



DRILL STEM TEST REPORT

Prepared For: **Val Energy, Inc**

124 N Water St Ste 1110
Wichita, KS 67872

ATTN: Tim Priest

Frahm Unit #1-16

16 8s 35w Thomas,KS

Start Date: 2018.07.23 @ 14:26:00

End Date: 2018.07.23 @ 21:52:15

Job Ticket #: 64403 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.07.30 @ 13:19:02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Val Energy, Inc
124 N Water St Ste 1110
Wichita, KS 67872
ATTN: Tim Priest

16 8s 35w Thomas, KS
Frahm Unit #1-16
Job Ticket: 64403 **DST#: 1**
Test Start: 2018.07.23 @ 14:26:00

GENERAL INFORMATION:

Formation: **LKC H - J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:46:15
Time Test Ended: 21:52:15
Interval: **4302.00 ft (KB) To 4378.00 ft (KB) (TVD)**
Total Depth: 4378.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Bradley Walter
Unit No: 78
Reference Elevations: 3333.00 ft (KB)
3328.00 ft (CF)
KB to GR/CF: 5.00 ft

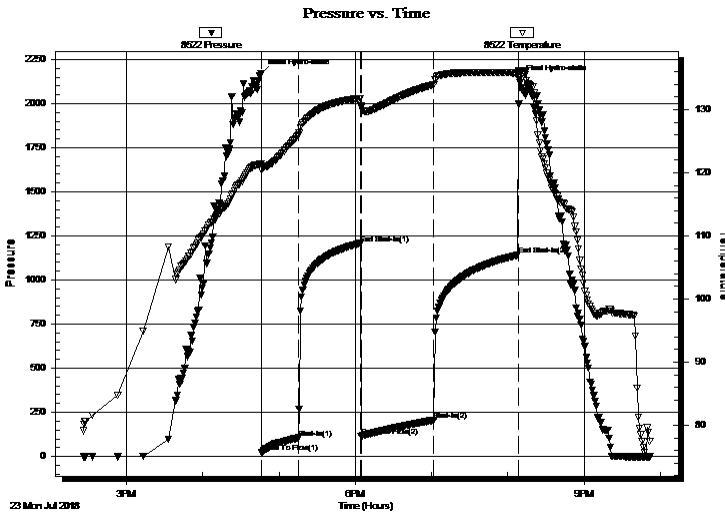
Serial #: 8522

Inside

Press@RunDepth: 205.48 psig @ 4303.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2018.07.23 End Date: 2018.07.23 Last Calib.: 2018.07.23
Start Time: 14:26:05 End Time: 21:52:14 Time On Btm: 2018.07.23 @ 16:46:00
Time Off Btm: 2018.07.23 @ 20:09:15

TEST COMMENT: IF: BOB @ 27 min.
IS: No return.
FF: BOB @ 33 min.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2170.24	121.39	Initial Hydro-static
1	21.65	120.39	Open To Flow (1)
30	105.11	125.94	Shut-In(1)
78	1207.84	131.77	End Shut-In(1)
79	114.97	130.66	Open To Flow (2)
136	205.48	133.97	Shut-In(2)
202	1141.48	135.80	End Shut-In(2)
204	2137.67	136.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
430.00	mcw 4m 96w (oil spots in tool)	4.92

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64403

DST#: 1

ATTN: Tim Priest

Test Start: 2018.07.23 @ 14:26:00

Tool Information

Drill Pipe:	Length: 4188.00 ft	Diameter: 3.80 inches	Volume: 58.75 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 59.35 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	65000.00 lb
Depth to Top Packer:	4302.00 ft			Final	67000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	76.00 ft				
Tool Length:	96.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4283.00	
Shut In Tool	5.00			4288.00	
Hydraulic tool	5.00			4293.00	
Packer	5.00			4298.00	20.00 Bottom Of Top Packer
Packer	4.00			4302.00	
Stubb	1.00			4303.00	
Recorder	0.00	8522	Inside	4303.00	
Recorder	0.00	8319	Outside	4303.00	
Perforations	7.00			4310.00	
Change Over Sub	1.00			4311.00	
Drill Pipe	63.00			4374.00	
Change Over Sub	1.00			4375.00	
Bullnose	3.00			4378.00	76.00 Bottom Packers & Anchor

Total Tool Length: 96.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64403

DST#: 1

ATTN: Tim Priest

Test Start: 2018.07.23 @ 14:26:00

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:

42000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
430.00	mcw 4m 96w (oil spots in tool)	4.920

Total Length: 430.00 ft Total Volume: 4.920 bbl

Num Fluid Samples: 0

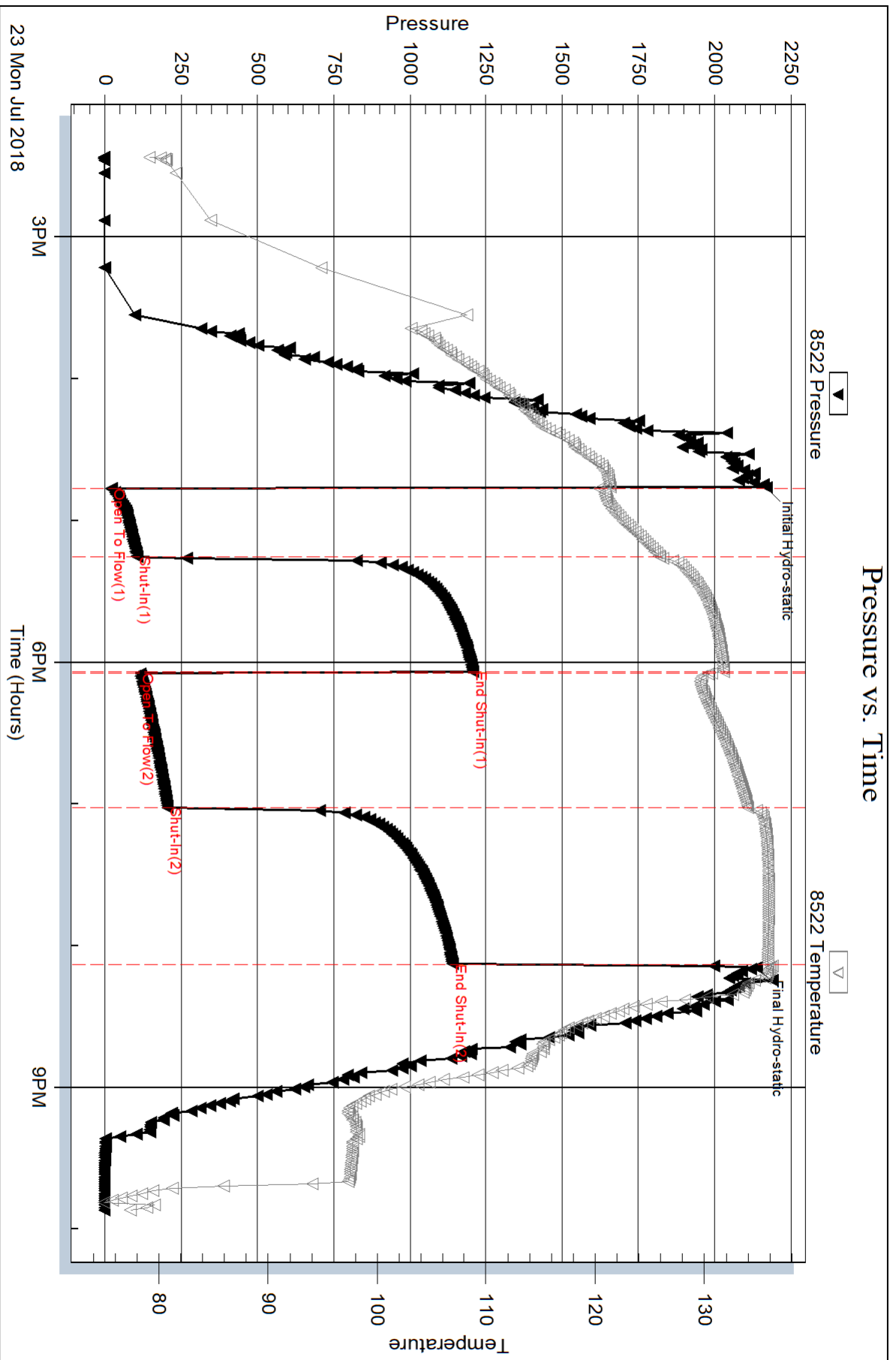
Num Gas Bombs: 0

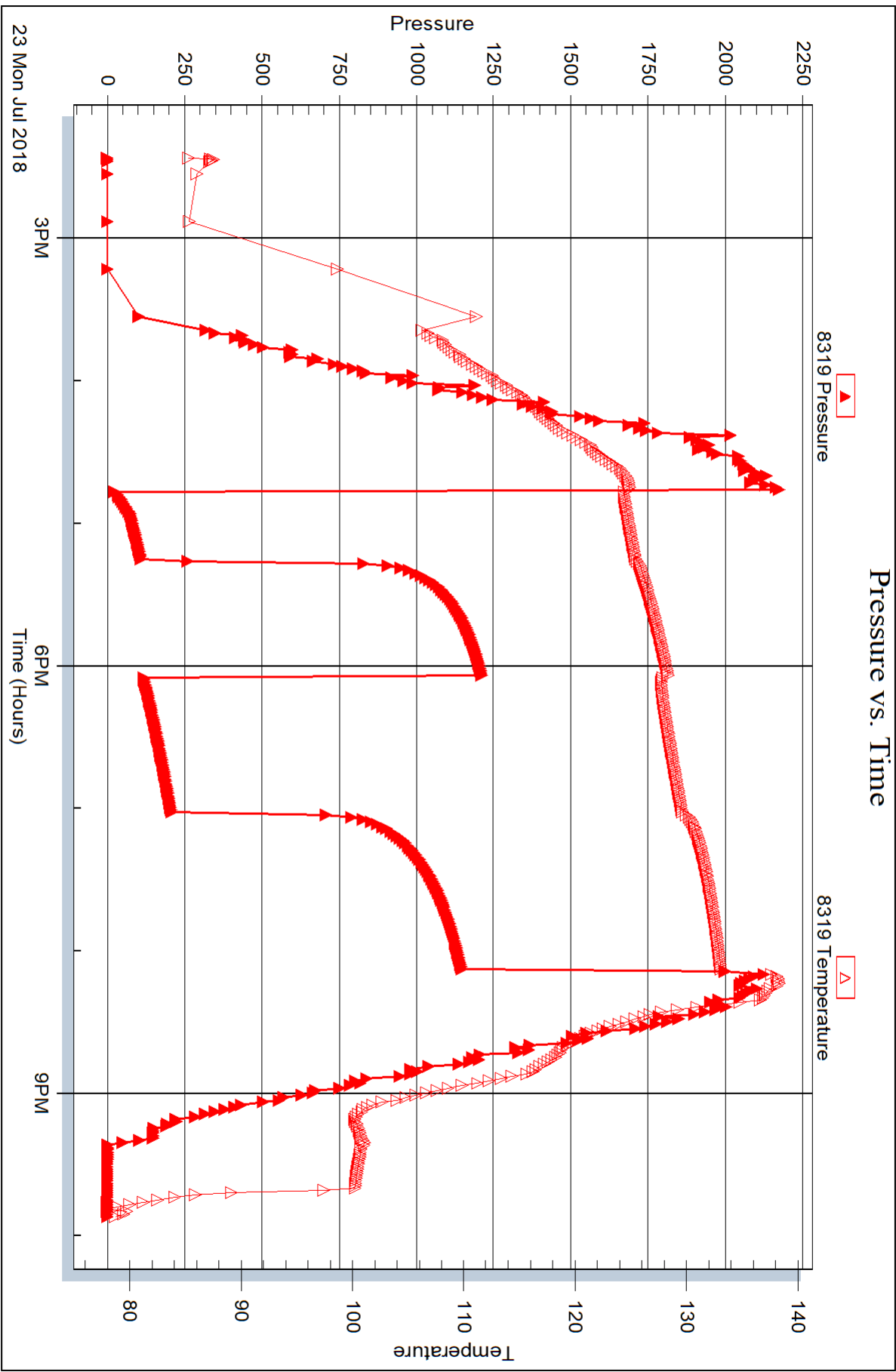
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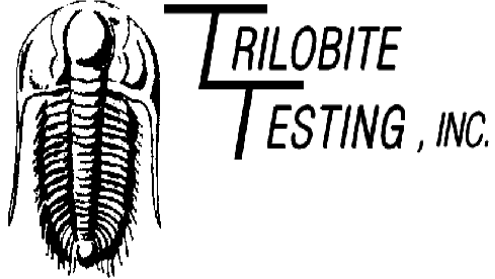
Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .139 @ 85f = 42000ppm







DRILL STEM TEST REPORT

Prepared For: **Val Energy, Inc**

124 N Water St Ste 1110
Wichita, KS 67872

ATTN: Tim Priest

Frahm Unit #1-16

16 8s 35w Thomas,KS

Start Date: 2018.07.24 @ 17:26:00

End Date: 2018.07.24 @ 22:36:15

Job Ticket #: 64404 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.07.30 @ 13:18:38



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

ATTN: Tim Priest

Job Ticket: 64404

DST#: 2

Test Start: 2018.07.24 @ 17:26:00

GENERAL INFORMATION:

Formation: **LKC K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:02:00
 Time Test Ended: 22:36:15
 Interval: **4377.00 ft (KB) To 4410.00 ft (KB) (TVD)**
 Total Depth: 4410.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 3333.00 ft (KB)
 3328.00 ft (CF)
 KB to GR/CF: 5.00 ft

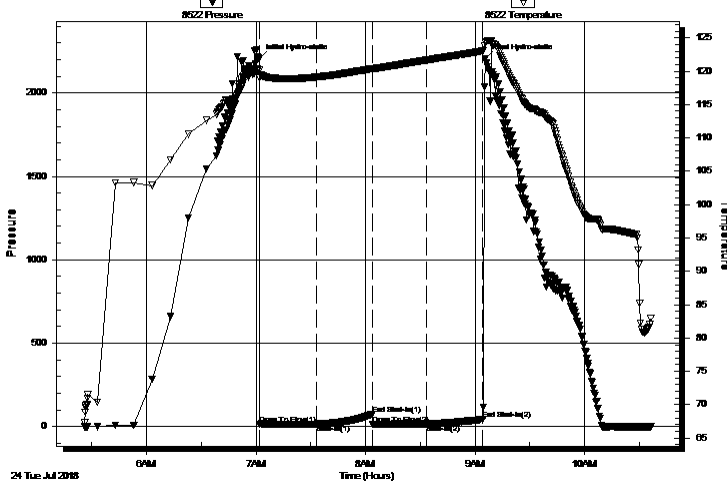
Serial #: 8522

Inside

Press@RunDepth: 15.25 psig @ 4378.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.24 End Date: 2018.07.24 Last Calib.: 2018.07.24
 Start Time: 05:26:05 End Time: 10:36:14 Time On Btm: 2018.07.24 @ 07:01:45
 Time Off Btm: 2018.07.24 @ 09:05:45

TEST COMMENT: IF: 1/2" blow.
 IS: No return.
 FF: No blow.
 FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2208.07	120.16	Initial Hydro-static
1	13.42	118.97	Open To Flow (1)
32	14.64	119.11	Shut-In(1)
62	72.65	120.40	End Shut-In(1)
62	14.50	120.31	Open To Flow (2)
92	15.25	121.66	Shut-In(2)
123	43.02	123.02	End Shut-In(2)
124	2205.96	124.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm 5o 95m	0.02

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Val Energy, Inc
124 N Water St Ste 1110
Wichita, KS 67872
ATTN: Tim Priest

16 8s 35w Thomas,KS
Frahm Unit #1-16
Job Ticket: 64404 **DST#: 2**
Test Start: 2018.07.24 @ 17:26:00

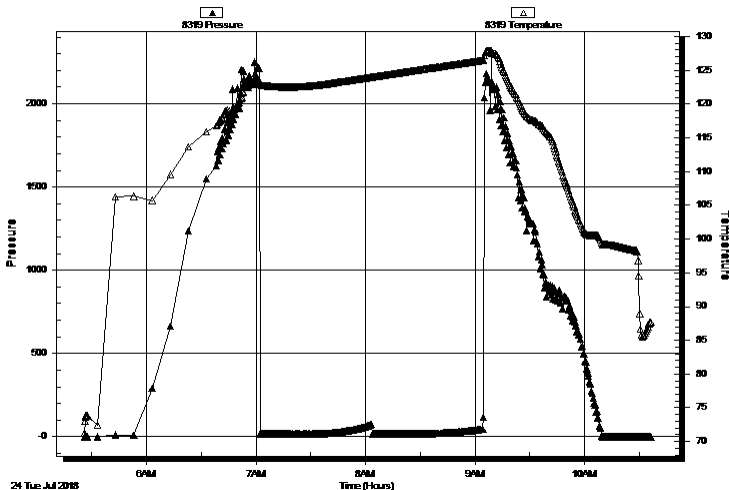
GENERAL INFORMATION:

Formation: **LKC K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 19:02:00
Time Test Ended: 22:36:15
Interval: 4377.00 ft (KB) To 4410.00 ft (KB) (TVD)
Total Depth: 4410.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches
Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78
Reference Elevations: 3333.00 ft (KB)
3328.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8319 Outside
Press@RunDepth: psig @ 4378.00 ft (KB)
Capacity: 8000.00 psig
Start Date: 2018.07.24 End Date: 2018.07.24 Last Calib.: 2018.07.24
Start Time: 05:26:05 End Time: 10:36:14 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: 1/2" blow.
IS: No return.
FF: No blow.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm 5o 95m	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64404

DST#: 2

ATTN: Tim Priest

Test Start: 2018.07.24 @ 17:26:00

Tool Information

Drill Pipe:	Length: 4250.00 ft	Diameter: 3.80 inches	Volume: 59.62 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 60.22 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	68000.00 lb
Depth to Top Packer:	4377.00 ft			Final	68000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	33.00 ft				
Tool Length:	53.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4358.00	
Shut In Tool	5.00			4363.00	
Hydraulic tool	5.00			4368.00	
Packer	5.00			4373.00	20.00 Bottom Of Top Packer
Packer	4.00			4377.00	
Stubb	1.00			4378.00	
Recorder	0.00	8522	Inside	4378.00	
Recorder	0.00	8319	Outside	4378.00	
Perforations	29.00			4407.00	
Bullnose	3.00			4410.00	33.00 Bottom Packers & Anchor
Total Tool Length:	53.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64404

DST#: 2

ATTN: Tim Priest

Test Start: 2018.07.24 @ 17:26:00

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:

0 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	ocm 5o 95m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

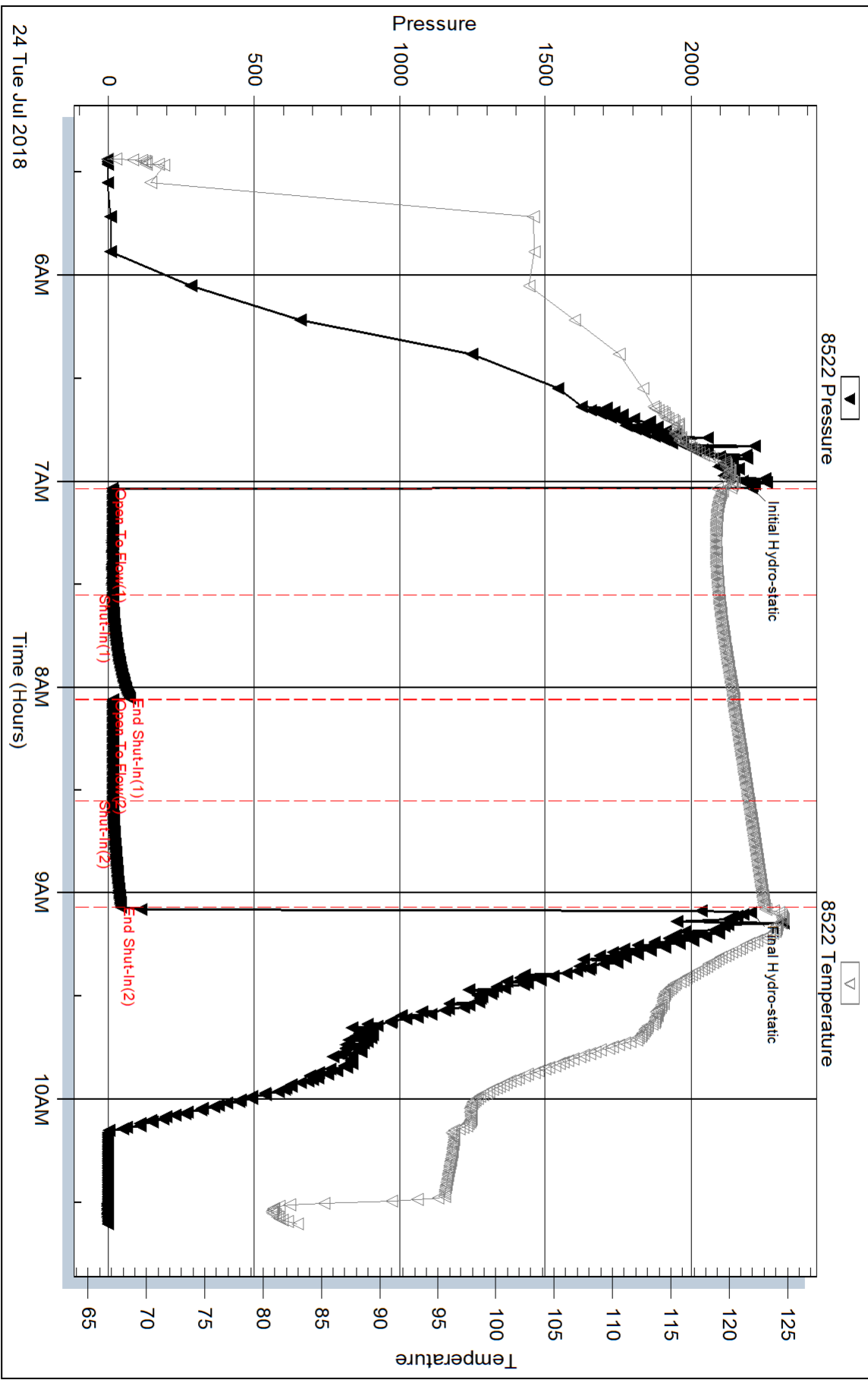
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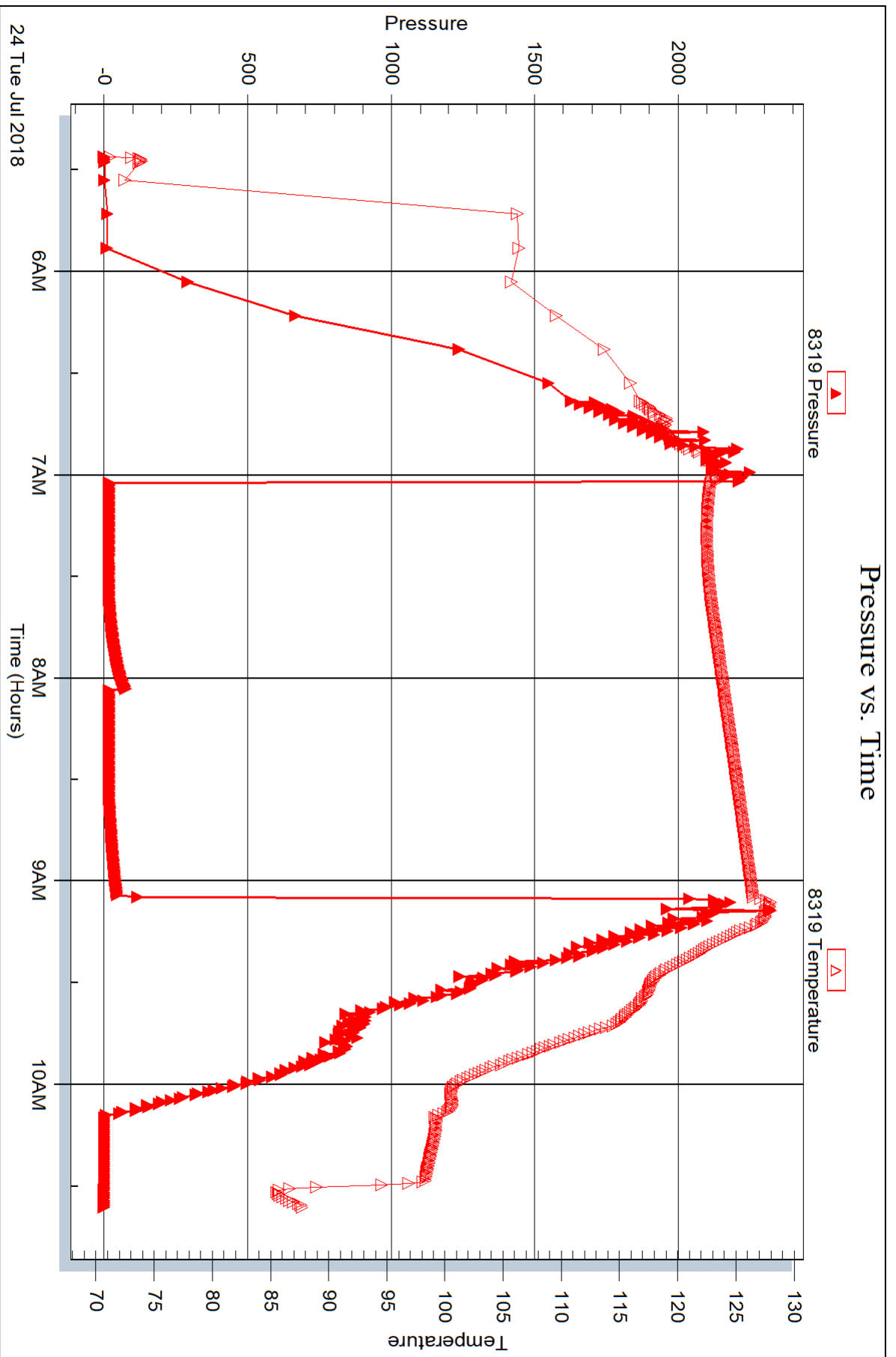
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Val Energy, Inc**

124 N Water St Ste 1110
Wichita, KS 67872

ATTN: Tim Priest

Frahm Unit #1-16

16 8s 35w Thomas,KS

Start Date: 2018.07.25 @ 03:30:00

End Date: 2018.07.25 @ 12:20:00

Job Ticket #: 64405 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.07.30 @ 13:18:15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Val Energy, Inc
124 N Water St Ste 1110
Wichita, KS 67872
ATTN: Tim Priest

16 8s 35w Thomas, KS
Frahm Unit #1-16
Job Ticket: 64405 **DST#: 3**
Test Start: 2018.07.25 @ 03:30:00

GENERAL INFORMATION:

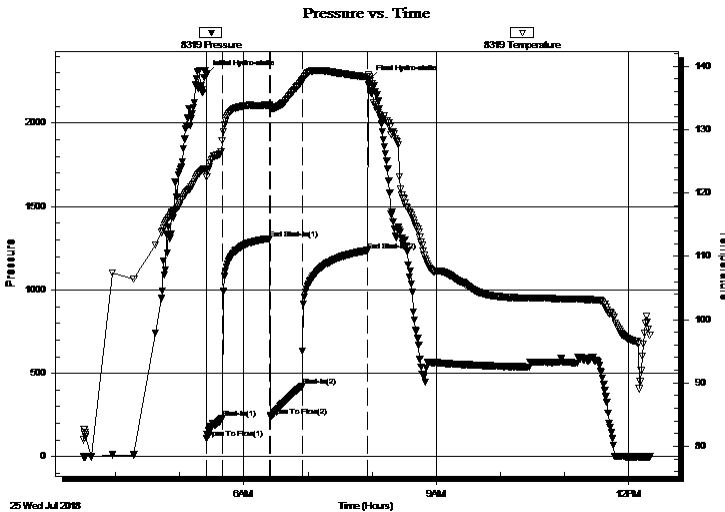
Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:25:15
Time Test Ended: 12:20:00
Interval: **4435.00 ft (KB) To 4540.00 ft (KB) (TVD)**
Total Depth: 4540.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78
Reference Elevations: 3333.00 ft (KB)
3328.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8319 Outside

Press@RunDepth: 423.90 psig @ 4436.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2018.07.25 End Date: 2018.07.25 Last Calib.: 2018.07.25
Start Time: 03:30:05 End Time: 12:20:00 Time On Btm: 2018.07.25 @ 05:25:00
Time Off Btm: 2018.07.25 @ 07:57:00

TEST COMMENT: IF: BOB @ 2 min, built to 73"
IS: BOB @ 10 min, Built to 24"
FF: BOB @ 3 min, built to 147"
FS: Built to 176"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2286.86	123.86	Initial Hydro-static
1	109.47	122.59	Open To Flow (1)
15	229.80	128.24	Shut-In(1)
59	1307.29	133.85	End Shut-In(1)
60	242.67	133.48	Open To Flow (2)
90	423.90	137.67	Shut-In(2)
151	1235.40	138.29	End Shut-In(2)
152	2260.77	138.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	gocm 30g 30o 40m	0.59
980.00	go 40g 60o	13.73
0.00	2110' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64405

DST#: 3

ATTN: Tim Priest

Test Start: 2018.07.25 @ 03:30:00

Tool Information

Drill Pipe:	Length: 4315.00 ft	Diameter: 3.80 inches	Volume: 60.53 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	85000.00 lb
			<u>Total Volume: 61.13 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4435.00 ft			Final	74000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	105.00 ft				
Tool Length:	125.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4416.00	
Shut In Tool	5.00			4421.00	
Hydraulic tool	5.00			4426.00	
Packer	5.00			4431.00	20.00 Bottom Of Top Packer
Packer	4.00			4435.00	
Stubb	1.00			4436.00	
Recorder	0.00	8522	Inside	4436.00	
Recorder	0.00	8319	Outside	4436.00	
Perforations	5.00			4441.00	
Change Over Sub	1.00			4442.00	
Drill Pipe	94.00			4536.00	
Change Over Sub	1.00			4537.00	
Bullnose	3.00			4540.00	105.00 Bottom Packers & Anchor

Total Tool Length: 125.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64405

DST#: 3

ATTN: Tim Priest

Test Start: 2018.07.25 @ 03:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	gocm 30g 30o 40m	0.590
980.00	go 40g 60o	13.729
0.00	2110' GIP	0.000

Total Length: 1100.00 ft Total Volume: 14.319 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

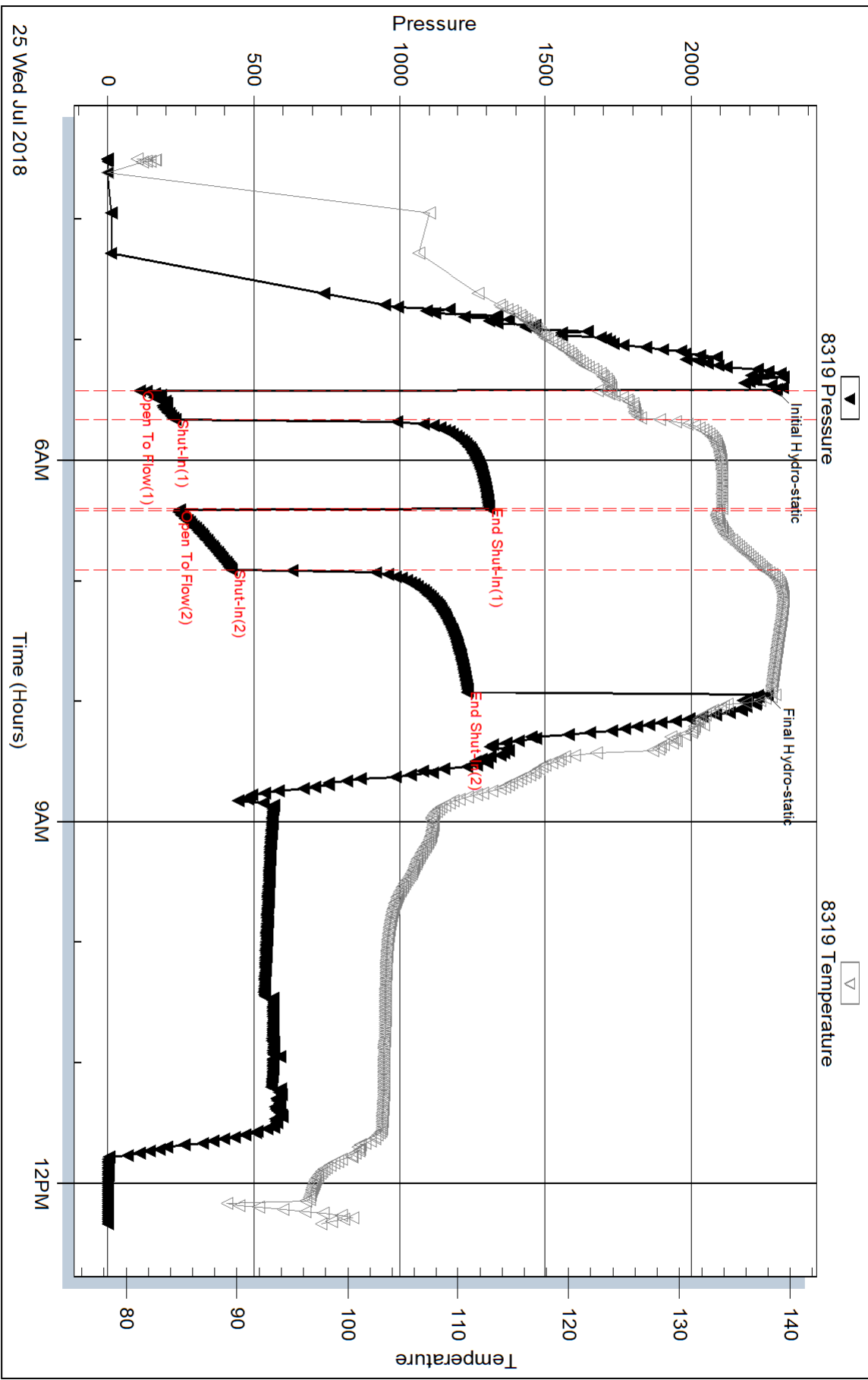
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



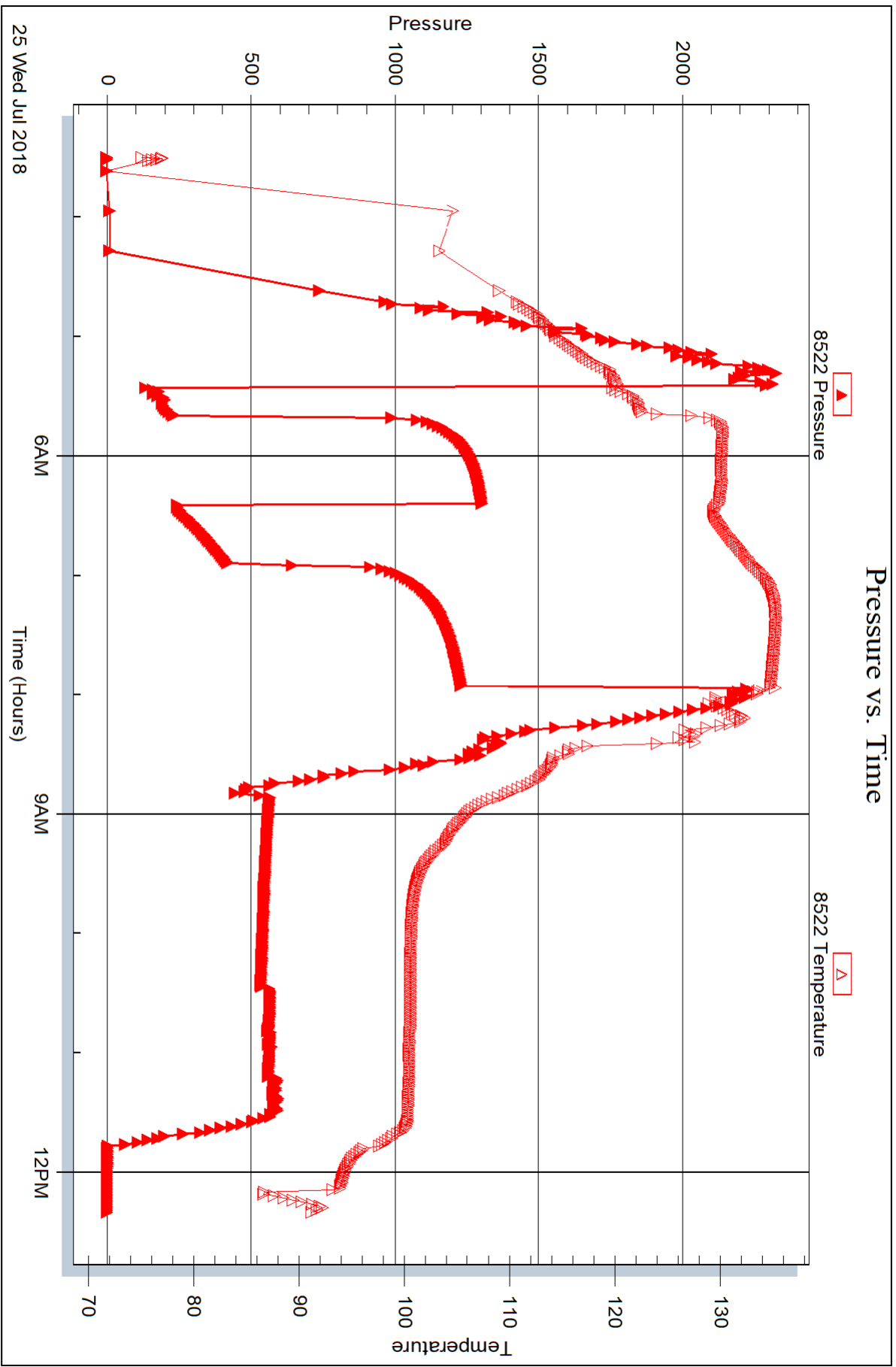
Serial #: 8522

Inside

Val Energy, Inc

Frahm Unit #1-16

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 64405

Printed: 2018.07.30 @ 13:18:16



DRILL STEM TEST REPORT

Prepared For: **Val Energy, Inc**

124 N Water St Ste 1110
Wichita, KS 67872

ATTN: Tim Priest

Frahm Unit #1-16

16 8s 35w Thomas,KS

Start Date: 2018.07.25 @ 20:15:00

End Date: 2018.07.26 @ 03:19:00

Job Ticket #: 64406 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.07.30 @ 13:17:51



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Val Energy, Inc
 124 N Water St Ste 1110
 Wichita, KS 67872
 ATTN: Tim Priest

16 8s 35w Thomas, KS
Frahm Unit #1-16
 Job Ticket: 64406 **DST#: 4**
 Test Start: 2018.07.25 @ 20:15:00

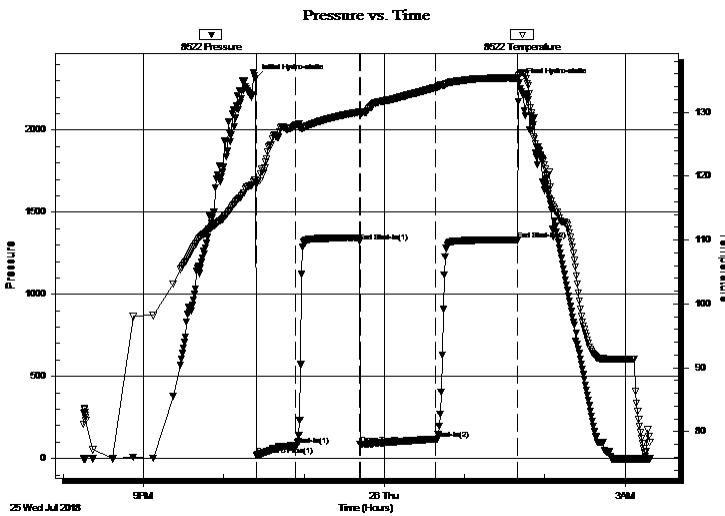
GENERAL INFORMATION:

Formation: **Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:24:15
 Time Test Ended: 03:19:00
 Interval: **4540.00 ft (KB) To 4581.00 ft (KB) (TVD)**
 Total Depth: 4581.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 3333.00 ft (KB)
 3328.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 118.52 psig @ 4541.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.25 End Date: 2018.07.26 Last Calib.: 2018.07.26
 Start Time: 20:15:05 End Time: 03:18:59 Time On Btm: 2018.07.25 @ 22:23:45
 Time Off Btm: 2018.07.26 @ 01:41:00

TEST COMMENT: IF: 8 1/2" blow .
 IS: No return.
 FF: BOB @ 37 min.
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2315.14	119.44	Initial Hydro-static
1	17.50	118.70	Open To Flow (1)
30	80.37	127.97	Shut-In(1)
78	1321.73	130.03	End Shut-In(1)
78	87.04	129.80	Open To Flow (2)
135	118.52	133.89	Shut-In(2)
196	1331.45	135.38	End Shut-In(2)
198	2288.50	135.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
220.00	ow cm 10o 25w 65m	1.97
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

TOOL DIAGRAM

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64406

DST#: 4

ATTN: Tim Priest

Test Start: 2018.07.25 @ 20:15:00

Tool Information

Drill Pipe:	Length: 4409.00 ft	Diameter: 3.80 inches	Volume: 61.85 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 62.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4540.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			4521.00	
Shut In Tool	5.00			4526.00	
Hydraulic tool	5.00			4531.00	
Packer	5.00			4536.00	20.00 Bottom Of Top Packer
Packer	4.00			4540.00	
Stubb	1.00			4541.00	
Recorder	0.00	8522	Inside	4541.00	
Recorder	0.00	8319	Outside	4541.00	
Perforations	4.00			4545.00	
Change Over Sub	1.00			4546.00	
Drill Pipe	31.00			4577.00	
Change Over Sub	1.00			4578.00	
Bullnose	3.00			4581.00	41.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64406

DST#: 4

ATTN: Tim Priest

Test Start: 2018.07.25 @ 20:15:00

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:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
220.00	ow cm 10o 25w 65m	1.975
0.00	100' GIP	0.000

Total Length: 220.00 ft Total Volume: 1.975 bbl

Num Fluid Samples: 0

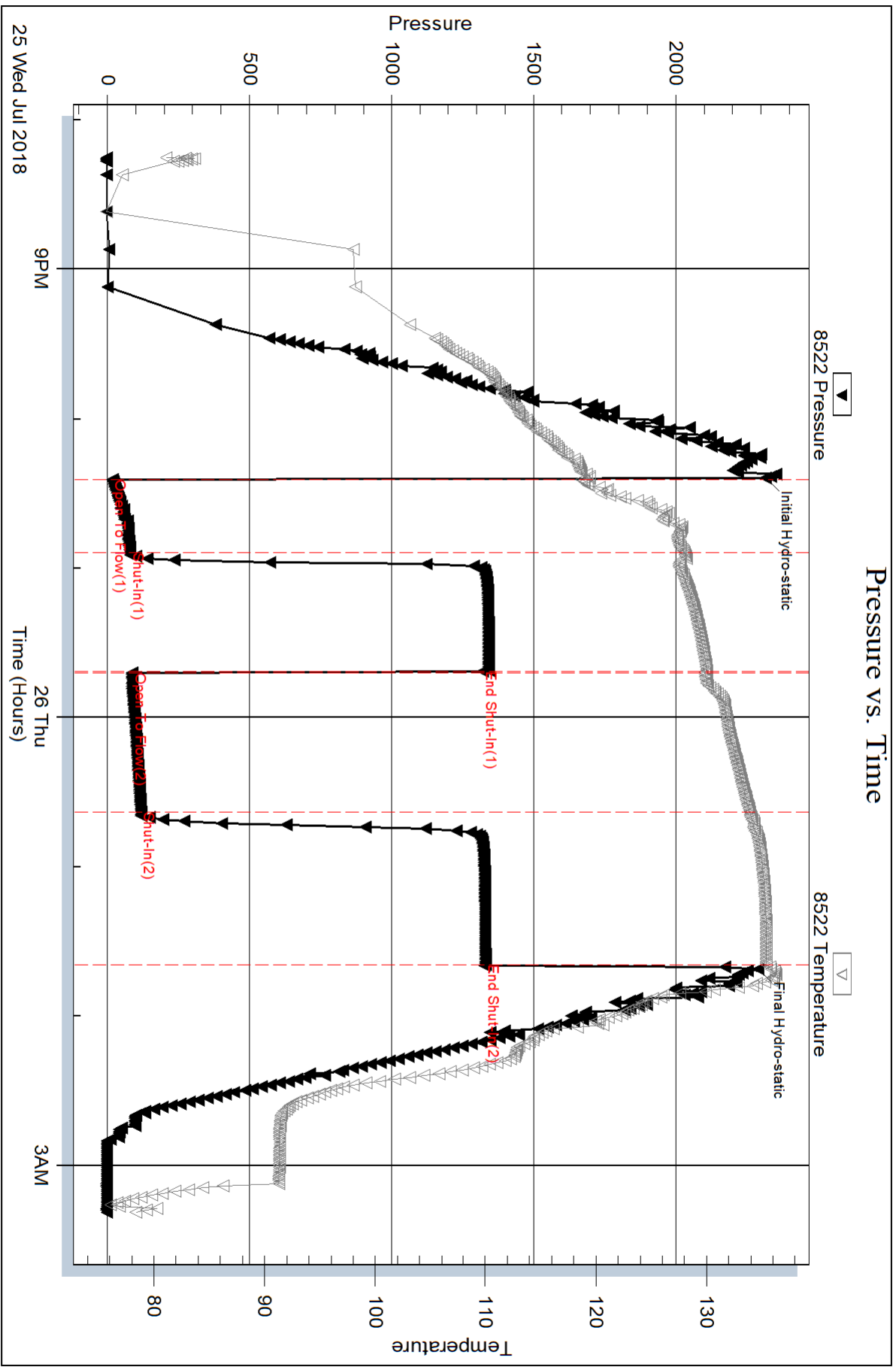
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Val Energy, Inc**

124 N Water St Ste 1110
Wichita, KS 67872

ATTN: Tim Priest

Frahm Unit #1-16

16 8s 35w Thomas,KS

Start Date: 2018.07.26 @ 09:58:00

End Date: 2018.07.26 @ 17:24:00

Job Ticket #: 64407 DST #: 5

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.07.30 @ 13:17:28

Val Energy, Inc
16 8s 35w Thomas,KS
Frahm Unit #1-16
DST # 5
Myric Station
2018.07.26



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Val Energy, Inc
 124 N Water St Ste 1110
 Wichita, KS 67872
 ATTN: Tim Priest

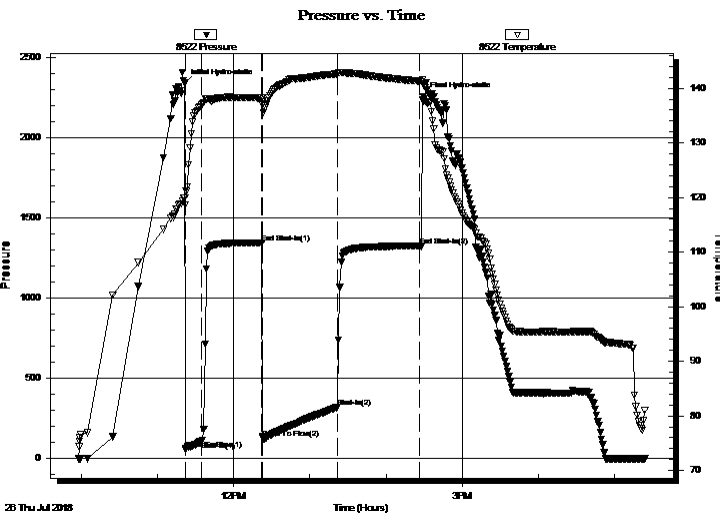
16 8s 35w Thomas, KS
Frahm Unit #1-16
 Job Ticket: 64407 **DST#: 5**
 Test Start: 2018.07.26 @ 09:58:00

GENERAL INFORMATION:

Formation: **Myric Station**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:22:15
 Time Test Ended: 17:24:00
 Interval: **4577.00 ft (KB) To 4605.00 ft (KB) (TVD)**
 Total Depth: 4605.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 3333.00 ft (KB)
 3328.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 320.78 psig @ 4578.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.26 End Date: 2018.07.26 Last Calib.: 2018.07.26
 Start Time: 09:58:05 End Time: 17:23:59 Time On Btm: 2018.07.26 @ 11:21:45
 Time Off Btm: 2018.07.26 @ 14:29:30

TEST COMMENT: IF: BOB @ 3 min. built to 87"
 IS: 2 1/2" return.
 FF: BOB @ 3 min. built to 247"
 FS: BOB @ 10 min. Gas to surface at 45 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2338.17	119.88	Initial Hydro-static
1	55.92	118.64	Open To Flow (1)
13	107.84	136.88	Shut-In(1)
61	1344.31	138.16	End Shut-In(1)
62	127.57	136.90	Open To Flow (2)
121	320.78	142.61	Shut-In(2)
185	1324.93	141.30	End Shut-In(2)
188	2255.76	140.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	mcw 10m 90w (oil spots)	0.59
680.00	go 40g 60o	9.52

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64407

DST#: 5

ATTN: Tim Priest

Test Start: 2018.07.26 @ 09:58:00

Tool Information

Drill Pipe:	Length: 4444.00 ft	Diameter: 3.80 inches	Volume: 62.34 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 62.94 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4577.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4558.00	
Shut In Tool	5.00			4563.00	
Hydraulic tool	5.00			4568.00	
Packer	5.00			4573.00	20.00 Bottom Of Top Packer
Packer	4.00			4577.00	
Stubb	1.00			4578.00	
Recorder	0.00	8522	Inside	4578.00	
Recorder	0.00	8319	Outside	4578.00	
Perforations	24.00			4602.00	
Bullnose	3.00			4605.00	28.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64407

DST#: 5

ATTN: Tim Priest

Test Start: 2018.07.26 @ 09:58:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

40 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

37000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	mcw 10m 90w (oil spots)	0.590
680.00	go 40g 60o	9.520

Total Length: 800.00 ft Total Volume: 10.110 bbl

Num Fluid Samples: 0

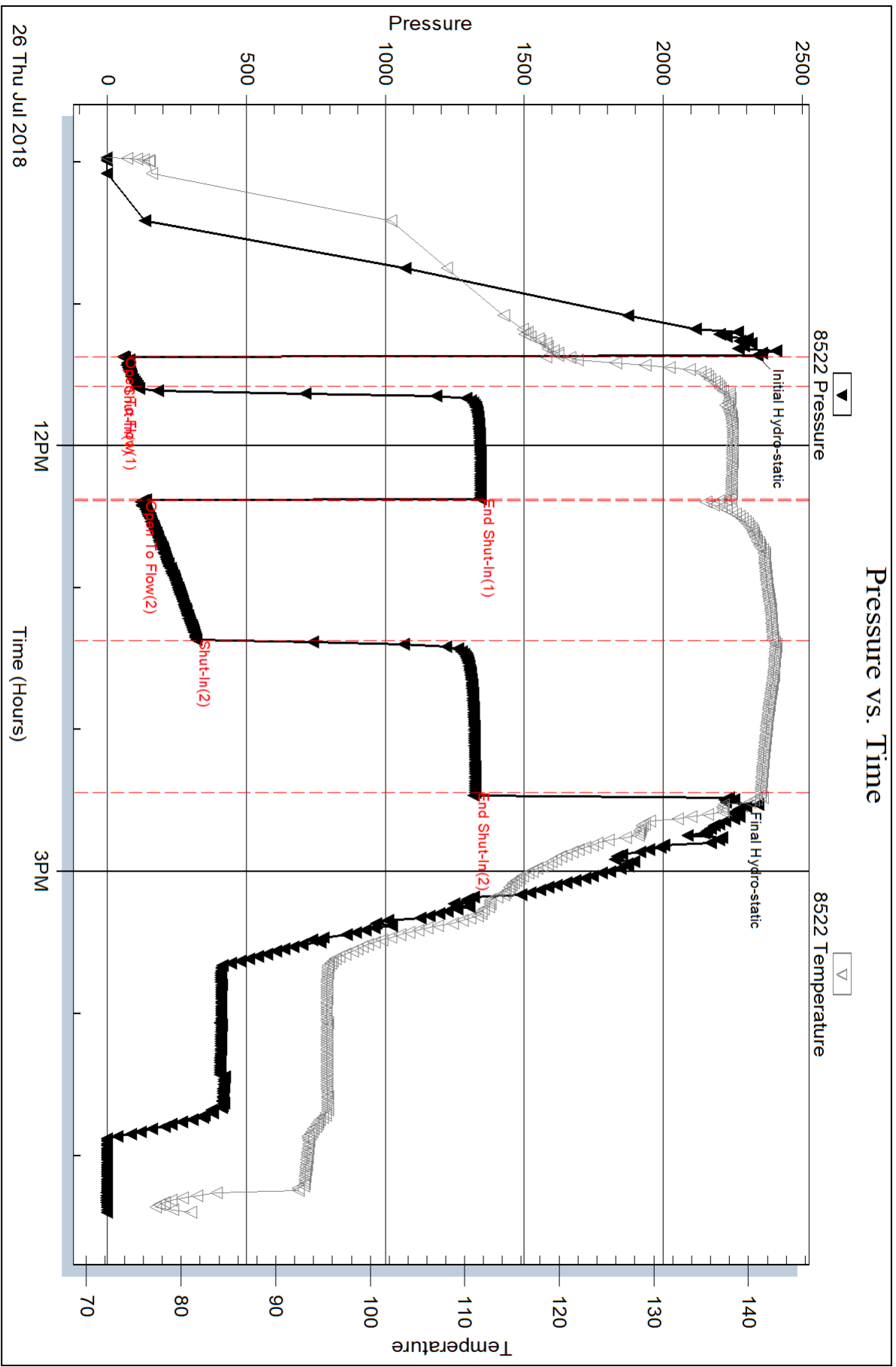
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .165 @ 82f = 37000ppm

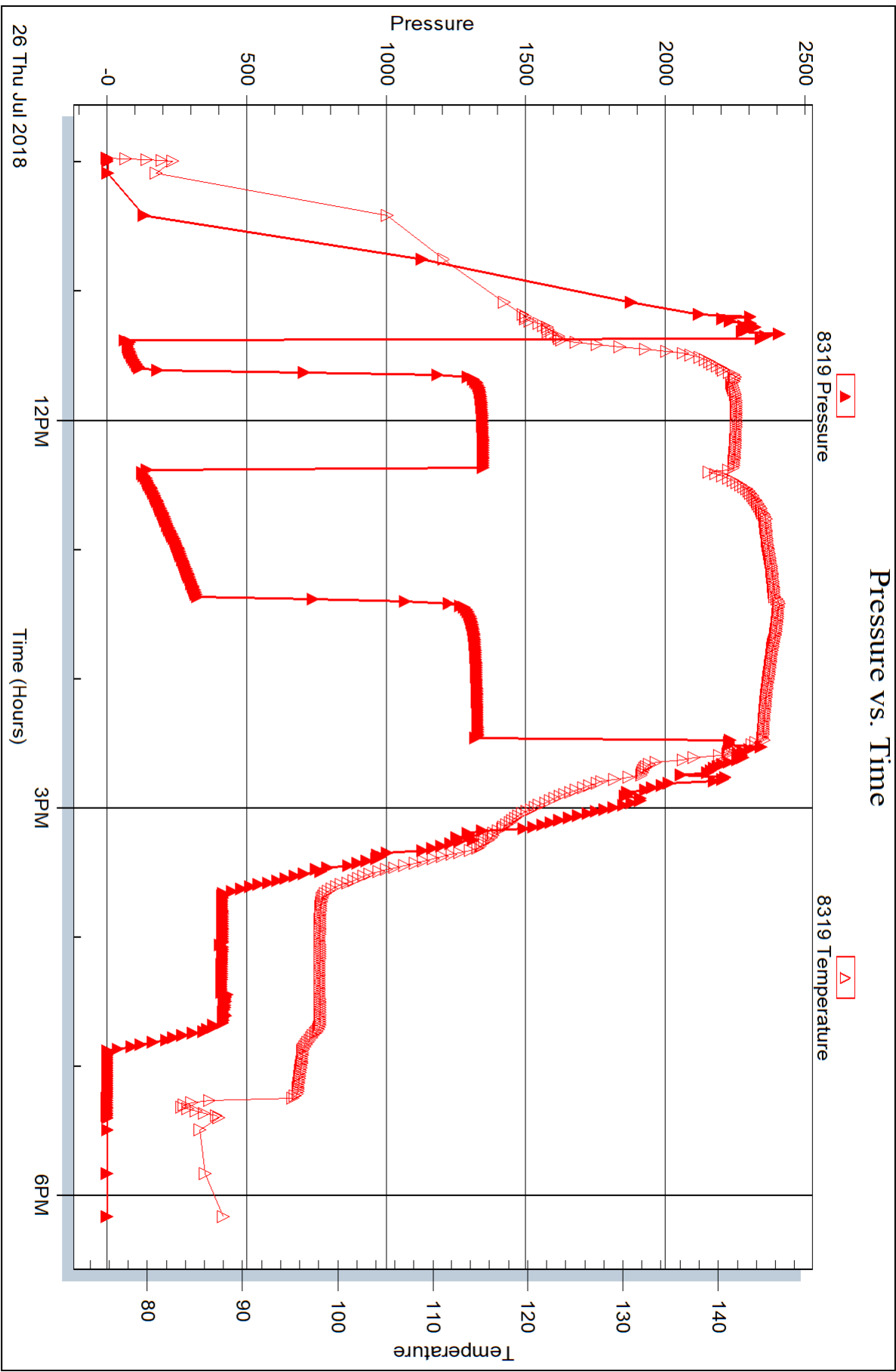


Serial #: 8319

Outside Val Energy, Inc

Frahm Unit #1-16

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 64407

Printed: 2018.07.30 @ 13:17:29



DRILL STEM TEST REPORT

Prepared For: **Val Energy, Inc**

124 N Water St Ste 1110
Wichita, KS 67872

ATTN: Tim Priest

Frahm Unit #1-16

16 8s 35w Thomas,KS

Start Date: 2018.07.27 @ 03:18:00

End Date: 2018.07.27 @ 08:51:45

Job Ticket #: 64408 DST #: 6

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.07.30 @ 13:17:05



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Val Energy, Inc
 124 N Water St Ste 1110
 Wichita, KS 67872
 ATTN: Tim Priest

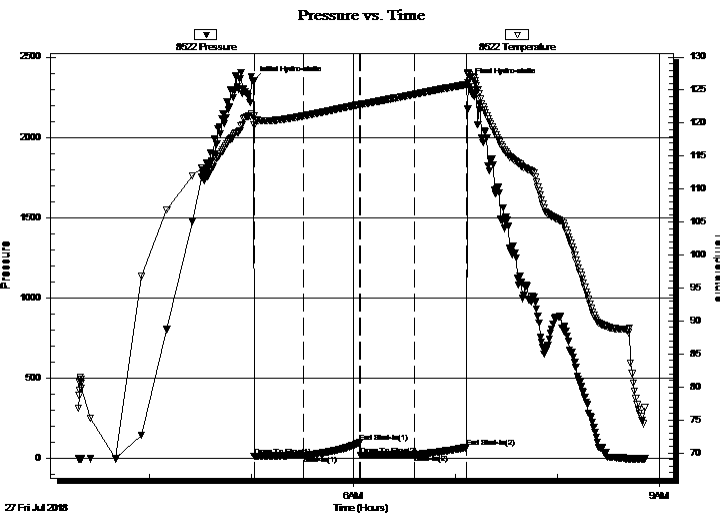
16 8s 35w Thomas, KS
Frahm Unit #1-16
 Job Ticket: 64408 **DST#: 6**
 Test Start: 2018.07.27 @ 03:18:00

GENERAL INFORMATION:

Formation: **Ft. Scott - Cherokee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:01:30
 Time Test Ended: 08:51:45
 Interval: **4612.00 ft (KB) To 4670.00 ft (KB) (TVD)**
 Total Depth: 4670.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 3333.00 ft (KB)
 3328.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 23.26 psig @ 4613.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.27 End Date: 2018.07.27 Last Calib.: 2018.07.27
 Start Time: 03:18:05 End Time: 08:51:44 Time On Btm: 2018.07.27 @ 05:01:15
 Time Off Btm: 2018.07.27 @ 07:07:30

TEST COMMENT: IF: 1/2" blow.
 IS: No return
 FF: 1" blow.
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2350.66	121.03	Initial Hydro-static
1	14.08	119.67	Open To Flow (1)
30	19.96	121.09	Shut-In(1)
63	98.12	122.82	End Shut-In(1)
63	18.42	122.76	Open To Flow (2)
95	23.26	124.36	Shut-In(2)
125	68.24	125.82	End Shut-In(2)
127	2339.21	127.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	ocm 10o 90m	0.12
0.00	35' 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
124 N Water St Ste 1110
Wichita, KS 67872
ATTN: Tim Priest

16 8s 35w Thomas, KS
Frahm Unit #1-16
Job Ticket: 64408 **DST#: 6**
Test Start: 2018.07.27 @ 03:18:00

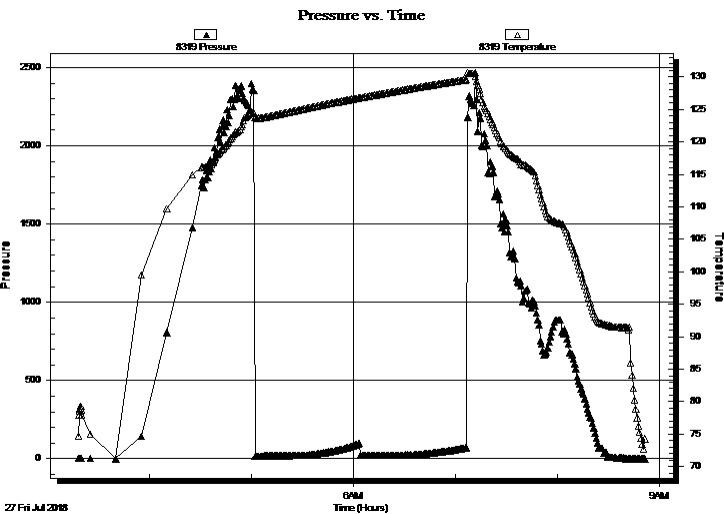
GENERAL INFORMATION:

Formation: **Ft. Scott - Cherokee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:01:30
 Time Test Ended: 08:51:45
 Interval: **4612.00 ft (KB) To 4670.00 ft (KB) (TVD)**
 Total Depth: 4670.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 3333.00 ft (KB)
 3328.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8319 Outside

Press@RunDepth: psig @ 4613.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.27 End Date: 2018.07.27 Last Calib.: 2018.07.27
 Start Time: 03:18:05 End Time: 08:51:44 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: 1/2" blow.
 IS: No return
 FF: 1" blow.
 FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
25.00	ocm 10o 90m	0.12
0.00	35' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64408

DST#: 6

ATTN: Tim Priest

Test Start: 2018.07.27 @ 03:18:00

Tool Information

Drill Pipe:	Length: 4474.00 ft	Diameter: 3.80 inches	Volume: 62.76 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 63.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4612.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	78.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4593.00	
Shut In Tool	5.00			4598.00	
Hydraulic tool	5.00			4603.00	
Packer	5.00			4608.00	20.00 Bottom Of Top Packer
Packer	4.00			4612.00	
Stubb	1.00			4613.00	
Recorder	0.00	8522	Inside	4613.00	
Recorder	0.00	8319	Outside	4613.00	
Perforations	21.00			4634.00	
Change Over Sub	1.00			4635.00	
Drill Pipe	31.00			4666.00	
Change Over Sub	1.00			4667.00	
Bullnose	3.00			4670.00	58.00 Bottom Packers & Anchor

Total Tool Length: 78.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64408

DST#: 6

ATTN: Tim Priest

Test Start: 2018.07.27 @ 03:18:00

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:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	ocm 10o 90m	0.123
0.00	35' GIP	0.000

Total Length: 25.00 ft Total Volume: 0.123 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

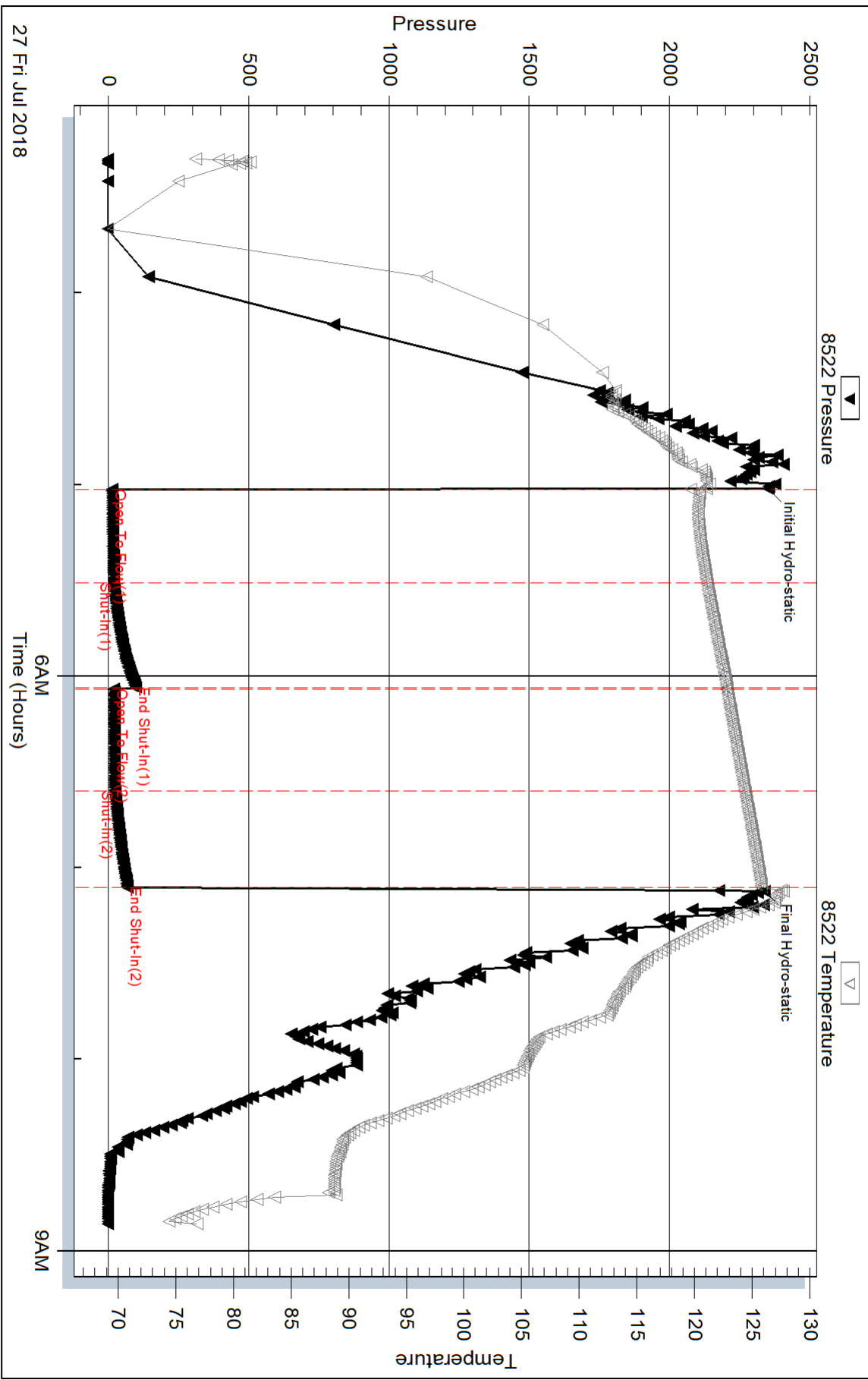
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

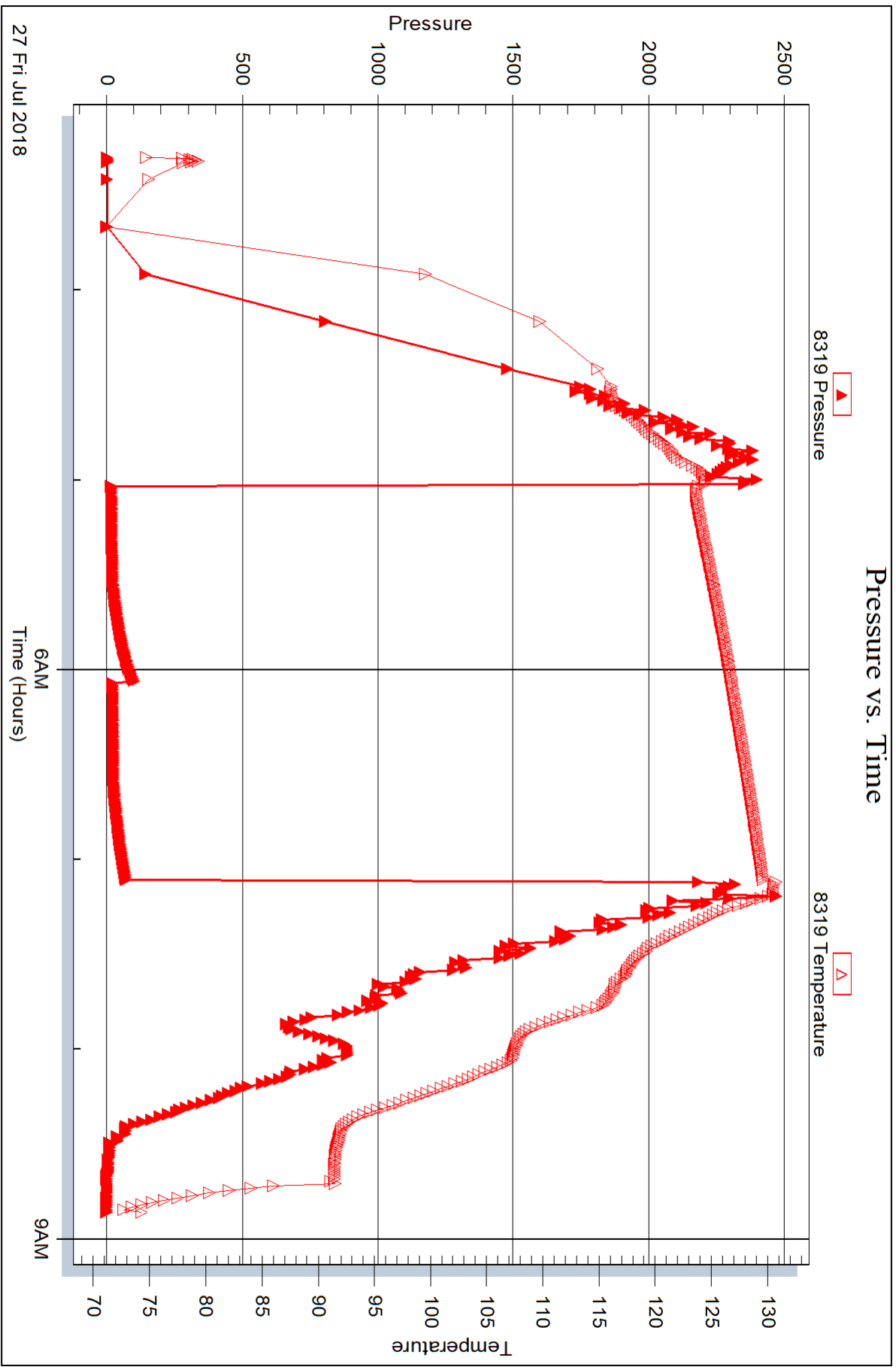


Serial #: 8319

Outside Val Energy, Inc

Frahm Unit #1-16

DST Test Number: 6





DRILL STEM TEST REPORT

Prepared For: **Val Energy, Inc**

124 N Water St Ste 1110
Wichita, KS 67872

ATTN: Tim Priest

Frahm Unit #1-16

16 8s 35w Thomas,KS

Start Date: 2018.07.27 @ 15:53:00

End Date: 2018.07.27 @ 23:15:30

Job Ticket #: 64409 DST #: 7

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.07.30 @ 12:03:09



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Val Energy, Inc
 124 N Water St Ste 1110
 Wichita, KS 67872
 ATTN: Tim Priest

16 8s 35w Thomas, KS
Frahm Unit #1-16
 Job Ticket: 64409 **DST#: 7**
 Test Start: 2018.07.27 @ 15:53:00

GENERAL INFORMATION:

Formation: **Johnson**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:59:00
 Time Test Ended: 23:15:30
 Interval: **4661.00 ft (KB) To 4705.00 ft (KB) (TVD)**
 Total Depth: 4705.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 3333.00 ft (KB)
 3328.00 ft (CF)
 KB to GR/CF: 5.00 ft

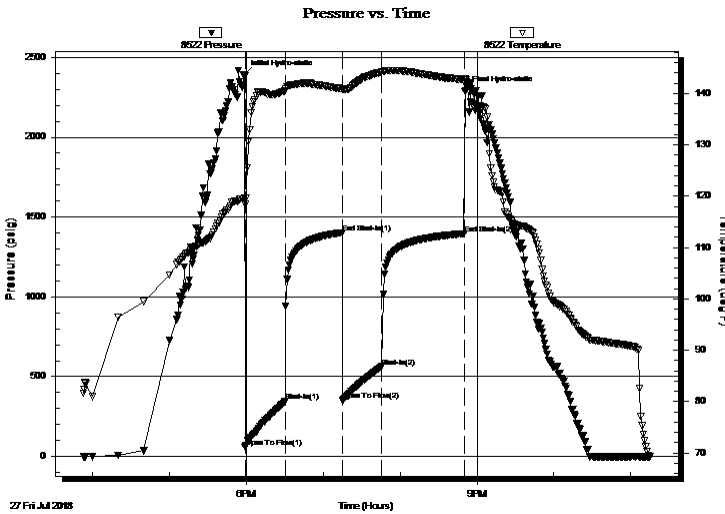
Serial #: 8522

Inside

Press@RunDepth: 562.10 psig @ 4662.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.27 End Date: 2018.07.27 Last Calib.: 2018.07.27
 Start Time: 15:53:05 End Time: 23:15:29 Time On Btm: 2018.07.27 @ 17:58:30
 Time Off Btm: 2018.07.27 @ 20:51:15

TEST COMMENT: IF: BOB @ 5 min. Built to 51"
 ISI No return.
 FF: BOB @ 7 min, Built to 42"
 FSI: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2391.94	119.64	Initial Hydro-static
1	55.48	118.38	Open To Flow (1)
32	344.27	140.52	Shut-In(1)
77	1402.70	140.89	End Shut-In(1)
77	351.85	140.78	Open To Flow (2)
107	562.10	144.15	Shut-In(2)
172	1395.61	142.65	End Shut-In(2)
173	2291.00	142.73	Final Hydro-static

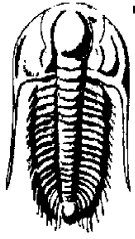
Recovery

Length (ft)	Description	Volume (bbl)
1179.00	mcw 3m 97w (oil spots throughout)	15.43
1.00	oil 100o	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Val Energy, Inc
124 N Water St Ste 1110
Wichita, KS 67872
ATTN: Tim Priest

16 8s 35w Thomas,KS
Frahm Unit #1-16
Job Ticket: 64409 **DST#: 7**
Test Start: 2018.07.27 @ 15:53:00

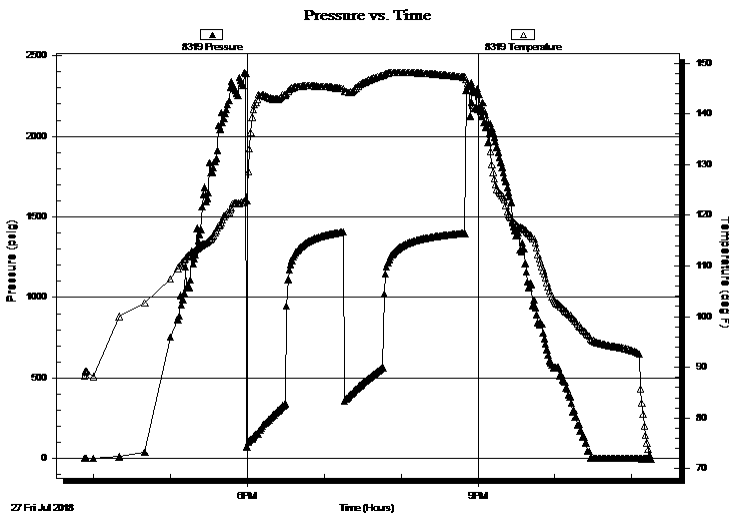
GENERAL INFORMATION:

Formation:	Johnson			Test Type:	Conventional Bottom Hole (Reset)
Deviated:	No Whipstock:	ft (KB)		Tester:	Bradley Walter
Time Tool Opened:	17:59:00			Unit No:	78
Time Test Ended:	23:15:30				
Interval:	4661.00 ft (KB) To 4705.00 ft (KB) (TVD)			Reference Elevations:	3333.00 ft (KB)
Total Depth:	4705.00 ft (KB) (TVD)				3328.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition: Good		KB to GR/CF:	5.00 ft

Serial #: 8319	Outside			Capacity:	8000.00 psig
Press@RunDepth:	psig @ 4662.00 ft (KB)			Last Calib.:	2018.07.27
Start Date:	2018.07.27	End Date:	2018.07.27	Time On Btm:	
Start Time:	15:53:05	End Time:	23:15:29	Time Off Btm:	

TEST COMMENT: IF: BOB @ 5 min. Built to 51"
ISI No return.
FF: BOB @ 7 min, Built to 42"
FSI: No return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
1179.00	mcw 3m 97w (oil spots throughout)	15.43
1.00	oil 100o	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64409

DST#: 7

ATTN: Tim Priest

Test Start: 2018.07.27 @ 15:53:00

Tool Information

Drill Pipe:	Length: 4534.00 ft	Diameter: 3.80 inches	Volume: 63.60 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 110000.0 lb
			<u>Total Volume: 64.20 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4661.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	64.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			4642.00	
Shut In Tool	5.00			4647.00	
Hydraulic tool	5.00			4652.00	
Packer	5.00			4657.00	20.00 Bottom Of Top Packer
Packer	4.00			4661.00	
Stubb	1.00			4662.00	
Recorder	0.00	8522	Inside	4662.00	
Recorder	0.00	8319	Outside	4662.00	
Perforations	7.00			4669.00	
Change Over Sub	1.00			4670.00	
Drill Pipe	31.00			4701.00	
Change Over Sub	1.00			4702.00	
Bullnose	3.00			4705.00	44.00 Bottom Packers & Anchor

Total Tool Length: 64.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Val Energy, Inc

16 8s 35w Thomas,KS

124 N Water St Ste 1110
Wichita, KS 67872

Frahm Unit #1-16

Job Ticket: 64409

DST#: 7

ATTN: Tim Priest

Test Start: 2018.07.27 @ 15:53:00

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:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1179.00	mcw 3m 97w (oil spots throughout)	15.427
1.00	oil 100o	0.014

Total Length: 1180.00 ft Total Volume: 15.441 bbl

Num Fluid Samples: 0

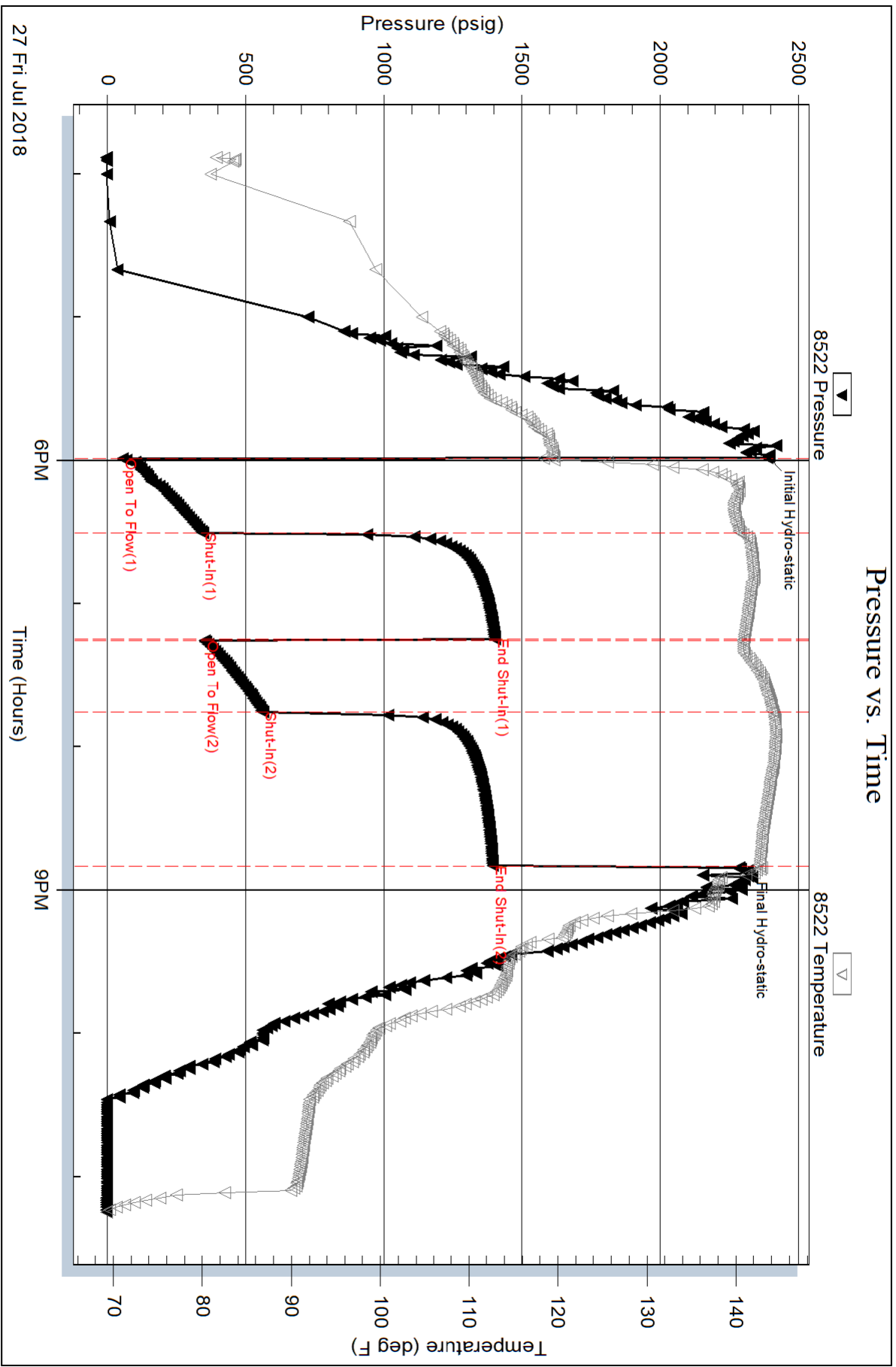
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .114 @ 77f = 61000ppm

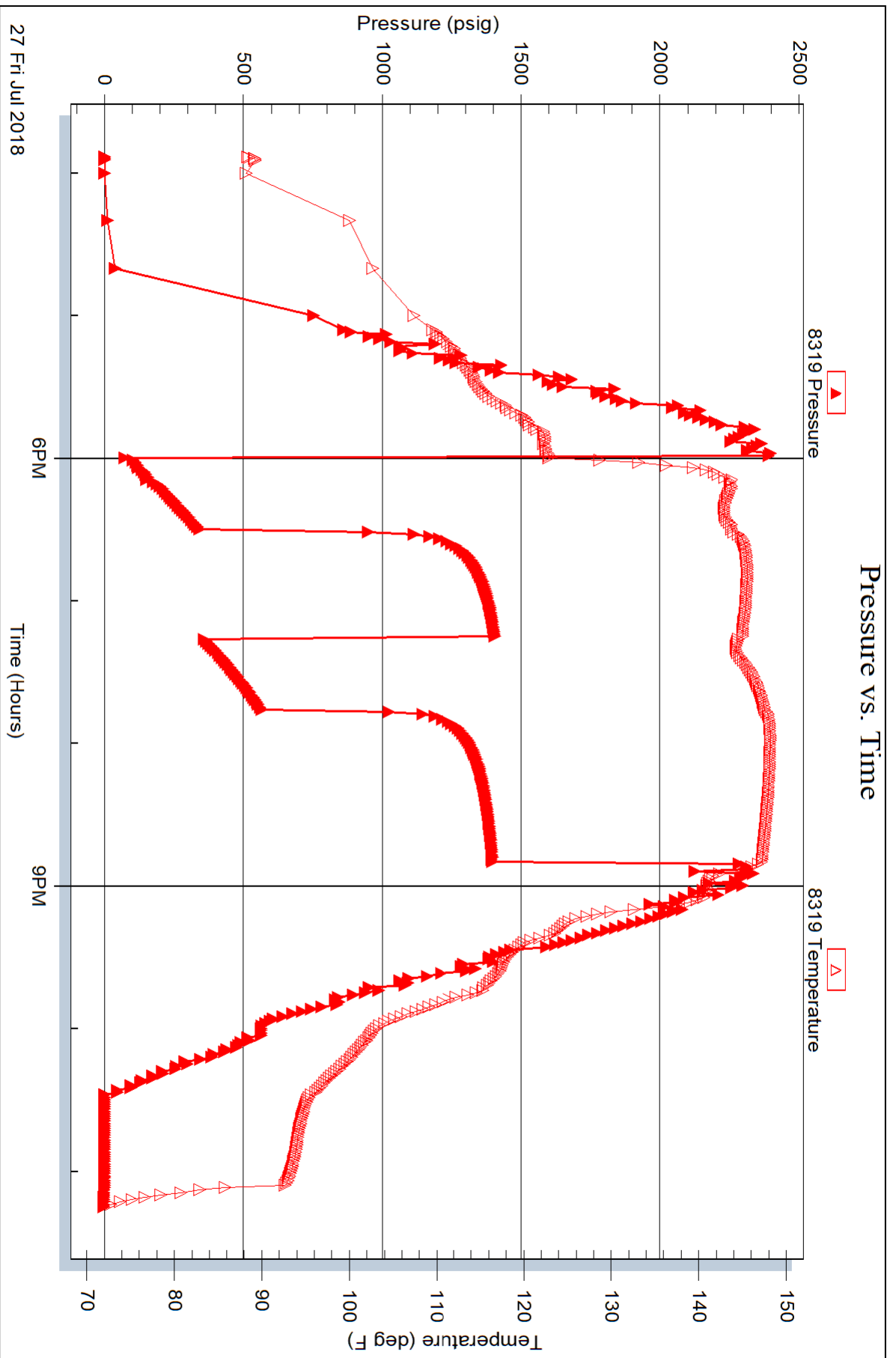


Serial #: 8319

Outside Val Energy, Inc

Frahm Unit #1-16

DST Test Number: 7





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64403

Well Name & No. Frahm Unit # 1-16 Test No. 1 Date 7/23/2018
 Company Val Energy, Inc. Elevation 3333 KB 3328 GL
 Address 125 N Water St. Ste 110 Wichita, KS 67202
 Co. Rep / Geo. Tim Priest Rig WW #10
 Location: Sec. 16 Twp 8s Rge. 35w Co. Thomas State Ks

Interval Tested 4302-4378 Zone Tested LKC H;I;J
 Anchor Length 76' Drill Pipe Run 4188 Mud Wt. 9.1
 Top Packer Depth 4297 Drill Collars Run 122 Vis 58
 Bottom Packer Depth 4302 Wt. Pipe Run Ø WL 6.4
 Total Depth 4378 Chlorides 4,000 ppm System LCM 2#
 Blow Description IF: BOB@ 27 min. built to 12"
ISI: No return.
FF: BOB@ 33 min built to 16"
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>430</u>	<u>mcw</u>			<u>96</u>	<u>4</u>
	<u>oil spots in tool</u>				

Rec Total 430 BHT 137 Gravity — API RW 139 @ 85 °F Chlorides 42,000 ppm
 (A) Initial Hydrostatic 2170 Test 1150 T-On Location 1400
 (B) First Initial Flow 22 Jars — T-Started 1426
 (C) First Final Flow 105 Safety Joint — T-Open 1645
 (D) Initial Shut-In 1208 Circ Sub 1/1 T-Pulled 2000
 (E) Second Initial Flow 115 Hourly Standby — T-Out 2137
 (F) Second Final Flow 205 Mileage 159 RT 126rt 126 Comments —
 (G) Final Shut-In 1141 Sampler —
 (H) Final Hydrostatic 2138 Straddle —
 Ruined Shale Packer —
 Ruined Packer —
 Shale Packer 250 Extra Copies —
 Extra Packer — Sub Total 0
 Extra Recorder — Total 1526
 Day Standby — MP/DST Disc't —
 Accessibility —
 Sub Total 1526

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64404

Well Name & No. Frahm Unit # 1-16 Test No. 2 Date 7/24/2018
 Company Val Energy, Inc Elevation 3333 KB 3328 GL
 Address 125 N Water St. Ste 110 Wichita, Ks 67202
 Co. Rep / Geo. Tim Priest Rig WW #10
 Location: Sec. 16 Twp 8s Rge. 35 w Co. Thomas State Ks

Interval Tested 4372-4410 Zone Tested LKC K
 Anchor Length 33' Drill Pipe Run 4250 Mud Wt. 9.1
 Top Packer Depth 4372 Drill Collars Run 122 Vls 57
 Bottom Packer Depth 4377 Wt. Pipe Run 0 WL 9.6
 Total Depth 4410 Chlorides 4500 ppm System LCM 2#

Blow Description IF 1/2" blow
ISI No return.
FF No blow.
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>0cm</u>	<u>5</u>		<u>95</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 122 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2208 Test 1150 T-On Location 0500
 (B) First Initial Flow 13 Jars _____ T-Started 0526
 (C) First Final Flow 15 Safety Joint _____ T-Open 0703
 (D) Initial Shut-In 73 Circ Sub N/C T-Pulled 0903
 (E) Second Initial Flow 15 Hourly Standby _____ T-Out 1036
 (F) Second Final Flow 15 Mileage 159 ft 126 Comments _____
 (G) Final Shut-In 43 Sampler _____
 (H) Final Hydrostatic 2206 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1276

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1276
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64405

Well Name & No. Frahm Unit # 1-16 Test No. 3 Date 7/25/2018
 Company Val Energy, Inc Elevation 3333 KB 3328 GL
 Address 125 N Water St Ste 110 Wichita, KS 67202
 Co. Rep / Geo. Tim Priest Rig WW #10
 Location: Sec. 16 Twp 8s Rge. 35w Co. Thomas State KS

Interval Tested 4435-4550 Zone Tested Marmaton
 Anchor Length 105' Drill Pipe Run 4315 Mud Wt. 9.2
 Top Packer Depth 4430 Drill Collars Run 122 Vis 52
 Bottom Packer Depth 4435 Wt. Pipe Run 0 WL 9.6
 Total Depth 4550 Chlorides 4500 ppm System LCM 1/2th

Blow Description IF: BOB @ 2 min Built to 73"
ISI: BOB @ 10 min Built to 24"
EF: BOB @ 3 min Built to 148"
FSI: Built to 176"

Rec	Feet of	%gas	%oil	%water	%mud
<u>980</u>	<u>60</u>	<u>40</u>	<u>60</u>		
<u>120</u>	<u>60CM</u>	<u>30</u>	<u>30</u>		<u>40</u>

Rec Total 1100 BHT 138 Gravity 38 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2287 Test 1150 T-On Location 0300
 (B) First Initial Flow 109 Jars _____ T-Started 0330
 (C) First Final Flow 230 Safety Joint _____ T-Open 0525
 (D) Initial Shut-In 1307 Circ Sub Used 50 T-Pulled 0755
 (E) Second Initial Flow 243 Hourly Standby _____ T-Out 1220
 (F) Second Final Flow 424 Mileage 159 RT 126 Comments _____
 (G) Final Shut-In 1235 Sampler _____
 (H) Final Hydrostatic 2261 Straddle _____

Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1576
 Sub Total 1576 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64406

Well Name & No. Frahm Unit # 1-16 Test No. 4 Date 2/26/2018
 Company Val Energy, Inc Elevation 3333 KB 3328 GL
 Address 115 N Water St Ste 110 Wichita, KS 67202
 Co. Rep / Geo. Tim Priest Rig WW #10
 Location: Sec. 16 Twp 8s Rge. 35w Co. Thomas State KS

Interval Tested 4540-4581 Zone Tested Pawnee
 Anchor Length 41' Drill Pipe Run 4409 Mud Wt. 9.2
 Top Packer Depth 4535 Drill Collars Run 122 Vis 52
 Bottom Packer Depth 4540 Wt. Pipe Run 0 WL 10.4
 Total Depth 4581 Chlorides 4500 ppm System LCM 1.5 #

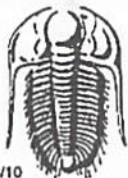
Blow Description IF 8 1/2" blow
ISF No return.
FF BOB @ 37 min.
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>220</u>	<u>0wcm</u>	<u>10</u>	<u>25</u>	<u>65</u>	
	<u>100' GIP</u>				

Rec Total 220 BHT 135 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2315</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1900</u>
(B) First Initial Flow <u>18</u>	<input type="checkbox"/> Jars	T-Started <u>2026</u>
(C) First Final Flow <u>80</u>	<input type="checkbox"/> Safety Joint	T-Open <u>2223</u>
(D) Initial Shut-In <u>1322</u>	<input checked="" type="checkbox"/> Circ Sub <u>NK</u>	T-Pulled <u>0140</u>
(E) Second Initial Flow <u>87</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0319</u>
(F) Second Final Flow <u>119</u>	<input checked="" type="checkbox"/> Mileage <u>126</u>	Comments
(G) Final Shut-In <u>1331</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2289</u>	<input type="checkbox"/> Straddle	
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	Total <u>1526</u>
	Sub Total <u>1526</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

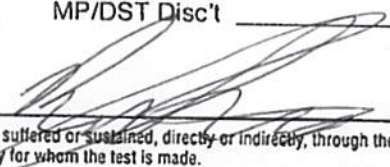
NO. 64407

Well Name & No. Frahm Unit #1-16 Test No. 5 Date 2/26/2018
 Company Val Energy, Inc Elevation 3333 KB 3328 GL
 Address 115 N Water St Ste 1110 Wichita, ks 67202
 Co. Rep / Geo. Tim Priest Rig WW #10
 Location: Sec. 16 Twp 8s Rge. 35w Co. Thomas State Ks

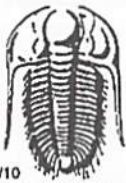
Interval Tested 4577-4605 Zone Tested Myric Station.
 Anchor Length 28' Drill Pipe Run 4444 Mud Wt. 9.2
 Top Packer Depth 4572 Drill Collars Run 122 Vis 50
 Bottom Packer Depth 4577 Wt. Pipe Run 0 WL 9.6
 Total Depth 4605 Chlorides 6000 ppm System LCM 2#
 Blow Description IF BOB @ 3 min built to 87"
ISF 2 1/2" return.
KF BOB @ 3 min built to 247"
FSF BOB @ 10 min. Gas to Surface @ 45 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>680</u>	<u>60</u>	<u>40</u>	<u>60</u>		
<u>120</u>	<u>ncw</u>		<u>90</u>	<u>10</u>	
	<u>Gas to Surface</u>				

Rec Total 800 BHT 141 Gravity 40 API RW 115 @ 82 °F Chlorides 37000 ppm
 (A) Initial Hydrostatic 2338 Test 1150 T-On Location 0900
 (B) First Initial Flow 56 Jars _____ T-Started 0958
 (C) First Final Flow 108 Safety Joint _____ T-Open 1123
 (D) Initial Shut-In 1344 Circ Sub used 50 T-Pulled 1423
 (E) Second Initial Flow 128 Hourly Standby _____ T-Out 1825
 (F) Second Final Flow 321 Mileage 159 126 Comments _____
 (G) Final Shut-In 1325 Sampler _____
 (H) Final Hydrostatic 2756 Straddle 250 Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 15 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 1576
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 60 Sub Total 1576

Approved By _____ Our Representative 

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64408

Well Name & No. Frahm Unit #1-16 Test No. 6 Date 2/27/2018
 Company Val Energy, Inc Elevation 3333 KB 3328 GL
 Address 115 N Water St Ste 1110 Wichita, ks 67202
 Co. Rep / Geo. Tim Priest Rig WW #10
 Location: Sec. 16 Twp 8s Rge. 35 w Co. Thomas State Ks

Interval Tested 4612-4670 Zone Tested Ft. Scott - Cherokee
 Anchor Length 58 Drill Pipe Run 4474 Mud Wt. 9.1
 Top Packer Depth 4607 Drill Collars Run 122 Vis 58
 Bottom Packer Depth 4612 Wt. Pipe Run Ø WL 9.6
 Total Depth 4670 Chlorides 6,000 ppm System LCM 2#

Blow Description IF 1/2" blow
ISI No return.
FF 1" blow
FST No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>0cm</u>		<u>10</u>		<u>90</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>35' GIP</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

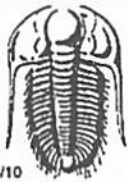
Rec Total 25 BHT 125 Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic 2351 Test 1150 T-On Location 1300
 (B) First Initial Flow 14 Jars — T-Started 0318
 (C) First Final Flow 20 Safety Joint — T-Open 0508
 (D) Initial Shut-In 98 Circ Sub N/C T-Pulled 0708
 (E) Second Initial Flow 18 Hourly Standby — T-Out 0852
 (F) Second Final Flow 23 Mileage 159 126 Comments —
 (G) Final Shut-In 68 Sampler —
 (H) Final Hydrostatic 2339 Straddle —
 Ruined Shale Packer —
 Ruined Packer —
 Extra Copies —
 Sub Total 0
 Total 1526
 MP/DST Disc't —

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 1526

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TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64409

Well Name & No. Frahm Unit #1-16 Test No. 7 Date 2/27/2018
 Company Val Energy, Inc Elevation 3333 KB 3328 GL
 Address 115 N Water St Ste 1110 Wichita, KS 67202
 Co. Rep / Geo. Tim Priest Rig WW #10
 Location: Sec. 16 Twp S9 Rge. 35W Co. Thomas State KS

Interval Tested 4612-4670⁴⁶⁶¹⁻ 4705 Zone Tested Johnson
 Anchor Length 58' 44' Drill Pipe Run 4534 Mud Wt. 9.1
 Top Packer Depth 4656 Drill Collars Run 122 Vis 58
 Bottom Packer Depth 4661 Wt. Pipe Run 0 WL 10.4
 Total Depth 4705 Chlorides 6400 ppm System LCM 2#
 Blow Description IF BOB @ 5 min Built to 51".
TSI No return.
FF BOB @ 7 min Built to 42".
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>oil</u>	<u>100</u>			
<u>U79</u>	<u>ncw</u>		<u>97</u>	<u>3</u>	
	<u>od spots Throughout</u>				

Rec Total 1180 BHT 142 Gravity — API RW — @ — °F Chlorides 64000 ppm

(A) Initial Hydrostatic 2392 Test 1150 T-On Location 1530
 (B) First Initial Flow 55 Jars _____ T-Started 1553
 (C) First Final Flow 344 Safety Joint _____ T-Open 1759
 (D) Initial Shut-In 1403 Circ Sub 4/c T-Pulled 2044
 (E) Second Initial Flow 352 Hourly Standby _____ T-Out 2316
 (F) Second Final Flow 562 Mileage 159 126 Comments _____
 (G) Final Shut-In 1396 Sampler _____
 (H) Final Hydrostatic 2291 Straddle _____
 Shale Packer 250 Ruined Shale Packer 350
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies 350
 Initial Open 30 Day Standby _____ Sub Total 350
 Initial Shut-In 45 Accessibility _____ Total 1876
 Final Flow 30 Sub Total 1526 MP/DST Disc't _____
 Final Shut-In 60

Approved By _____

Our Representative _____

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