DRILL STEM TEST REPORT

O'Brien Energy

18 Congress St Ste 207
Portsmouth, NH 03801

ATTN: Roger Pearson

16-33S-30W Meade

Hush 3-16

Job Ticket: 63561 **DST#: 1**

Test Start: 2017.02.06 @ 12:39:51

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:30:06
Time Test Ended: 23:56:06

Test Type: Conventional Straddle (Initial)
Tester: Leal Cason
Unit No: 74

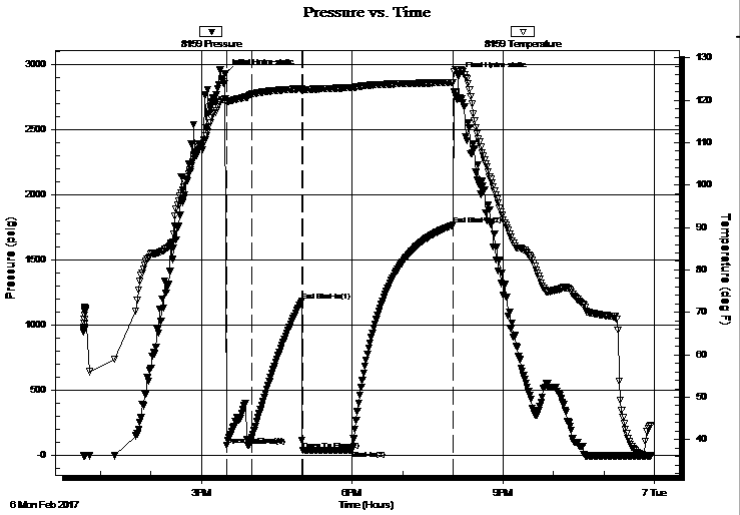
Interval: 5722.00 ft (KB) To 5772.00 ft (KB) (TVD)
Total Depth: 6329.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2743.00 ft (KB)
2730.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8159 **Inside**

Press@RunDepth:	42.54 psig @	5723.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2017.02.06	End Date:	2017.02.06	Last Calib.:	2017.02.07
Start Time:	12:39:52	End Time:	23:56:06	Time On Btm:	2017.02.06 @ 15:28:36
				Time Off Btm:	2017.02.06 @ 20:06:36

TEST COMMENT:
IF: Fair Blow , BOB in 20 minutes
ISI: Blow Back Built to BOB in 46 minutes
FF: Strong Blow , BOB in 10 seconds, GTS in 48 minutes, TSTM, Caught Sample
FSI: 1 Inch Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2933.59	120.40	Initial Hydro-static
2	76.62	119.73	Open To Flow (1)
32	138.58	121.43	Shut-In(1)
92	1185.08	122.71	End Shut-In(1)
93	38.38	122.40	Open To Flow (2)
152	42.54	122.96	Shut-In(2)
272	1768.28	124.17	End Shut-In(2)
278	2911.48	127.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	5635 GIP	0.00
65.00	GCM 5%G 95%M	0.32

Gas Rates

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

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Hush 3-16

Job Ticket: 63561 **DST#: 1**

Test Start: 2017.02.06 @ 12:39:51

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:30:06
Time Test Ended: 23:56:06

Test Type: Conventional Straddle (Initial)
Tester: Leal Cason
Unit No: 74

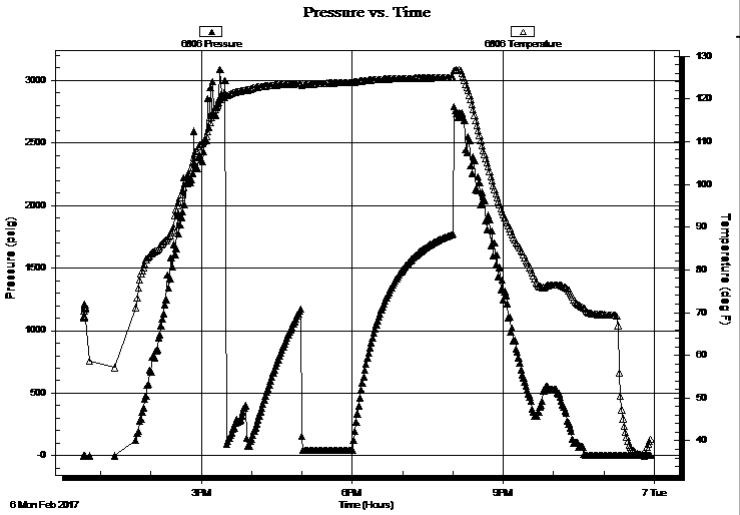
Interval: 5722.00 ft (KB) To 5772.00 ft (KB) (TVD)
Total Depth: 6329.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2743.00 ft (KB)
2730.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 6806 **Outside**

Press@RunDepth:	psig @	5723.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2017.02.06	End Date:	2017.02.06	Last Calib.:	2017.02.07
Start Time:	12:39:52	End Time:	23:56:21	Time On Btm:	
				Time Off Btm:	

TEST COMMENT:
IF: Fair Blow , BOB in 20 minutes
ISI: Blow Back Built to BOB in 46 minutes
FF: Strong Blow , BOB in 10 seconds, GTS in 48 minutes, TSTM, Caught Sample
FSI: 1 Inch Blow Back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	5635 GIP	0.00
65.00	GCM 5%G 95%M	0.32

Gas Rates

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

DRILL STEM TEST REPORT

O'Brien Energy

18 Congress St Ste 207
Portsmouth, NH 03801

ATTN: Roger Pearson

16-33S-30W Meade

Hush 3-16

Job Ticket: 63561 **DST#: 1**

Test Start: 2017.02.06 @ 12:39:51

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:30:06
Time Test Ended: 23:56:06

Test Type: Conventional Straddle (Initial)
Tester: Leal Cason
Unit No: 74

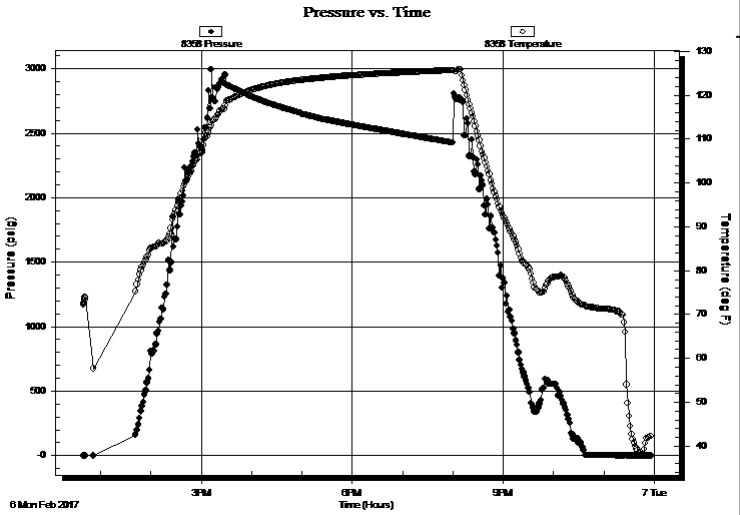
Interval: 5722.00 ft (KB) To 5772.00 ft (KB) (TVD)
Total Depth: 6329.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2743.00 ft (KB)
2730.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8358 **Below (Straddle)**

Press@RunDepth:	psig @	5790.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2017.02.06	End Date:	2017.02.06	Last Calib.:	2017.02.07
Start Time:	12:39:52	End Time:	23:56:06	Time On Btm:	
				Time Off Btm:	

TEST COMMENT:
IF: Fair Blow , BOB in 20 minutes
ISI: Blow Back Built to BOB in 46 minutes
FF: Strong Blow , BOB in 10 seconds, GTS in 48 minutes, TSTM, Caught Sample
FSI: 1 Inch Blow Back



PRESSURE SUMMARY

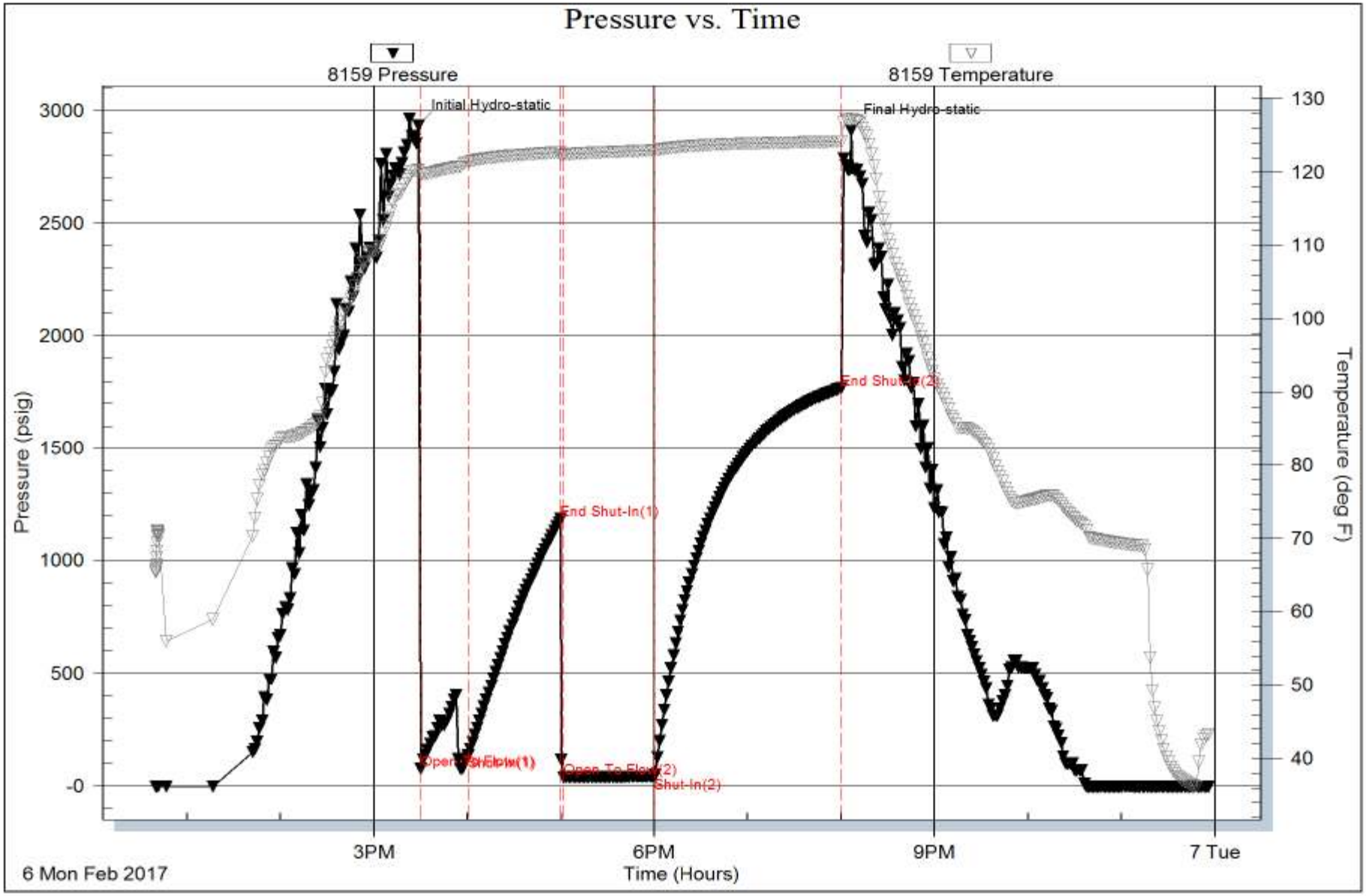
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

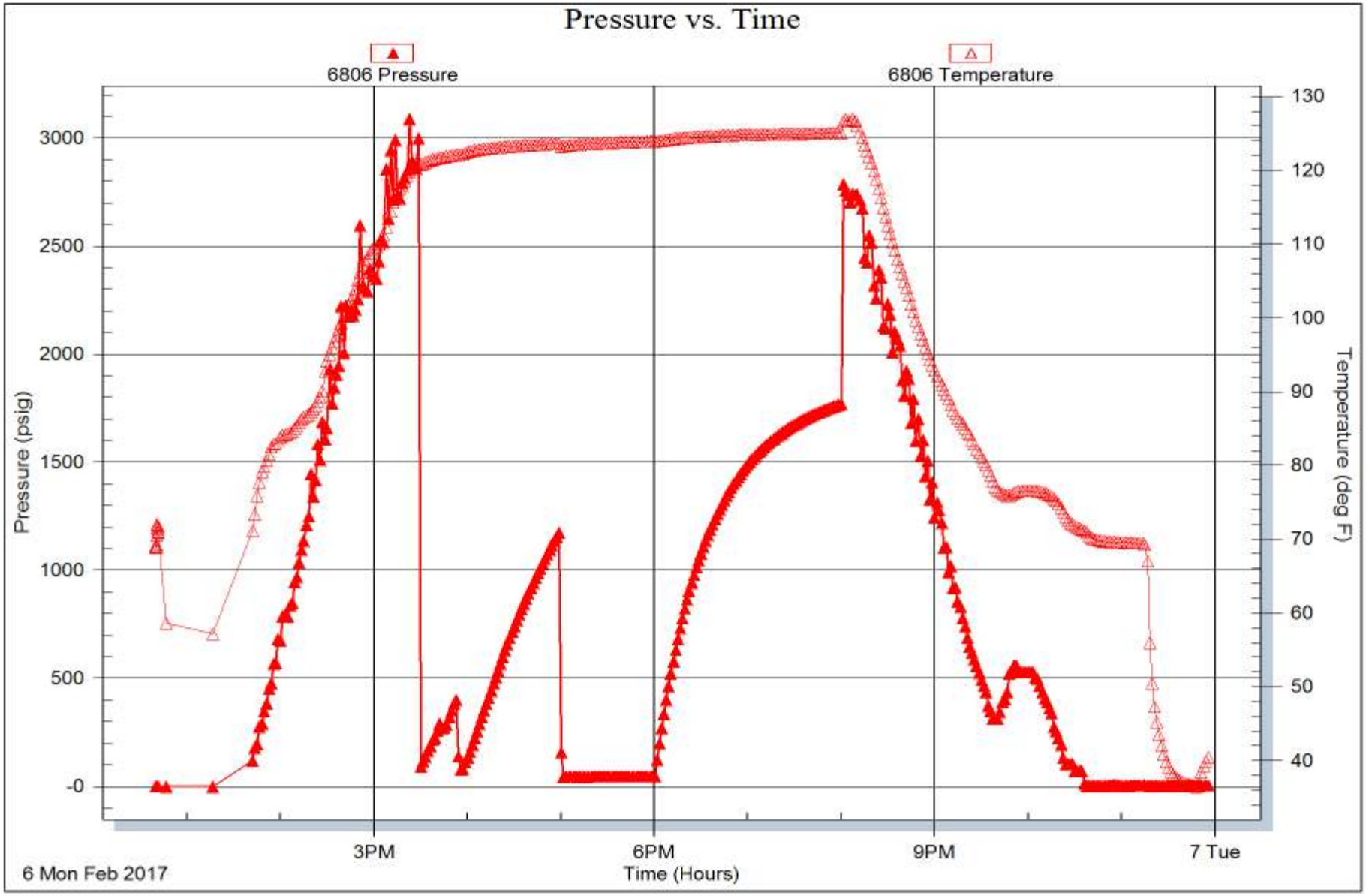
Length (ft)	Description	Volume (bbl)
0.00	5635 GIP	0.00
65.00	GCM 5%G 95%M	0.32

Gas Rates

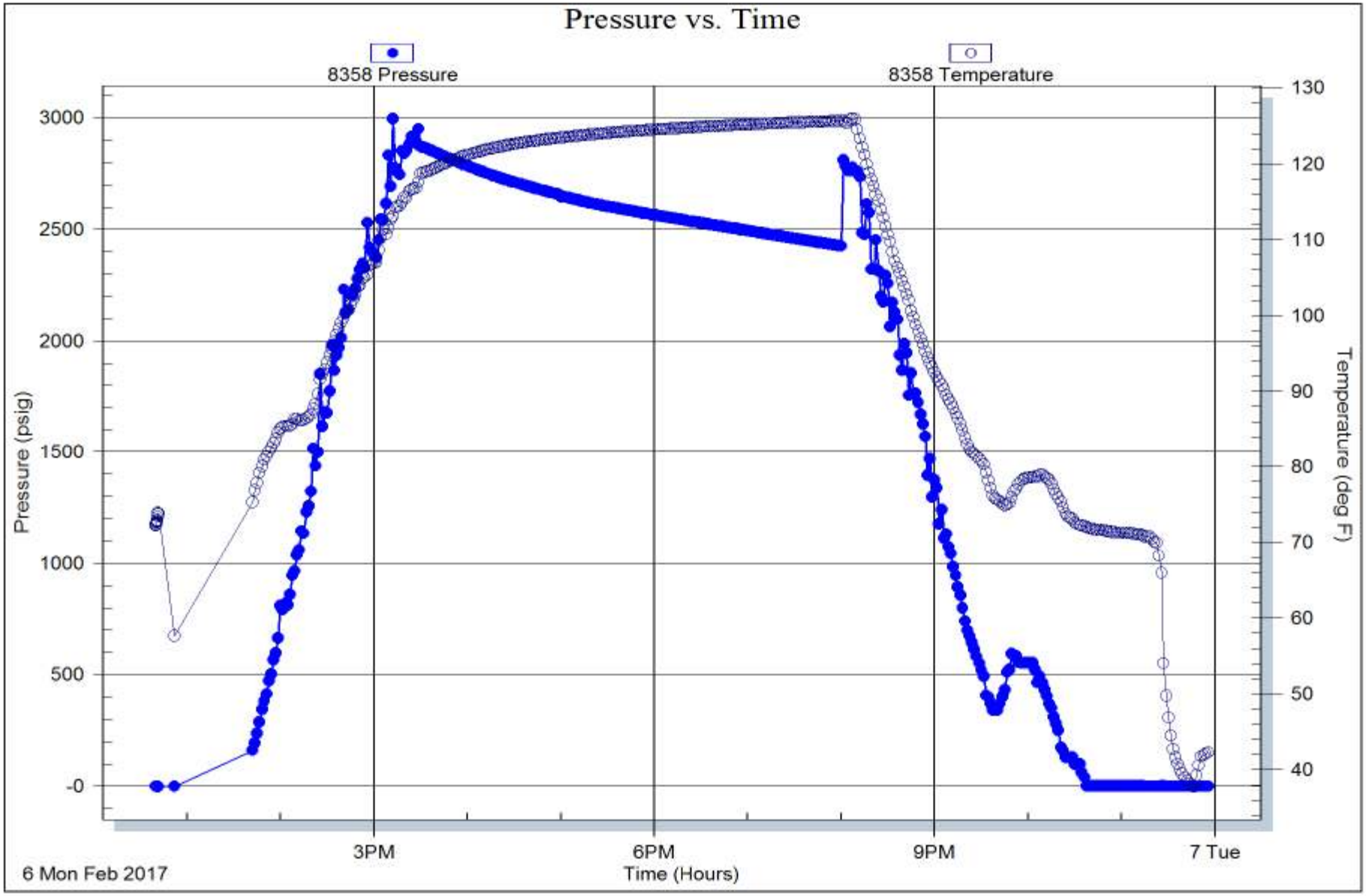
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)


Pressure vs. Time
8159 Pressure
8159 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
3000
2500
2000
1500
1000
500
-0
130
120
110
100
90
80
70
60
50
40
3PM
6PM
9PM
7 Tue
6 Mon Feb 2017
Time (Hours)

Serial #: 6806 **Outside** O'Brien Energy Hush 3-16 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 63561 Printed: 2017.02.07 @ 07:25:52


Pressure vs. Time
8358 Pressure
8358 Temperature
Pressure (psig)
3000
2500
2000
1500
1000
500
-0
Temperature (deg F)
130
120
110
100
90
80
70
60
50
40
3PM
6PM
9PM
7 Tue
6 Mon Feb 2017
Time (Hours)