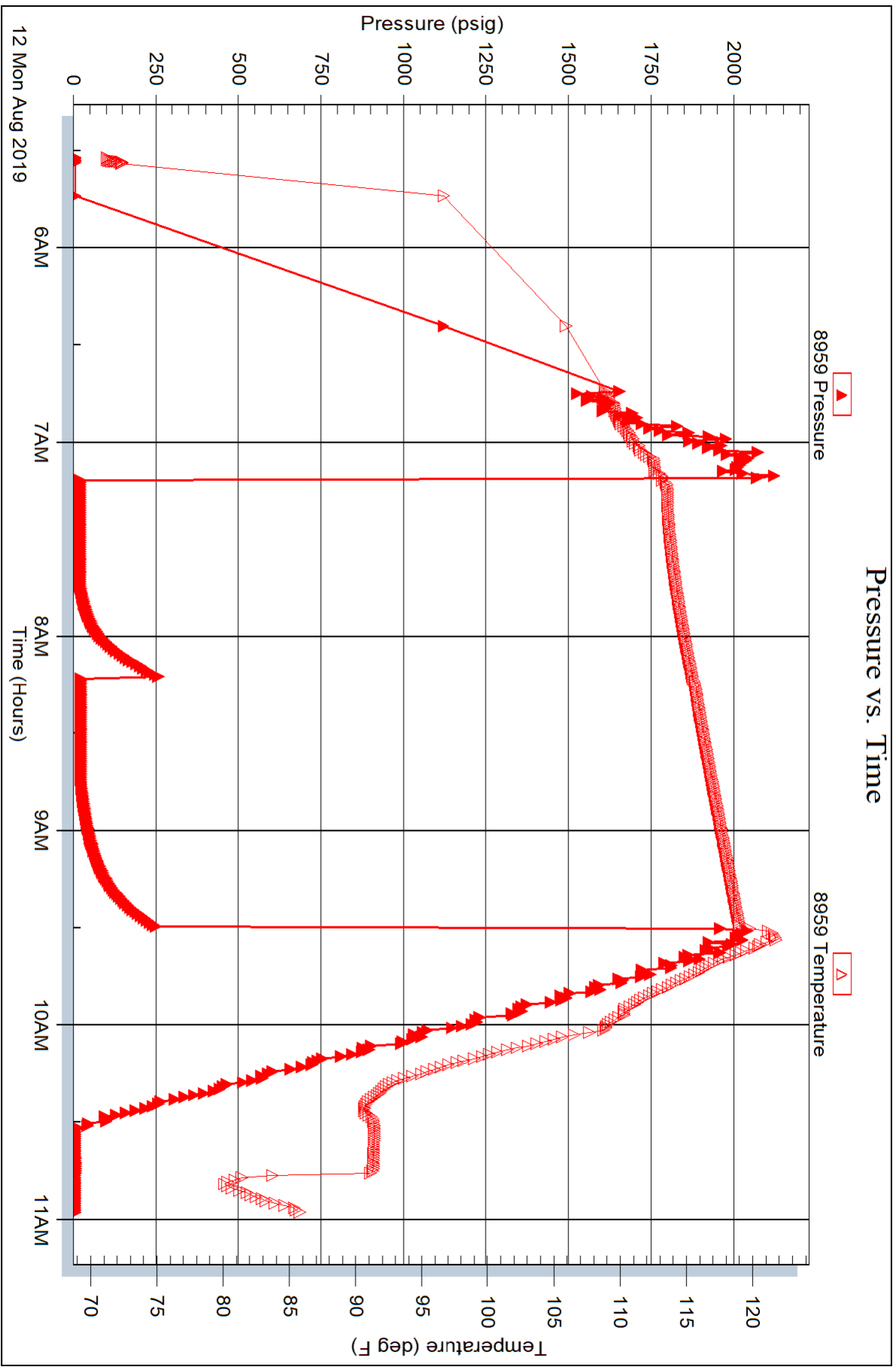
Serial #: 8959

Inside

Val Energy INC

V1-12 Lehman

DST Test Number: 3





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Val Energy INC
 125 N Market St.
 STE 1110
 Wichita, KS 67202
 ATTN: Tim Priest

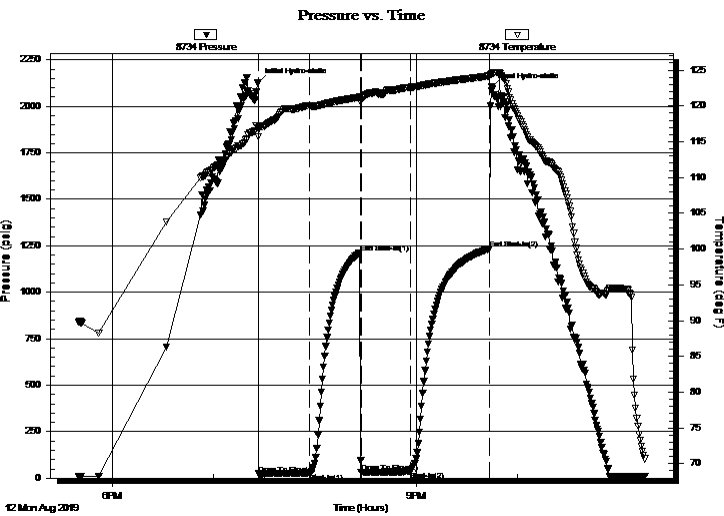
12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
 Job Ticket: 64370 **DST#: 4**
 Test Start: 2019.08.12 @ 17:40:00

GENERAL INFORMATION:

Formation: **LKC " K "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:26:20
 Time Test Ended: 23:15:30
 Interval: **4406.00 ft (KB) To 4450.00 ft (KB) (TVD)**
 Total Depth: 4450.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Martine Salinas
 Unit No: 82
 Reference Elevations: 3427.00 ft (KB)
 3422.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8734 Outside
 Press@RunDepth: 36.75 psig @ 4407.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.08.12 End Date: 2019.08.12 Last Calib.: 2019.08.12
 Start Time: 17:40:01 End Time: 23:15:30 Time On Btm: 2019.08.12 @ 19:26:10
 Time Off Btm: 2019.08.12 @ 21:44:30

TEST COMMENT: 30-IF-Weak s.blow built to 1/2" @ 20 mins and maintained blow
 30-ISI-No blow back
 30-FF-No blow
 45-FSI-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2128.85	116.90	Initial Hydro-static
1	22.56	115.66	Open To Flow (1)
31	27.56	120.03	Shut-In(1)
61	1214.19	121.24	End Shut-In(1)
61	30.14	120.90	Open To Flow (2)
90	36.75	122.60	Shut-In(2)
137	1234.84	124.19	End Shut-In(2)
139	2102.85	124.48	Final Hydro-static

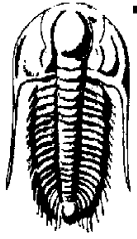
Recovery

Length (ft)	Description	Volume (bbl)
15.00	OSM 3%O, 97%M	0.07

* Recovery from multiple tests

Gas Rates

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



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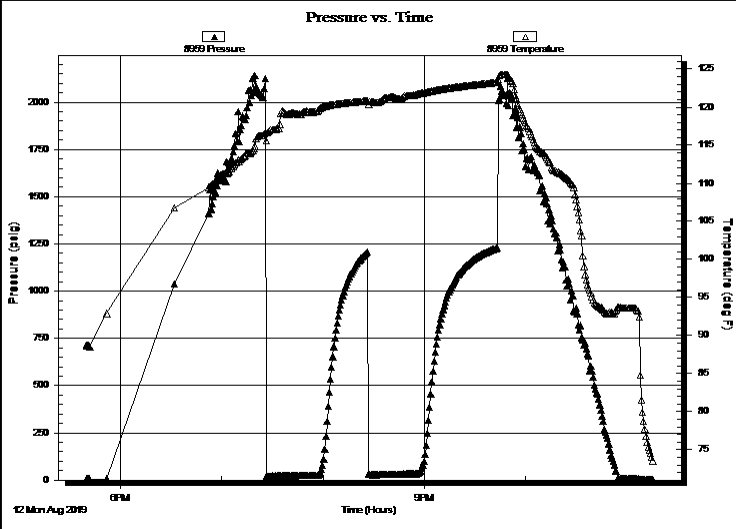
12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
 Job Ticket: 64370 **DST#: 4**
 Test Start: 2019.08.12 @ 17:40:00

GENERAL INFORMATION:

Formation: **LKC " K "**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 19:26:20 Tester: Martine Salinas
 Time Test Ended: 23:15:30 Unit No: 82
Interval: 4406.00 ft (KB) To 4450.00 ft (KB) (TVD) Reference Elevations: 3427.00 ft (KB)
 Total Depth: 4450.00 ft (KB) (TVD) 3422.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8959 Inside
 Press@RunDepth: psig @ 4407.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.08.12 End Date: 2019.08.12 Last Calib.: 2019.08.12
 Start Time: 17:40:01 End Time: 23:15:20 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Weak s.blow built to 1/2" @ 20 mins and maintained blow
 30-ISI-No blow back
 30-FF-No blow
 45-FSI-No blow back



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

Recovery		
Length (ft)	Description	Volume (bbl)
15.00	OSM 3%O, 97%M	0.07

* Recovery from multiple tests

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy INC

12- 8S.- 37W.

Sherman,KS

125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

V1- 12 Lehman

Job Ticket: 64370

DST#: 4

Test Start: 2019.08.12 @ 17:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 60.00 sec/qt

Water Loss: in³

Resistivity: ohm.m

Salinity: 6000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	OSM 3%O, 97%M	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

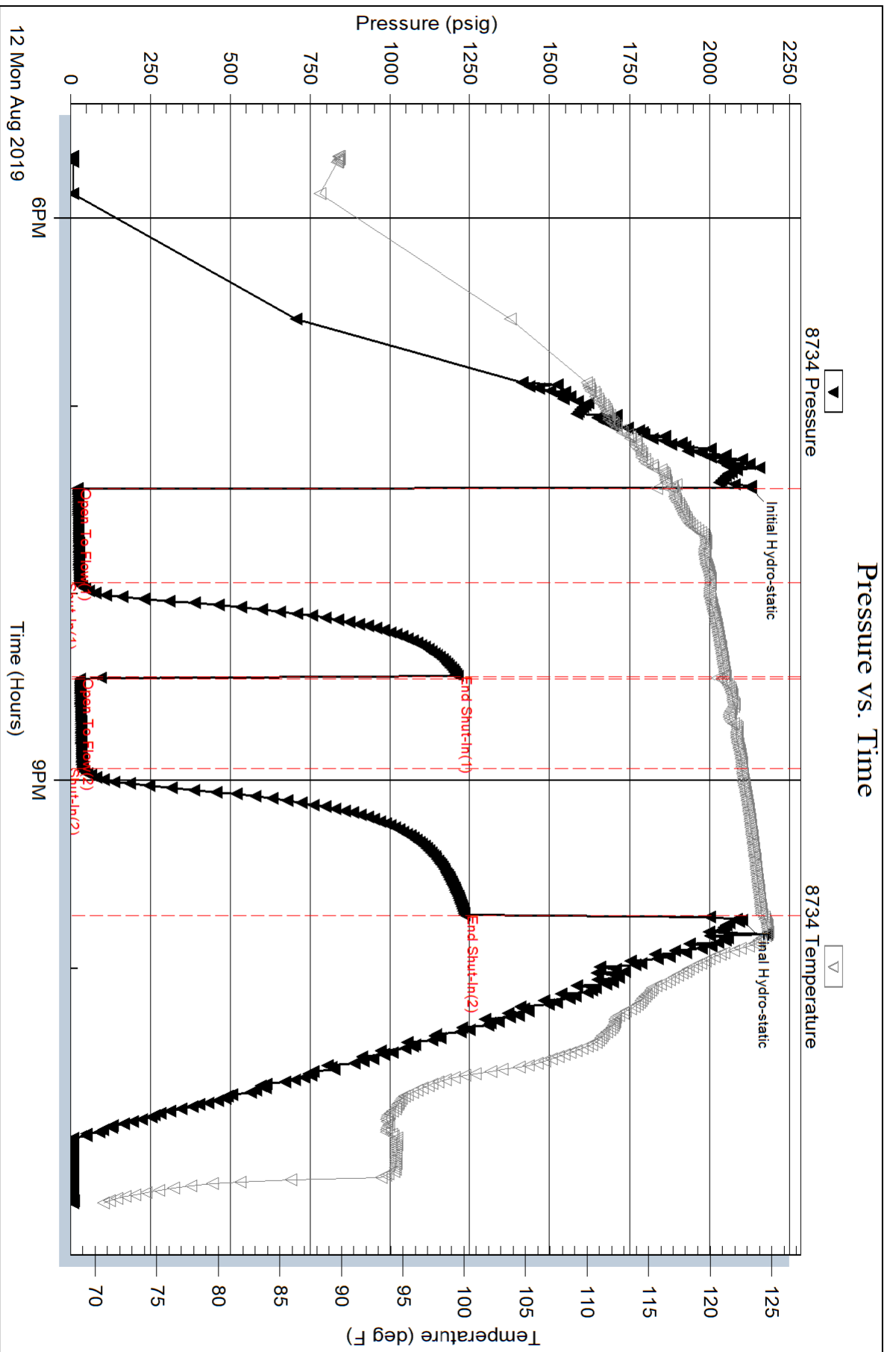
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



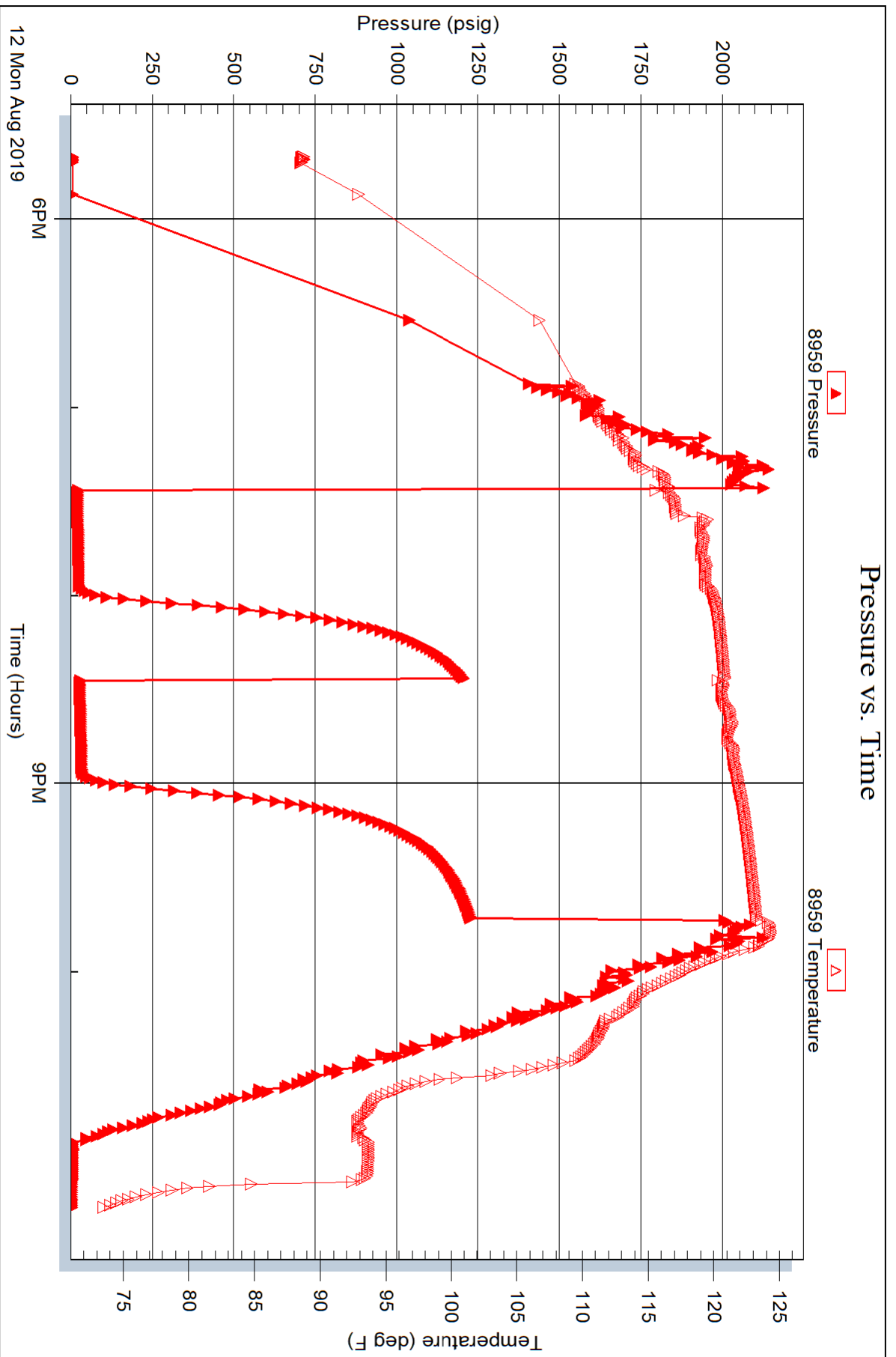
Serial #: 8959

Inside

Val Energy INC

V1-12 Lehman

DST Test Number: 4





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Val Energy INC
125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

12- 8S.- 37W. Sherman,KS
Lehman V1- 12
Job Ticket: 64371 **DST#: 5**
Test Start: 2019.08.13 @ 09:00:00

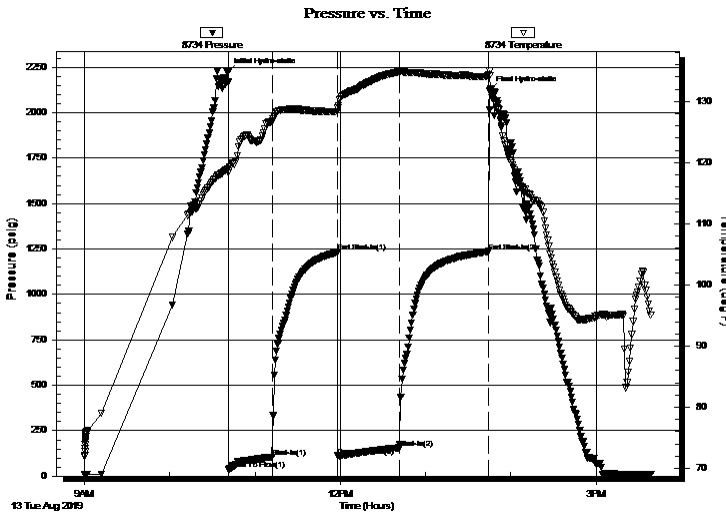
GENERAL INFORMATION:

Formation: **LKC L - Marmaton B "**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 10:41:10 Tester: Martine Salinas
Time Test Ended: 15:38:30 Unit No: 82
Interval: 4451.00 ft (KB) To 4555.00 ft (KB) (TVD) Reference Elevations: 3427.00 ft (KB)
Total Depth: 4555.00 ft (KB) (TVD) 3422.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8734 Outside
Press@RunDepth: 155.71 psig @ 4452.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.08.13 End Date: 2019.08.13 Last Calib.: 2019.08.13
Start Time: 09:00:01 End Time: 15:38:30 Time On Btm: 2019.08.13 @ 10:40:50
Time Off Btm: 2019.08.13 @ 13:45:20

TEST COMMENT: 30-IF-S.blow built to 9"
45-ISI-No blow back
45-FF-S.blow built to 9"
60-FSI-No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2219.26	118.99	Initial Hydro-static
1	36.94	118.34	Open To Flow (1)
32	105.49	126.86	Shut-In(1)
77	1231.15	128.36	End Shut-In(1)
78	111.68	128.90	Open To Flow (2)
121	155.71	134.88	Shut-In(2)
184	1236.21	134.34	End Shut-In(2)
185	2118.50	134.26	Final Hydro-static

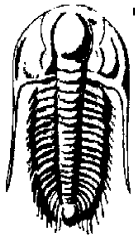
Recovery

Length (ft)	Description	Volume (bbl)
310.00	MCW w/ oil scum 25%M, 75%W	3.16

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Val Energy INC

12- 8S.- 37W. Sherman,KS

125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

Lehman V1- 12

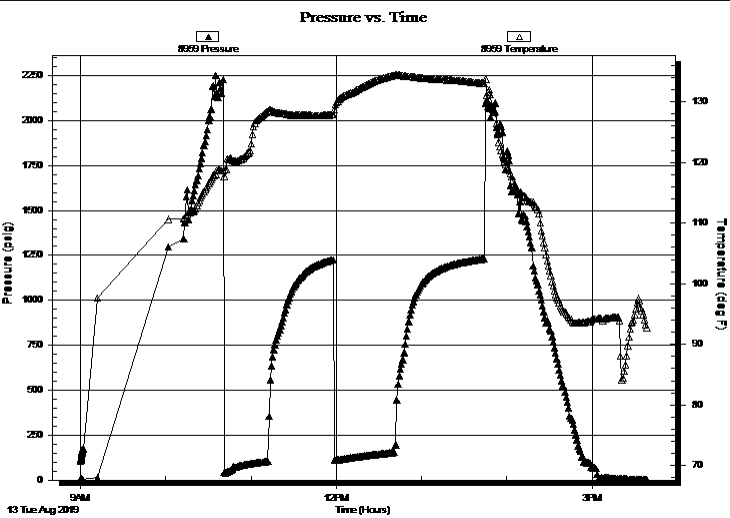
Job Ticket: 64371 **DST#: 5**
Test Start: 2019.08.13 @ 09:00:00

GENERAL INFORMATION:

Formation: **LKC L - Marmaton B "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:41:10
 Time Test Ended: 15:38:30
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Martine Salinas
 Unit No: 82
 Interval: **4451.00 ft (KB) To 4555.00 ft (KB) (TVD)**
 Total Depth: 4555.00 ft (KB) (TVD)
 Reference Elevations: 3427.00 ft (KB)
 Hole Diameter: 7.88 inches Hole Condition: Good
 KB to GR/CF: 5.00 ft
 3422.00 ft (CF)

Serial #: 8959 Inside
 Press@RunDepth: psig @ 4452.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.08.13 End Date: 2019.08.13 Last Calib.: 2019.08.13
 Start Time: 09:00:01 End Time: 15:38:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-S.blow built to 9"
 45-ISI-No blow back
 45-FF-S.blow built to 9"
 60-FSI-No blow back



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

Recovery		
Length (ft)	Description	Volume (bbl)
310.00	MCW w/ oil scum 25%M, 75%W	3.16

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy INC

12- 8S.- 37W. Sherman,KS

125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

Lehman V1- 12

Job Ticket: 64371 **DST#: 5**

Test Start: 2019.08.13 @ 09:00:00

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:	60000 ppm
Viscosity: 71.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.39 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 7000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

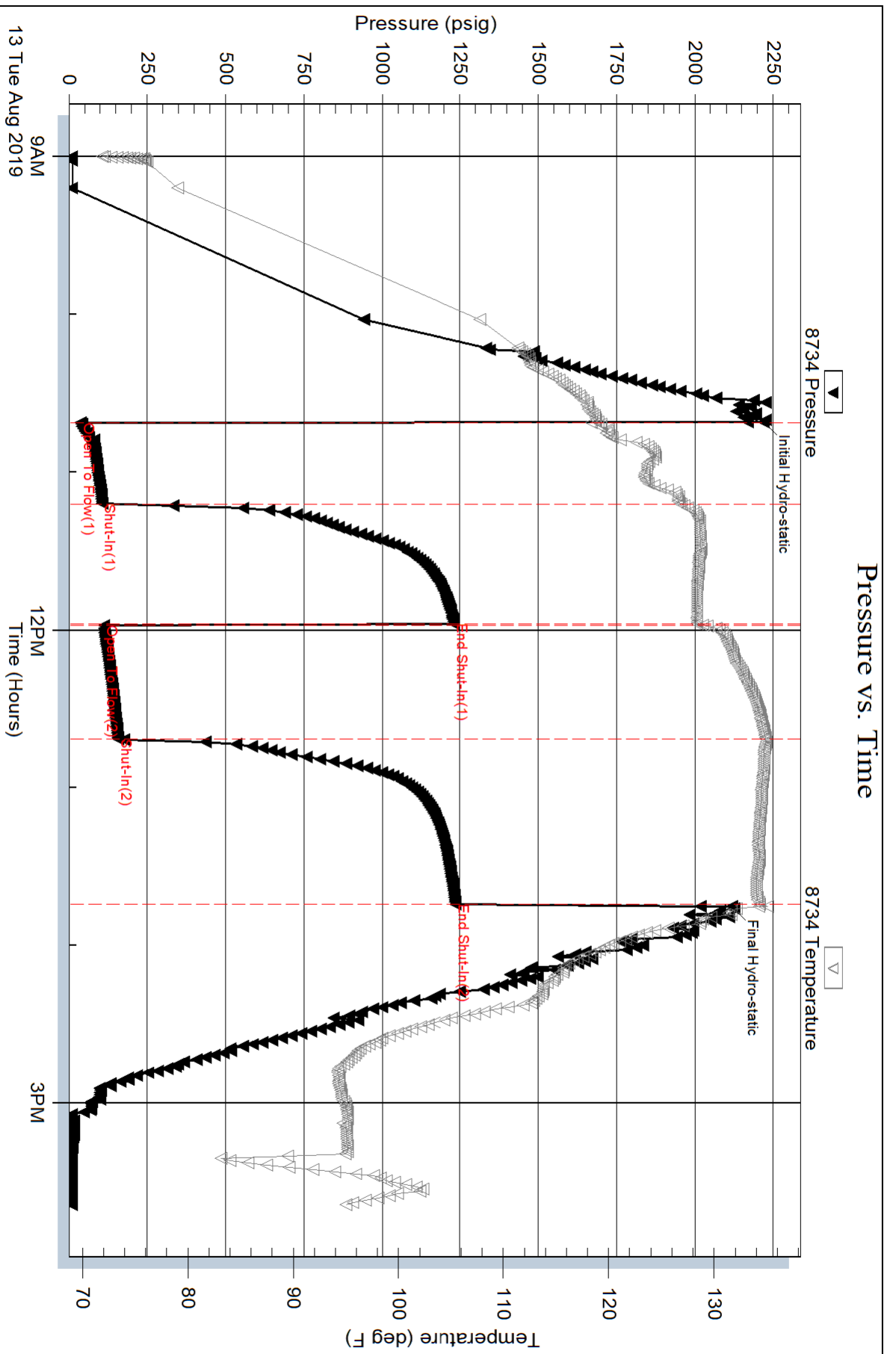
Length ft	Description	Volume bbl
310.00	MCW w / oil scum 25%M, 75%W	3.155

Total Length: 310.00 ft Total Volume: 3.155 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW= .106 @ 87.5 degs = 60,000 PPM



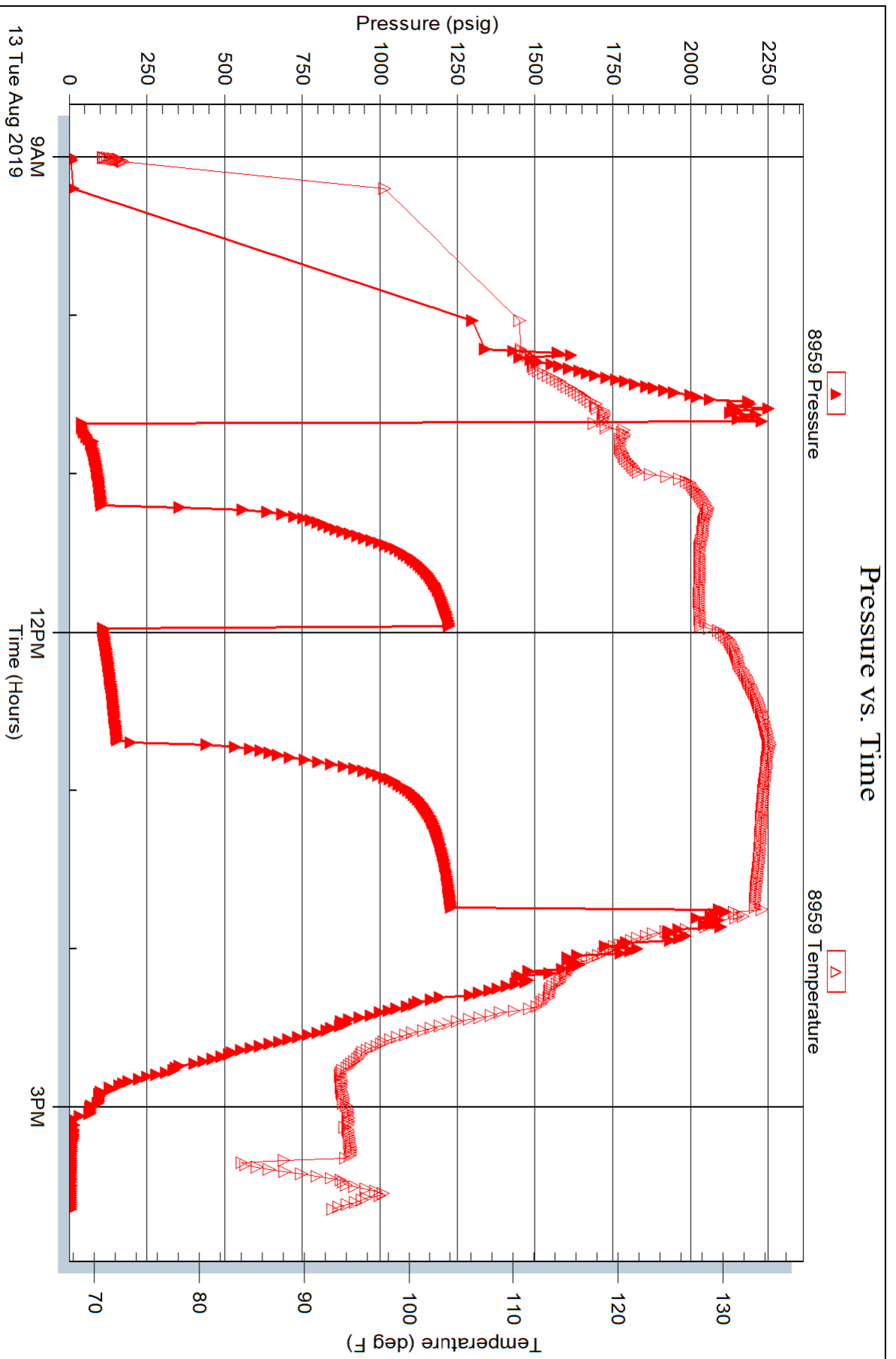
Serial #: 8959

Inside

Val Energy INC

Lehman V1- 12

DST Test Number: 5





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Val Energy INC
125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
Job Ticket: 64372 **DST#: 6**
Test Start: 2019.08.14 @ 00:24:00

GENERAL INFORMATION:

Formation: **"Marmaton "C" - Pawn**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:55:10

Time Test Ended: 05:50:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4559.00 ft (KB) To 4620.00 ft (KB) (TVD)**

Reference Elevations: 3427.00 ft (KB)

Total Depth: 4620.00 ft (KB) (TVD)

3422.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press@RunDepth: 26.01 psig @ 4560.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.08.14

End Date: 2019.08.14

Last Calib.: 2019.08.14

Start Time: 00:24:01

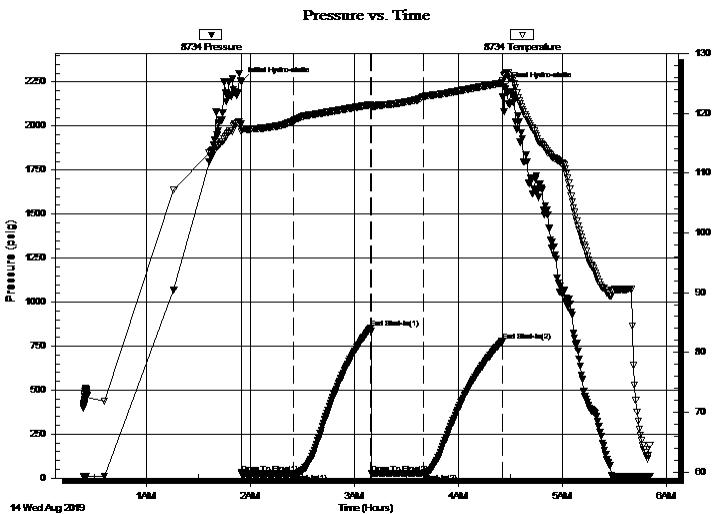
End Time: 05:50:20

Time On Btm: 2019.08.14 @ 01:54:50

Time Off Btm: 2019.08.14 @ 04:26:40

TEST COMMENT: 30-IF-S.blow built to 1"
45-ISI-S.blow back @ 7 mins built to 1/4" (Thermal Expansion)
30--FF-No blow
45-FSI-No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2249.63	118.31	Initial Hydro-static
1	25.15	117.44	Open To Flow (1)
30	25.56	118.70	Shut-In(1)
75	853.61	121.45	End Shut-In(1)
75	28.08	120.99	Open To Flow (2)
106	26.01	122.76	Shut-In(2)
151	775.71	125.04	End Shut-In(2)
152	2222.31	126.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%Mud	0.02
0.00	Oil spots in tool	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Val Energy INC

125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

12- 8S.- 37W. Sherman,KS

V1- 12 Lehman

Job Ticket: 64372 DST#: 6

Test Start: 2019.08.14 @ 00:24:00

GENERAL INFORMATION:

Formation: **"Marmaton "C" - Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:55:10

Time Test Ended: 05:50:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4559.00 ft (KB) To 4620.00 ft (KB) (TVD)**

Total Depth: 4620.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3427.00 ft (KB)

3422.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8959

Inside

Press@RunDepth: psig @ 4560.00 ft (KB)

Start Date: 2019.08.14

End Date: 2019.08.14

Start Time: 00:24:01

End Time: 05:50:10

Capacity: 8000.00 psig

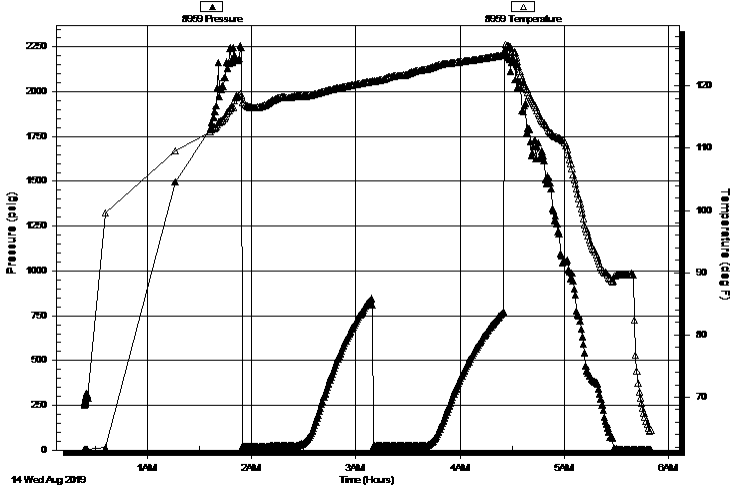
Last Calib.: 2019.08.14

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-S.blow built to 1"
45-ISI-S.blow back @ 7 mins built to 1/4" (Thermal Expansion)
30--FF-No blow
45-FSI-No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%Mud	0.02
0.00	Oil spots in tool	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

Val Energy INC

12- 8S.- 37W.

Sherman,KS

125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

V1- 12 Lehman

Job Ticket: 64372

DST#: 6

Test Start: 2019.08.14 @ 00:24:00

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: 57.00 sec/qt

Cushion Volume:

bbf

Water Loss: 10.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	100%Mud	0.025
0.00	Oil spots in tool	0.000

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

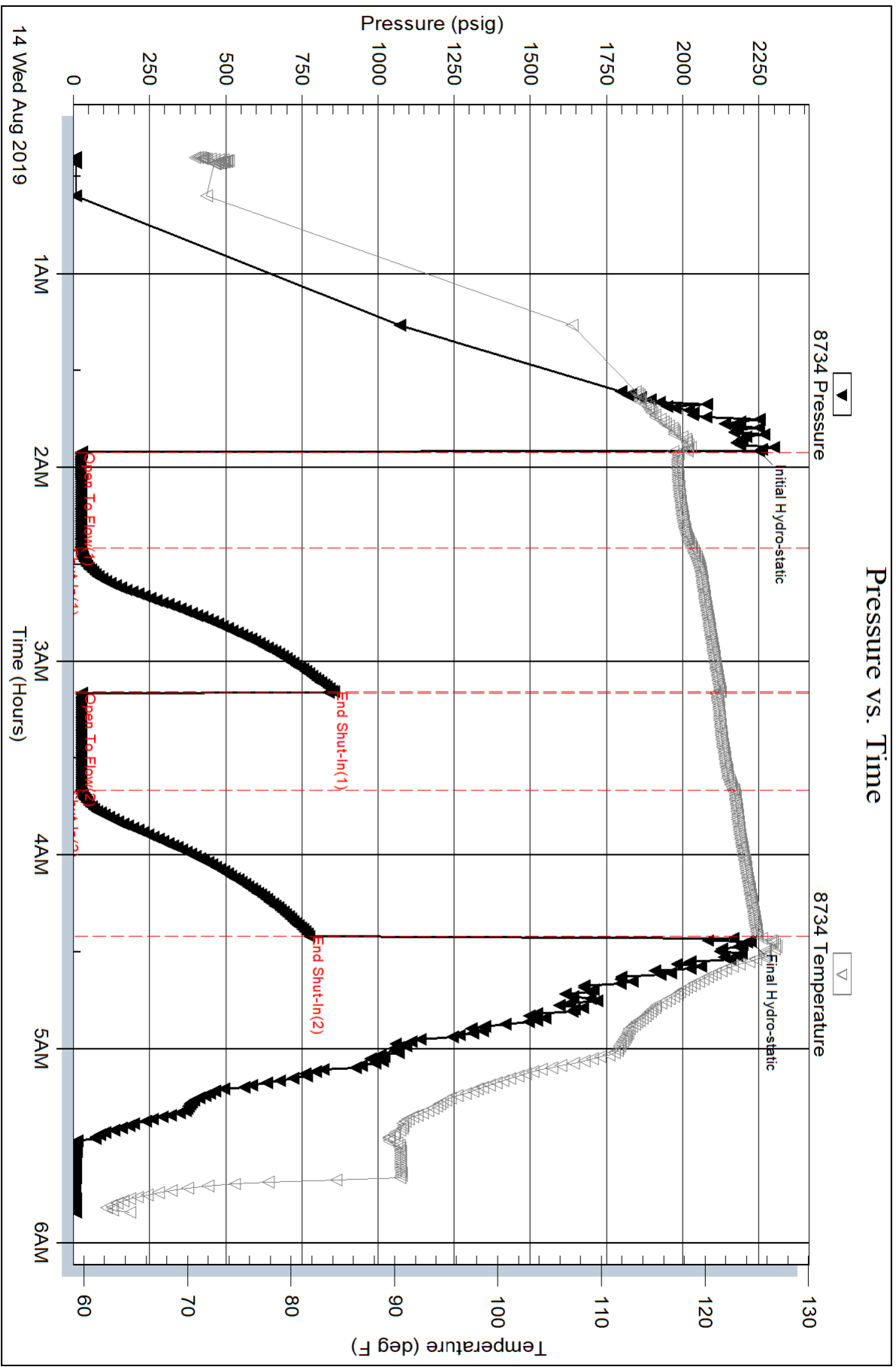
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



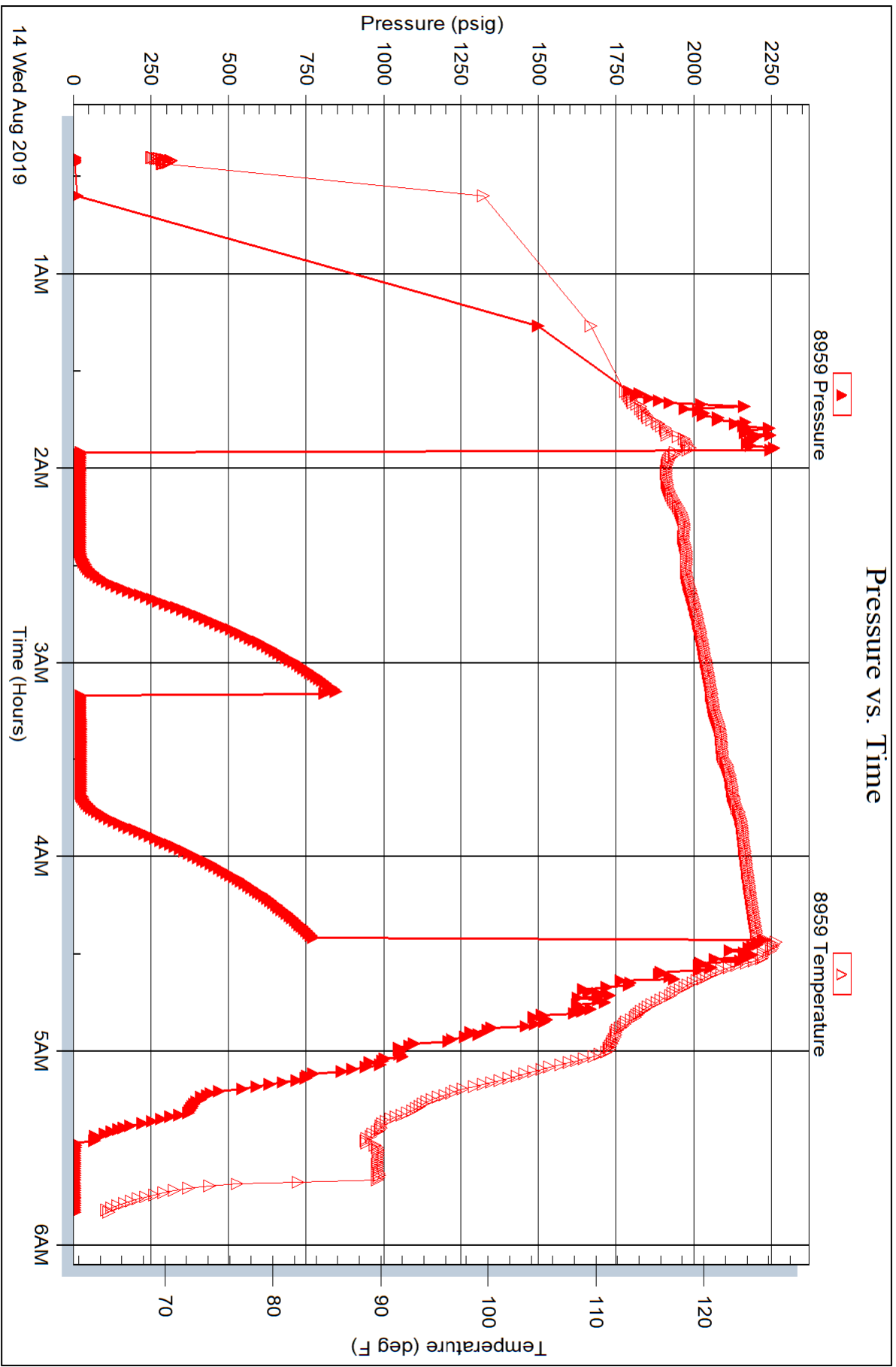
Serial #: 8959

Inside

Val Energy INC

V1-12 Lehman

DST Test Number: 6





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Val Energy INC
125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
Job Ticket: 64373 **DST#: 7**
Test Start: 2019.08.14 @ 15:55:00

GENERAL INFORMATION:

Formation: **Myric Station- Chero**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:45:10

Time Test Ended: 23:11:09

Interval: 4619.00 ft (KB) To 4710.00 ft (KB) (TVD)

Total Depth: 4710.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Reference Elevations: 3427.00 ft (KB)

3422.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press@RunDepth: 152.45 psig @ 4620.00 ft (KB)

Start Date: 2019.08.14

End Date: 2019.08.14

Start Time: 15:55:01

End Time: 23:11:10

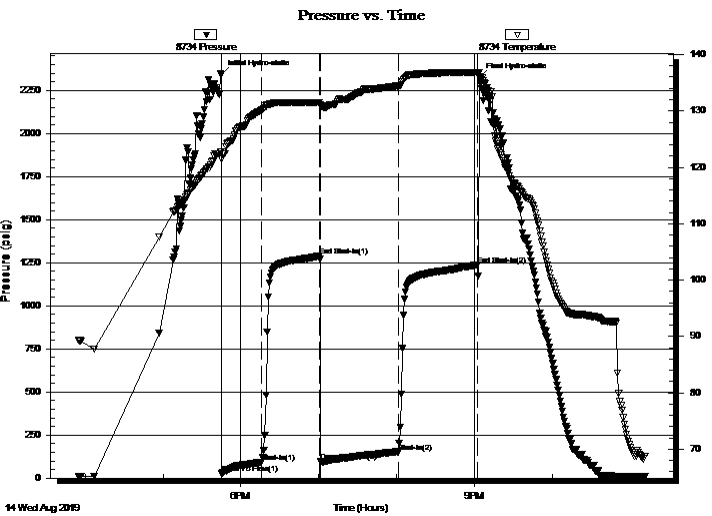
Capacity: 8000.00 psig

Last Calib.: 2019.08.14

Time On Btm: 2019.08.14 @ 17:45:00

Time Off Btm: 2019.08.14 @ 21:03:30

TEST COMMENT: 30-IF-S.blow built to B.O.B (11 inches) @ 24 mins (blow increased to 14 1/2")
45-ISI-S.blow back @ 4 mins built to 1/4" @ 7 mins dead @ 32 mins
60-FF-S.blow built to B.O.B (1 inches) @ 24 mins (blow increased to 26 1/2")
60-FSI-S.blow back built to 3"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2343.12	122.71	Initial Hydro-static
1	25.03	121.43	Open To Flow (1)
31	91.72	130.14	Shut-In(1)
76	1288.98	131.49	End Shut-In(1)
77	96.72	131.02	Open To Flow (2)
136	152.45	134.43	Shut-In(2)
198	1236.80	136.83	End Shut-In(2)
199	2320.98	136.77	Final Hydro-static

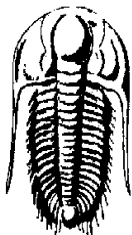
Recovery

Length (ft)	Description	Volume (bbl)
330.00	GMCO 33%G, 23%M, 44%O	3.44
0.00	180' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Val Energy INC
 125 N Market St.
 STE 1110
 Wichita, KS 67202
 ATTN: Tim Priest

12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
 Job Ticket: 64373 **DST#: 7**
 Test Start: 2019.08.14 @ 15:55:00

GENERAL INFORMATION:

Formation: **Myric Station- Chero**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:45:10

Time Test Ended: 23:11:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: 4619.00 ft (KB) To 4710.00 ft (KB) (TVD)

Reference Elevations: 3427.00 ft (KB)

Total Depth: 4710.00 ft (KB) (TVD)

3422.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8959 **Inside**

Press@RunDepth: psig @ 4620.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.08.14 End Date: 2019.08.14

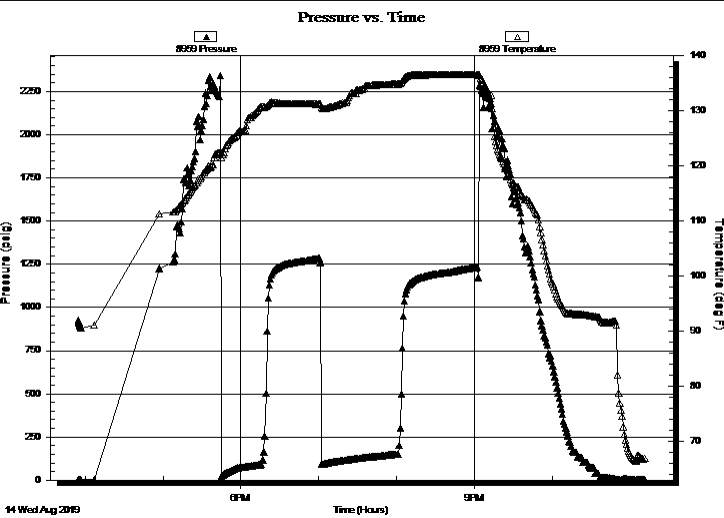
Last Calib.: 2019.08.14

Start Time: 15:55:01 End Time: 23:11:00

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-S.blow built to B.O.B (11 inches) @ 24 mins (blow increased to 14 1/2")
 45-ISI-S.blow back @ 4 mins built to 1/4" @ 7 mins dead @ 32 mins
 60-FF-S.blow built to B.O.B (1 inches) @ 24 mins (blow increased to 26 1/2")
 60-FSI-S.blow back built to 3"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
330.00	GMCO 33%G, 23%M, 44%O	3.44
0.00	180' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy INC

12- 8S.- 37W.

Sherman,KS

125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

V1- 12 Lehman

Job Ticket: 64373

DST#: 7

Test Start: 2019.08.14 @ 15:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
330.00	GMCO 33%G, 23%M, 44%O	3.436
0.00	180' GIP	0.000

Total Length: 330.00 ft Total Volume: 3.436 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

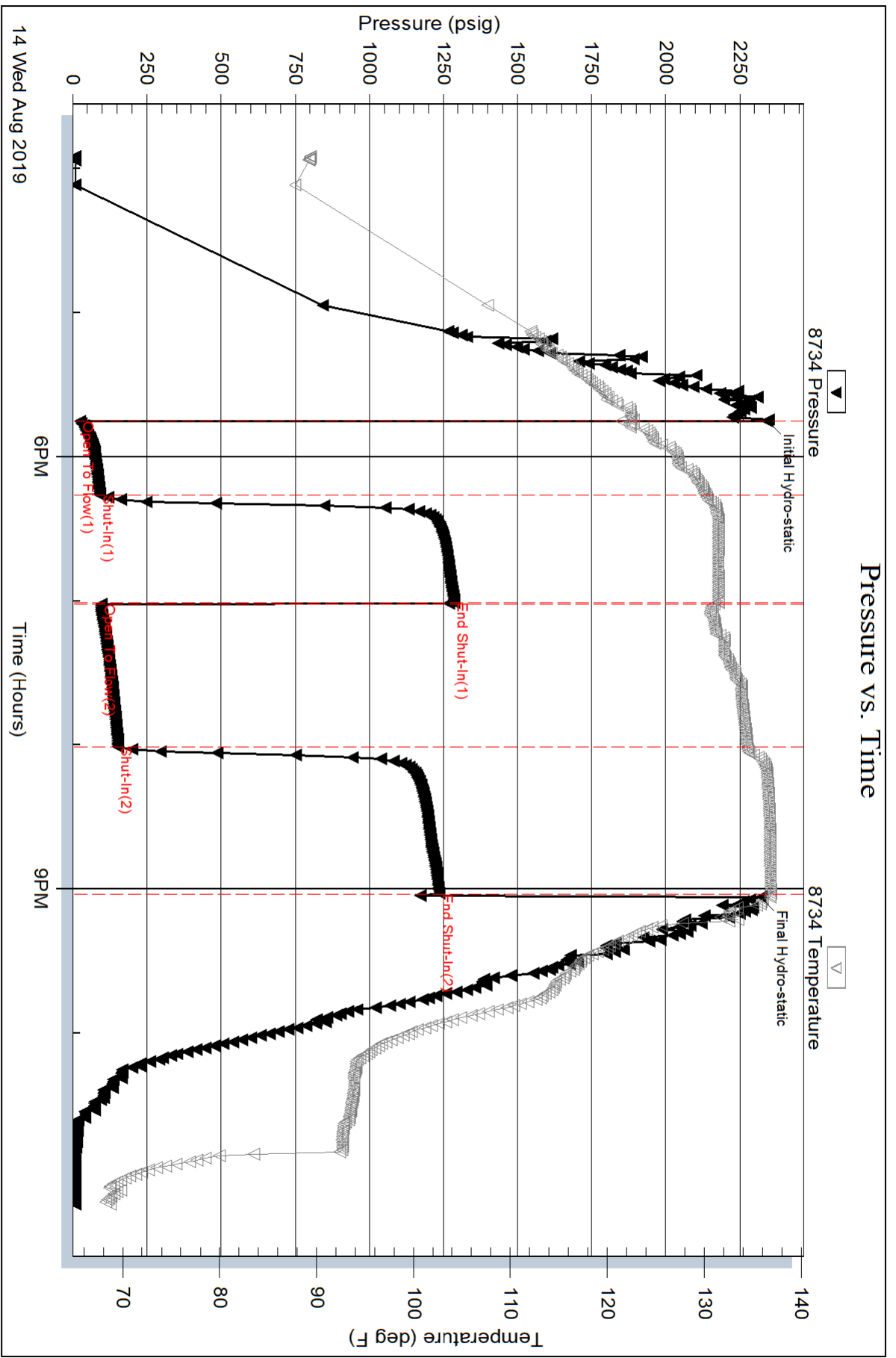
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity of oil = 29 @ 70 degs

Gravity corrected to 28 @ 60 degs



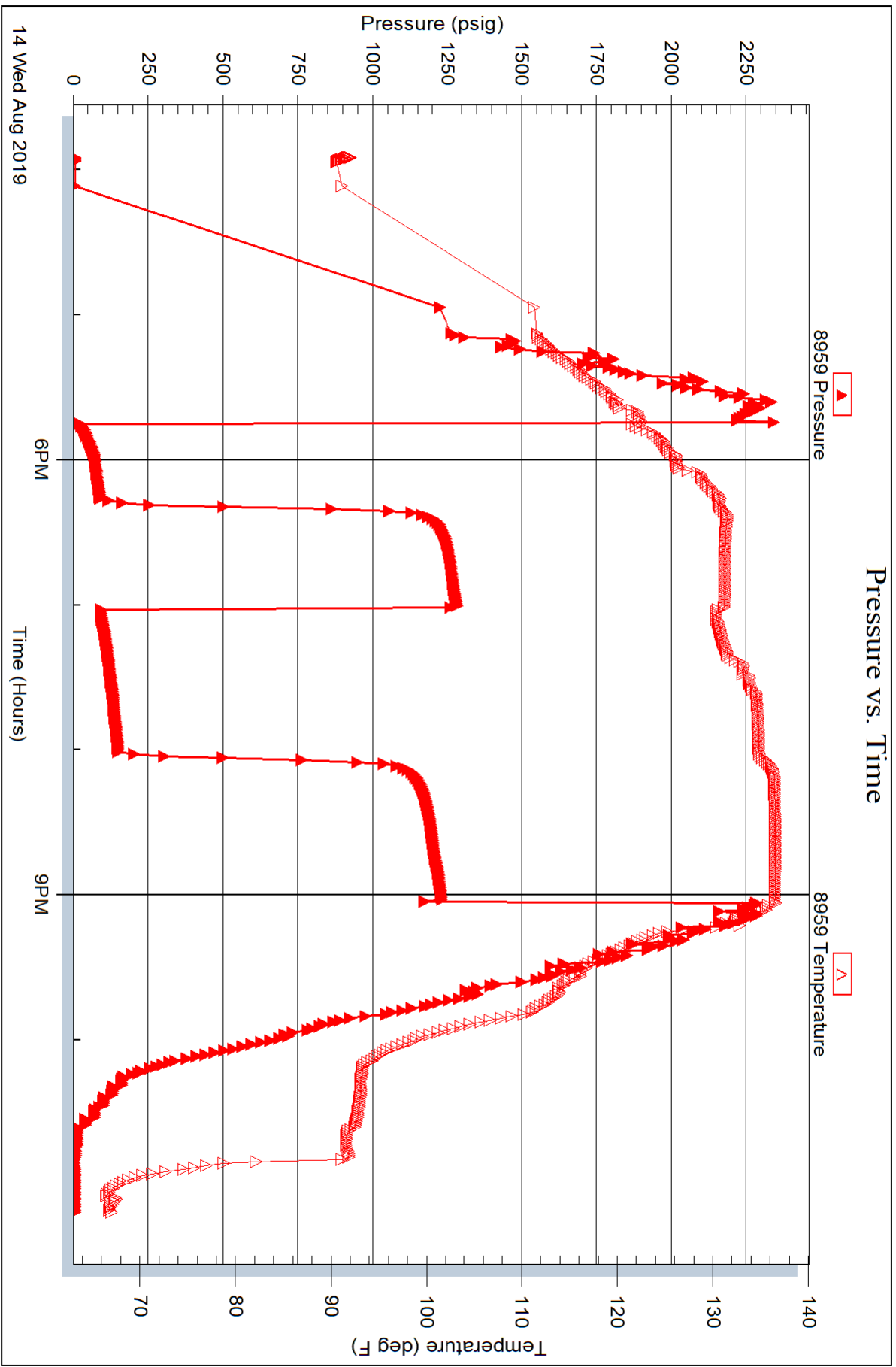
Serial #: 8959

Inside

Val Energy INC

V1-12 Lehman

DST Test Number: 7





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Val Energy INC
125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
Job Ticket: 64374 **DST#: 8**
Test Start: 2019.08.15 @ 05:17:00

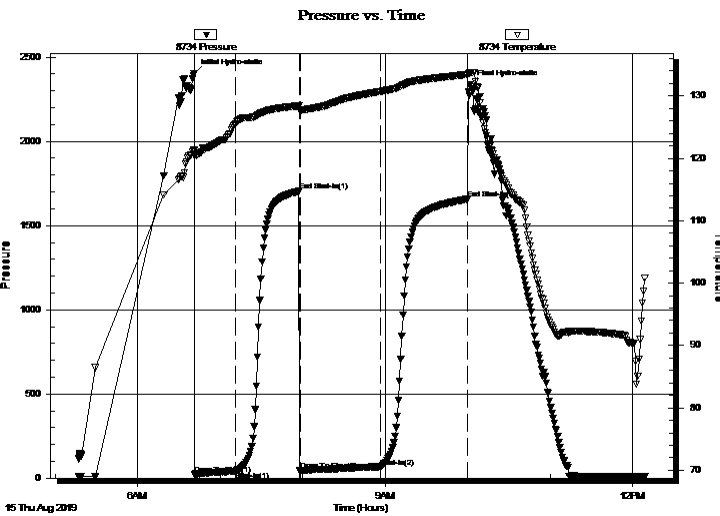
GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:41:10
Time Test Ended: 12:09:00
Test Type: Conventional Bottom Hole (Reset)
Tester: Martine Salinas
Unit No: 82
Interval: **4705.00 ft (KB) To 4736.00 ft (KB) (TVD)**
Reference Elevations: 3427.00 ft (KB)
Total Depth: 4736.00 ft (KB) (TVD) 3422.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press@RunDepth: 66.30 psig @ 4706.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.08.15 End Date: 2019.08.15 Last Calib.: 2019.08.15
Start Time: 05:17:01 End Time: 12:09:00 Time On Btm: 2019.08.15 @ 06:41:00
Time Off Btm: 2019.08.15 @ 10:02:09

TEST COMMENT: 30-IF-S.blow built to 2 1/2"
45-ISI-S.blow back @ 32 mins maintained surface blow
60-FF-S.blow built to 4"
60-FSI-S.blow back @ 25 mins dead @ 34 mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2404.30	121.30	Initial Hydro-static
1	24.22	120.40	Open To Flow (1)
30	40.94	125.54	Shut-In(1)
77	1704.16	128.45	End Shut-In(1)
78	45.09	127.72	Open To Flow (2)
136	66.30	130.74	Shut-In(2)
199	1656.60	133.46	End Shut-In(2)
202	2337.70	133.79	Final Hydro-static

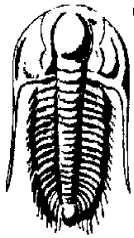
Recovery

Length (ft)	Description	Volume (bbl)
80.00	GMCO 20%G, 30%M, 50%O	0.39
20.00	CGO 10%G, 90%O	0.10
0.00	100' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Val Energy INC
125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

12- 8S.- 37W. Sherman,KS
V1- 12 Lehman
Job Ticket: 64374 **DST#: 8**
Test Start: 2019.08.15 @ 05:17:00

GENERAL INFORMATION:

Formation: **Johnson**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 06:41:10 Tester: Martine Salinas
 Time Test Ended: 12:09:00 Unit No: 82
Interval: 4705.00 ft (KB) To 4736.00 ft (KB) (TVD) Reference Elevations: 3427.00 ft (KB)
 Total Depth: 4736.00 ft (KB) (TVD) 3422.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

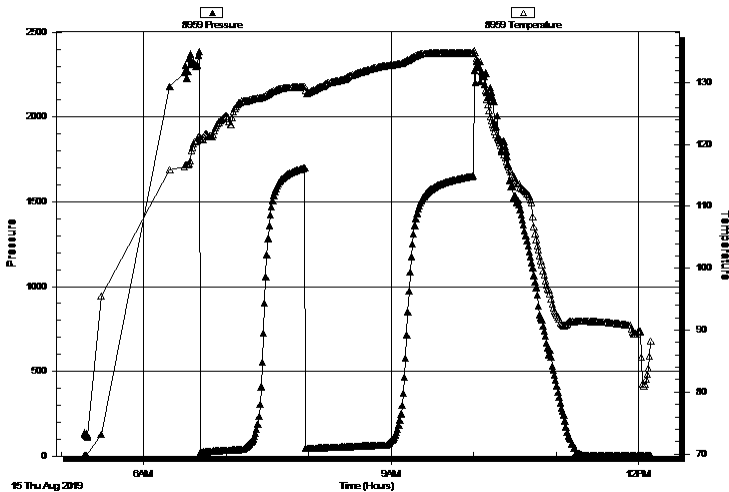
Serial #: 8959

Inside

Press@RunDepth:	psig @	4706.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2019.08.15	End Date:	2019.08.15	Last Calib.:	2019.08.15
Start Time:	05:17:01	End Time:	12:08:50	Time On Btm:	
			Time Off Btm:		

TEST COMMENT: 30-IF-S.blow built to 2 1/2"
 45-ISI-S.blow back @ 32 mins maintained surface blow
 60-FF-S.blow built to 4"
 60-FSI-S.blow back @ 25 mins dead @ 34 mins

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
80.00	GMCO 20%G, 30%M, 50%O	0.39
20.00	CGO 10%G, 90%O	0.10
0.00	100' 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

Val Energy INC

12- 8S.- 37W.

Sherman,KS

125 N Market St.
STE 1110
Wichita, KS 67202
ATTN: Tim Priest

V1- 12 Lehman

Job Ticket: 64374

DST#: 8

Test Start: 2019.08.15 @ 05:17:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	GMCO 20%G, 30%M, 50%O	0.393
20.00	CGO 10%G, 90%O	0.098
0.00	100' GIP	0.000

Total Length: 100.00 ft Total Volume: 0.491 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity of oil = 36.6 @ 96 degs

Gravity corrected to 33 @ 60 degs

