

Form	ACO1 - Well Completion
Operator	Woolsey Operating Company, LLC
Well Name	BROWN A 1
Doc ID	1467719

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.75	10.75	32	276	60/40	260	see ticket

TREATMENT REPORT

Time	Casing Pressure	Tubing Pressure	Bbls Pumped	Rate	Service Log
7:00pm					On Location / Safety meetings
Pauk & Shawlin			Larry C. Shuler		260 SK bolts Poz, 3% H ₂ O + 1/4 HCF 14.8 pps, 1,21 Voids, S.I.B Wgr
7:45pm	100		3	5	Pump 3 bbls wgr.
	100		56	5	Mix 260 SK Cement
	100		25	3	D.S place water
8:15am					Shut down
					Shut in
					Cement dia Circula - 10 bbls
					Job complete / Drilling crew
					Thank you!!



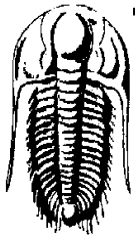
Customer WOOLSEY OPER		Lease No. WOOLSEY OPERATING		Date 8-2-2019	
Lease BROWN 'A'		Well # 8-19			
Field Order # 10160	Station PRATT, KS.	Casing	Depth	County BARBER	State KS
Type Job P.T.A.			Formation 12/160	Legal Description 2-345-12W	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft			RATE	PRESS	ISIP
4 1/2" O.D.				CMT-210SK 60/40POZ			
Depth	Depth	From	To	Pre Pad @ 1.43 CU FT	Max		5 Min.
Volume	Volume	From	To	Pad	Min		10 Min.
Max Press	Max Press	From	To	Frac	Avg		15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative	GALEN R.	Station Manager	JUSTIN W.	Treater	KEVEN C.
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Service Units	960217	77686	866779	70959	19860						
Driver Names	LESLIE	McGraw	—	DIAZ	—						

[illegible]



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

2-34S-12W Barber

Brown 1 A

Job Ticket: 65886

DST#: 1

Test Start: 2019.07.28 @ 16:23:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:59:17

Time Test Ended: 00:51:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 74

Interval: 4610.00 ft (KB) To 4704.00 ft (KB) (TVD)

Total Depth: 4704.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1517.00 ft (KB)

1504.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 8672 Inside

Press@RunDepth: 27.20 psig @ 4611.00 ft (KB)

Start Date: 2019.07.28

End Date:

2019.07.29

Start Time: 16:23:01

End Time:

00:51:02

Capacity: psig

Last Calib.: 2019.07.29

Time On Btm: 2019.07.28 @ 18:58:32

Time Off Btm: 2019.07.28 @ 22:31:47

TEST COMMENT: IF: Weak Blow, Dead @ 20 minutes

IS: No Blow Back

FF: No Blow

FS: No Blow Back

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2329.22	112.48	Initial Hydro-static
1	22.90	111.62	Open To Flow (1)
31	25.57	112.63	Shut-In(1)
92	41.66	113.96	End Shut-In(1)
92	26.98	113.97	Open To Flow (2)
122	27.20	114.52	Shut-In(2)
212	37.42	115.95	End Shut-In(2)
214	2261.69	117.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

Gas Rates

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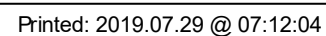


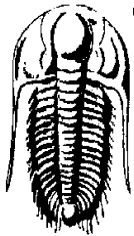
Test Start: 2019.07.28 @ 16:23:00

KB to GR/CF: 13.00 ft

Time Off Btm:

FSI: No Blow Back





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

2-34S-12W Barber

125 N Market Ste 1000
Wichita, KS 67202

Brown 1 A

Job Ticket: 65886

DST#: 1

ATTN: Bill Klaver

Test Start: 2019.07.28 @ 16:23:00

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: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	0.025

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:

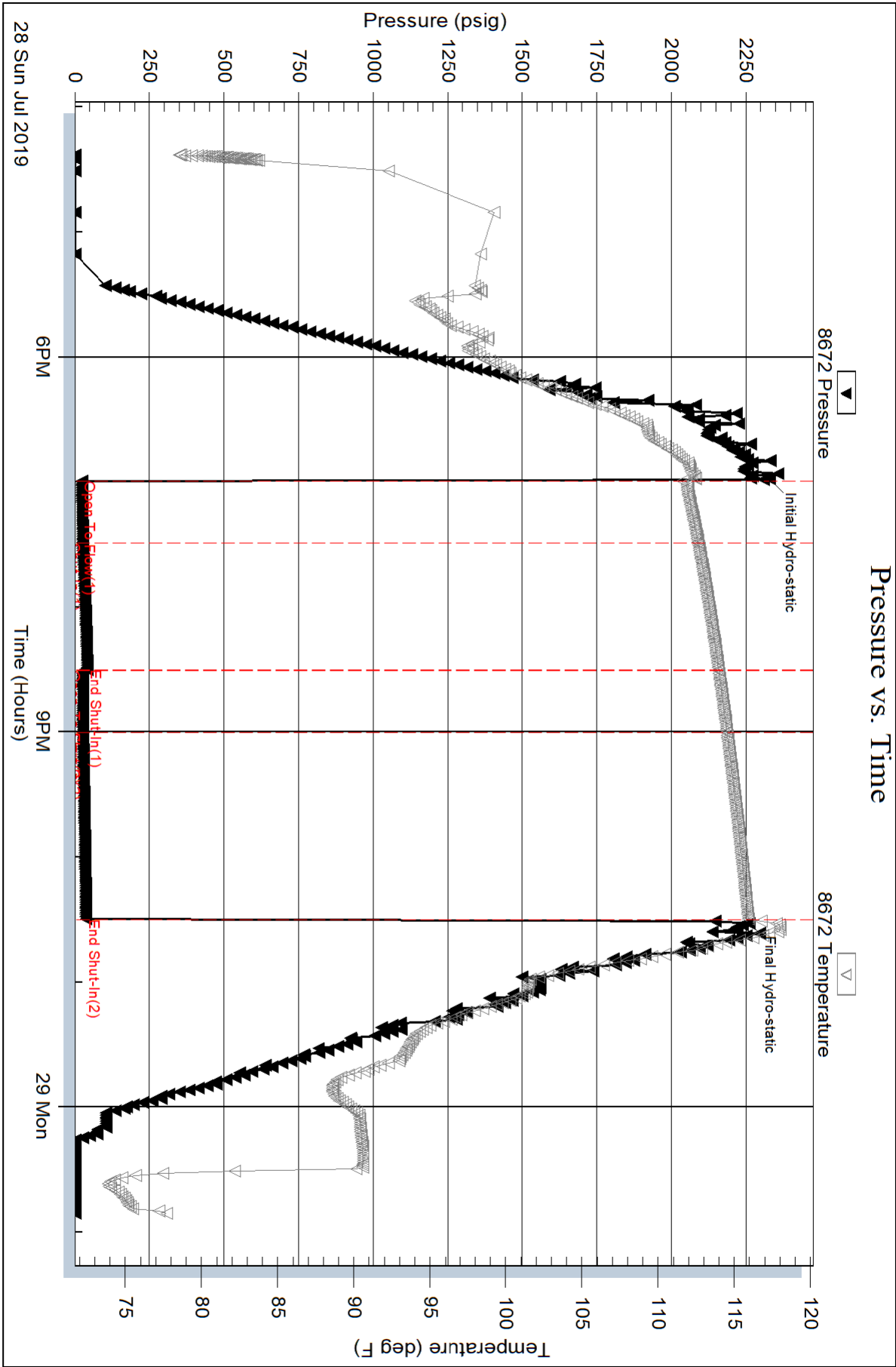
Serial #: 8672

Inside

Woodsey Operating Co

Brown 1 A

DST Test Number: 1

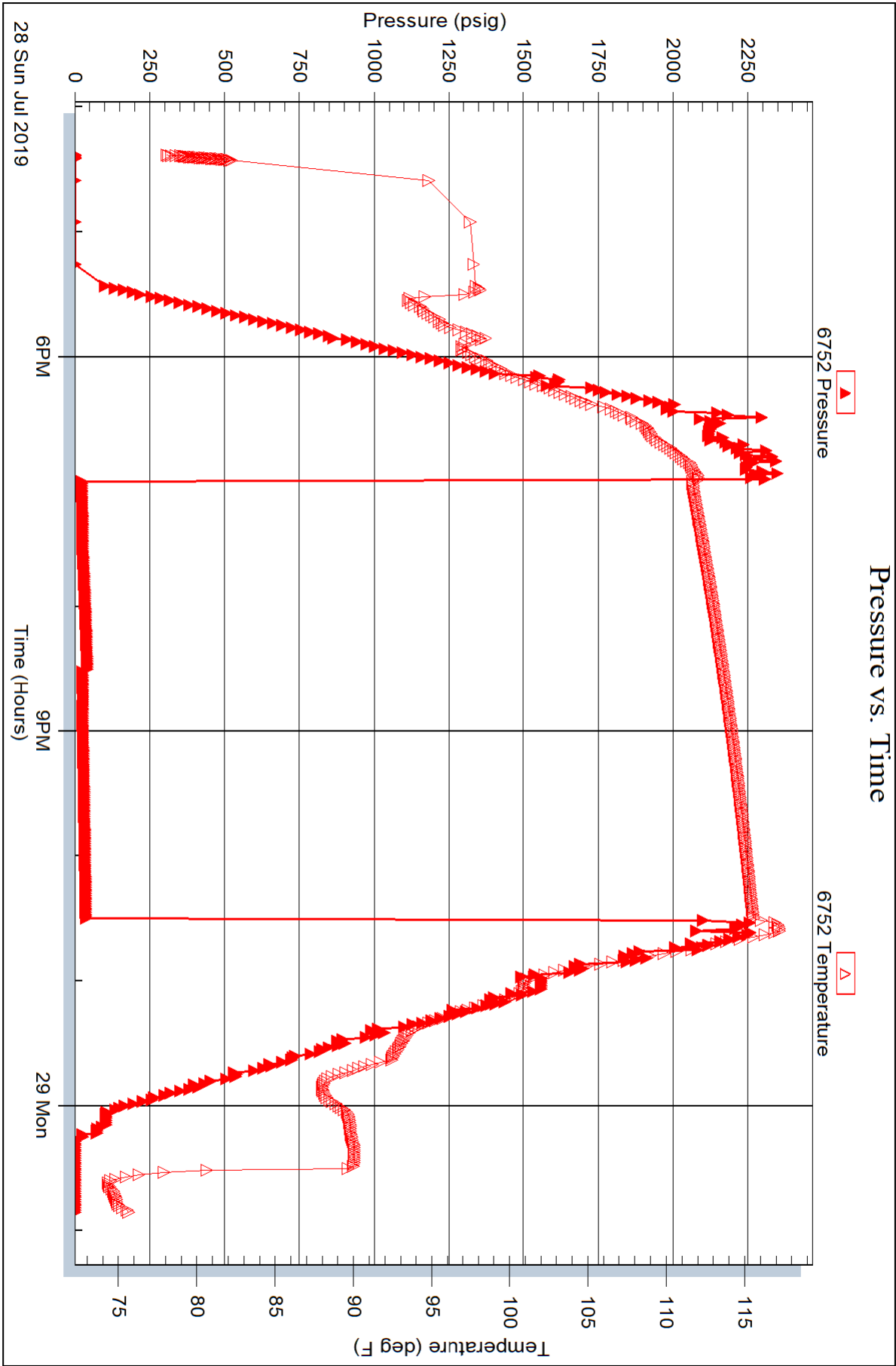


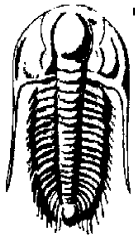
Serial #: 6752

Outside Woodsey Operating Co

Brown 1 A

DST Test Number: 1





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co

2-34S-12W Barber

125 N Market Ste 1000
Wichita, KS 67202

Brown 1 A

Job Ticket: 65887

DST#: 2

ATTN: Bill Klaver

Test Start: 2019.07.29 @ 16:07:00

GENERAL INFORMATION:

Formation: **Mississippi Osage**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:11:32

Time Test Ended: 01:02:47

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: **4795.00 ft (KB) To 4825.00 ft (KB) (TVD)**

Total Depth: 4825.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1517.00 ft (KB)

1504.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 8672 Inside

Press@RunDepth: 99.52 psig @ 4796.00 ft (KB)

Start Date: 2019.07.29

End Date:

2019.07.30

Start Time: 16:07:01

End Time:

01:02:47

Capacity: psig

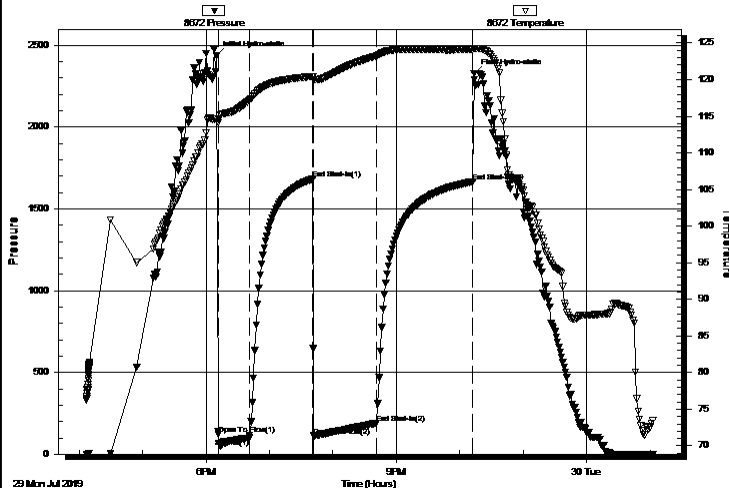
Last Calib.: 2019.07.30

Time On Btm: 2019.07.29 @ 18:10:02

Time Off Btm: 2019.07.29 @ 22:13:32

TEST COMMENT: IF: Strong Blow , BOB in 2 minutes, Built to 87 inches
IS: Weak Surface Blow Back
FF: Strong Blow , BOB in 8 minutes, Built to 119 inches
FS: No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2435.82	114.66	Initial Hydro-static
2	120.37	114.12	Open To Flow (1)
31	99.52	117.21	Shut-In(1)
91	1683.22	120.39	End Shut-In(1)
92	111.54	119.98	Open To Flow (2)
152	189.75	123.23	End Shut-In(2)
243	1667.22	124.09	End Shut-In(3)
244	2325.66	124.22	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1625 GIP	0.00
312.00	Water	2.71
70.00	OMCW 10%O 14%M 76%W	0.98

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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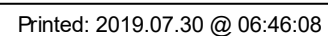
* Recovery from multiple tests

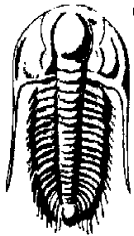


Test Start: 2019.07.29 @ 16:07:00

KB to GR/CF: 13.00 ft

TEST COMMENT: IF: Strong Blow , BOB in 2 minutes, Built to 87 inches
IS: Weak Surface Blow Back
FF: Strong Blow , BOB in 8 minutes, Built to 119 inches
FS: No Blow Back





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

2-34S-12W Barber

125 N Market Ste 1000
Wichita, KS 67202

Brown 1 A

Job Ticket: 65887

DST#: 2

ATTN: Bill Klaver

Test Start: 2019.07.29 @ 16:07:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 68.00 sec/qt

Water Loss: 9.59 in³

Resistivity: ohm.m

Salinity: 6000.00 ppm

Filter Cake: 0.02 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

deg API

Water Salinity: 62000 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1625 GIP	0.000
312.00	Water	2.709
70.00	OMCW 10%O 14%M 76%W	0.982

Total Length: 382.00 ft Total Volume: 3.691 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .1 @ 85 degrees

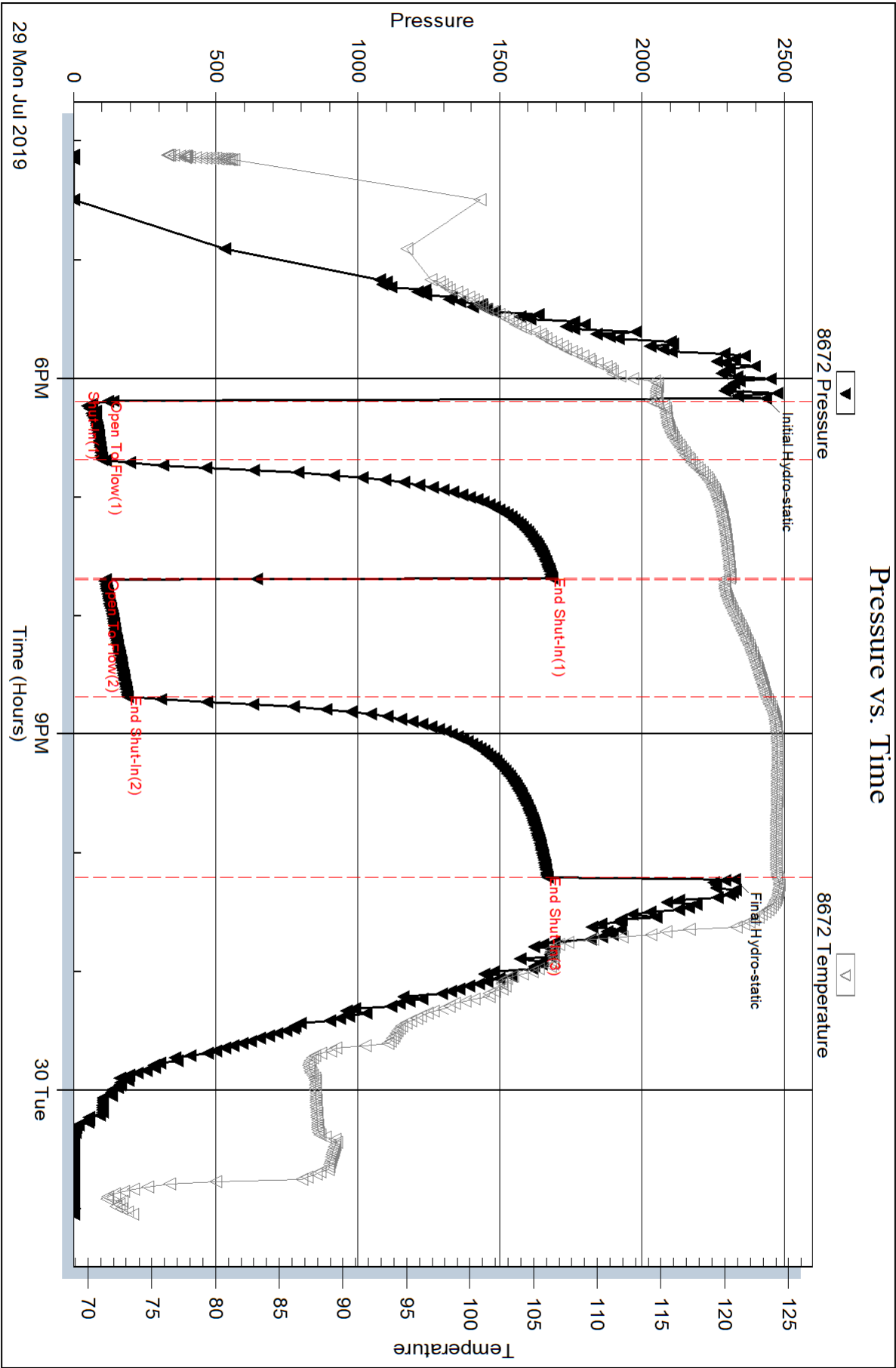
Serial #: 8672

Inside

Woodsey Operating Co

Brown 1 A

DST Test Number: 2

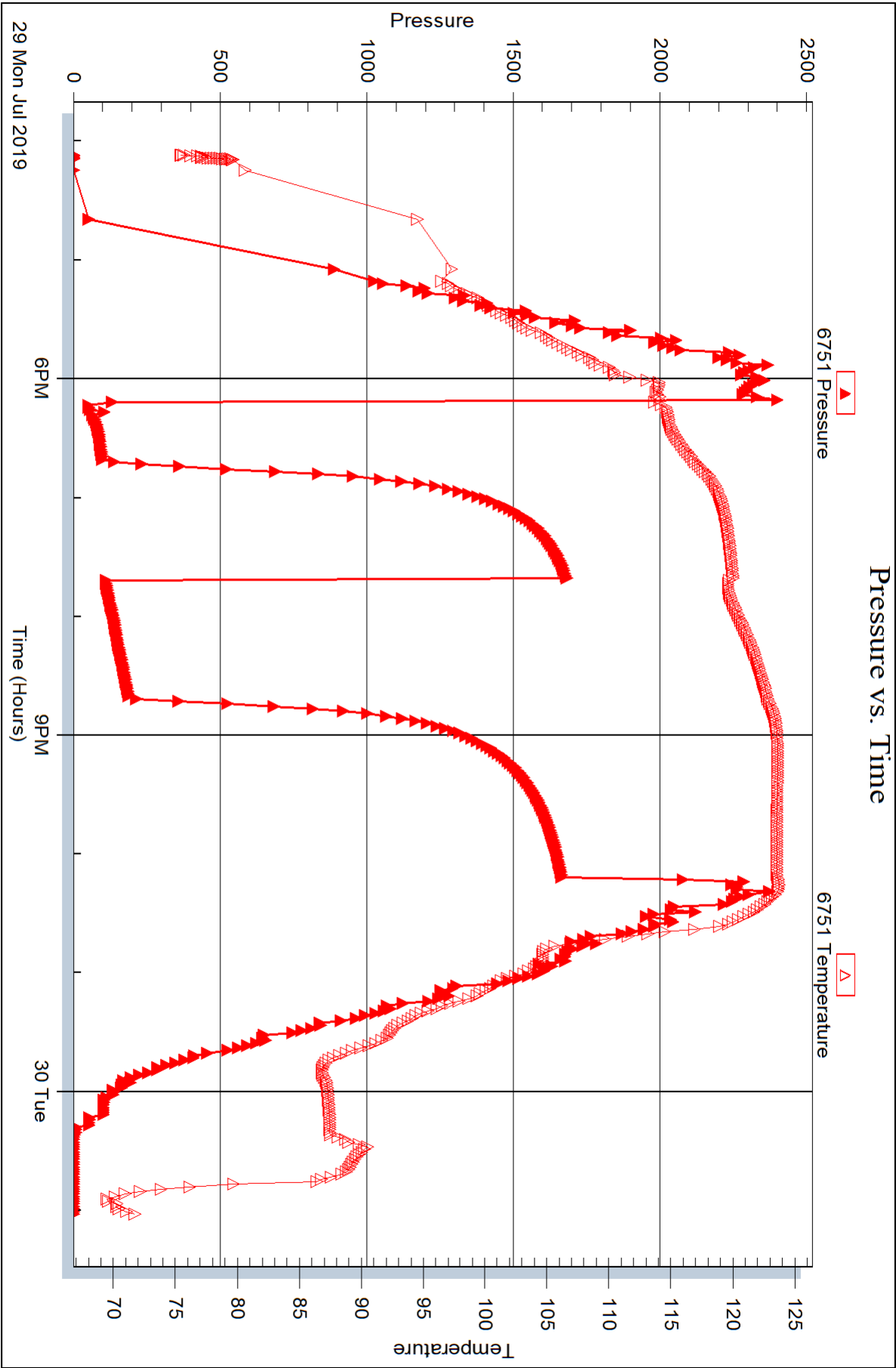


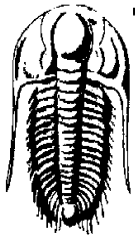
Serial #: 6751

Outside Woodsey Operating Co

Brown 1 A

DST Test Number: 2





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co

2-34S-12W Barber

125 N Market Ste 1000
Wichita, KS 67202

Brown 1 A

Job Ticket: 65888

DST#: 3

ATTN: Bill Klaver

Test Start: 2019.07.30 @ 16:24:00

GENERAL INFORMATION:

Formation: **Misner**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:49:47

Time Test Ended: 00:10:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 5046.00 ft (KB) To 5058.00 ft (KB) (TVD)

Total Depth: 5058.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1517.00 ft (KB)

1504.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 8672 Inside

Press@RunDepth: 731.69 psig @ 5047.00 ft (KB)

Start Date: 2019.07.30

End Date:

2019.07.31

Start Time: 16:24:01

End Time:

00:10:02

Capacity: psig

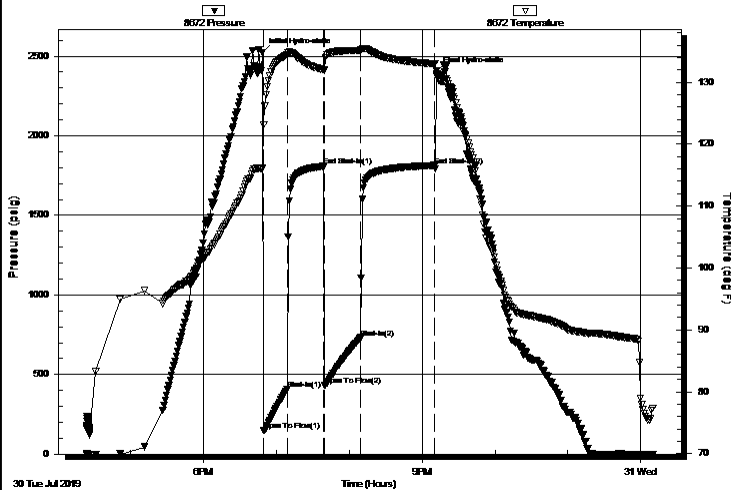
Last Calib.: 2019.07.31

Time On Btm: 2019.07.30 @ 18:48:47

Time Off Btm: 2019.07.30 @ 21:12:02

TEST COMMENT: IF: Strong Blow , BOB in 1 minute, Built to 109 inches
IS: Blow Back Built to 10 inches
FF: Strong Blow , BOB in 4 minutes, Built to 81 inches
FS: Blow Back Built to 11 inches

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2521.80	116.12	Initial Hydro-static
1	151.46	123.15	Open To Flow (1)
21	408.73	134.40	Shut-In(1)
51	1808.55	132.04	End Shut-In(1)
51	431.09	131.87	Open To Flow (2)
81	731.69	135.15	Shut-In(2)
142	1813.97	132.96	End Shut-In(2)
144	2405.04	131.07	Final Hydro-static

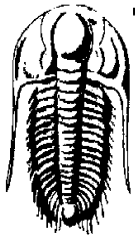
Recovery

Length (ft)	Description	Volume (bbl)
0.00	1323 GIP	0.00
1260.00	Water	16.01
193.00	OMCW 10%O 20%M 70%W	2.71
4.00	MOCW 12%M 40%O 48%W	0.06

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

2-34S-12W Barber

Brown 1 A

Job Ticket: 65888

DST#: 3

Test Start: 2019.07.30 @ 16:24:00

GENERAL INFORMATION:

Formation: **Misner**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:49:47

Time Test Ended: 00:10:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 5046.00 ft (KB) To 5058.00 ft (KB) (TVD)

Reference Elevations: 1517.00 ft (KB)

Total Depth: 5058.00 ft (KB) (TVD)

1504.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

Serial #: 6751 Outside

Press@RunDepth: psig @ 5047.00 ft (KB)

Capacity: psig

Start Date: 2019.07.30

End Date:

2019.07.31

Last Calib.:

2019.07.31

Start Time: 16:24:01

End Time:

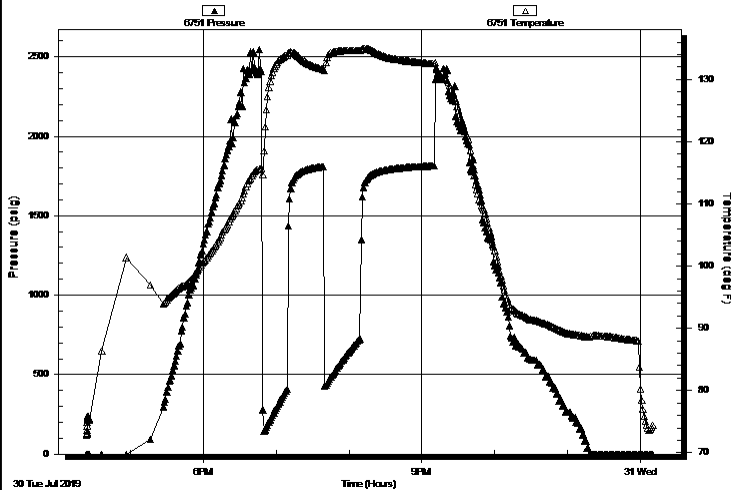
00:10:02

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 1 minute, Built to 109 inches
IS: Blow Back Built to 10 inches
FF: Strong Blow , BOB in 4 minutes, Built to 81 inches
FS: Blow Back Built to 11 inches

Pressure vs. Time



PRESSURE SUMMARY

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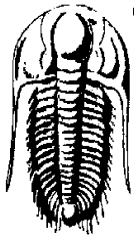
Recovery

Length (ft)	Description	Volume (bbl)
0.00	1323 GIP	0.00
1260.00	Water	16.01
193.00	OMCW 10%O 20%M 70%W	2.71
4.00	MOCW 12%M 40%O 48%W	0.06

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

2-34S-12W Barber

125 N Market Ste 1000
Wichita, KS 67202

Brown 1 A

Job Ticket: 65888

DST#: 3

ATTN: Bill Klaver

Test Start: 2019.07.30 @ 16:24:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 72.00 sec/qt

Water Loss: 10.39 in³

Resistivity: ohm.m

Salinity: 5000.00 ppm

Filter Cake: 0.02 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity: 59000 ppm

deg API

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1323 GIP	0.000
1260.00	Water	16.007
193.00	OMCW 10%O 20%M 70%W	2.707
4.00	MOCW 12%M 40%O 48%W	0.056

Total Length: 1457.00 ft Total Volume: 18.770 bbl

Num Fluid Samples: 0

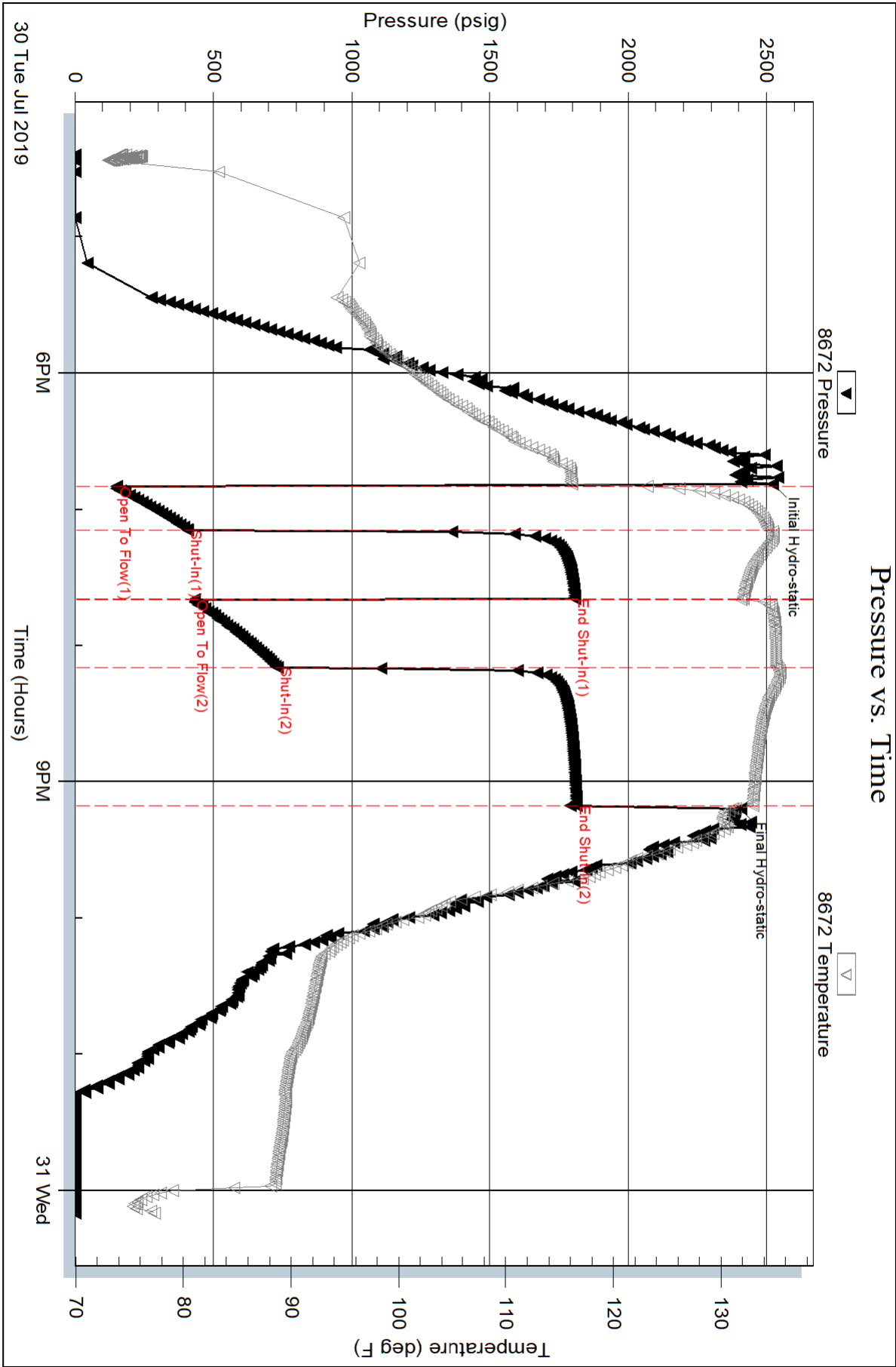
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .11 @ 84 degrees

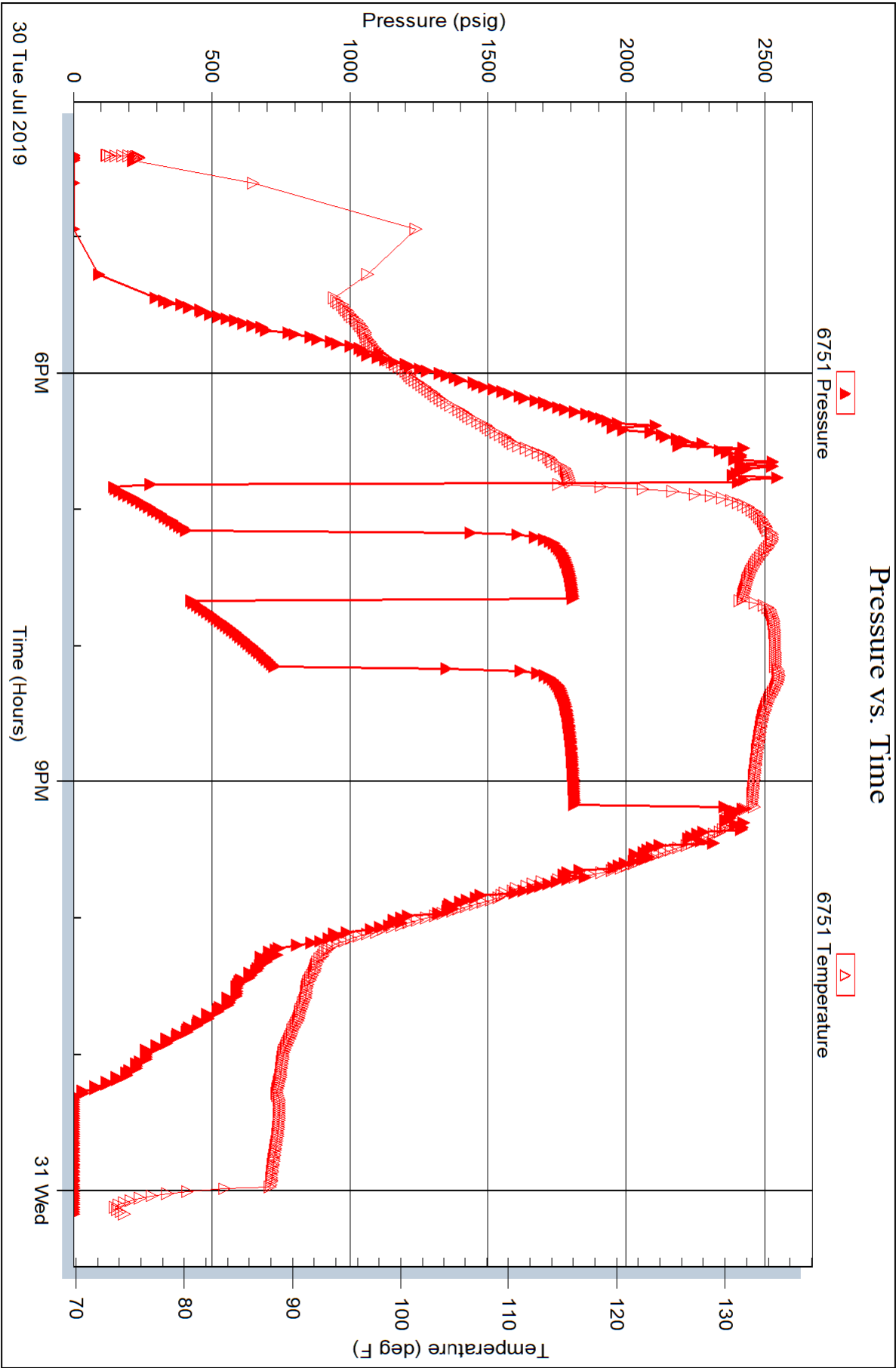


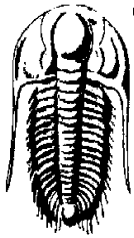
Serial #: 6751

Outside Woodsey Operating Co

Brown 1 A

DST Test Number: 3





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

2-34S-12W Barber

Brown 1 A

Job Ticket: 65889

DST#: 4

Test Start: 2019.07.31 @ 14:37:00

GENERAL INFORMATION:

Formation: **Simpson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:58:32

Time Test Ended: 22:41:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 5157.00 ft (KB) To 5183.00 ft (KB) (TVD)

Total Depth: 5183.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1517.00 ft (KB)

1504.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 8672 Inside

Press@RunDepth: 1674.22 psig @ 5158.00 ft (KB)

Start Date: 2019.07.31

End Date:

2019.07.31

Start Time: 14:37:01

End Time:

22:41:02

Capacity: psig

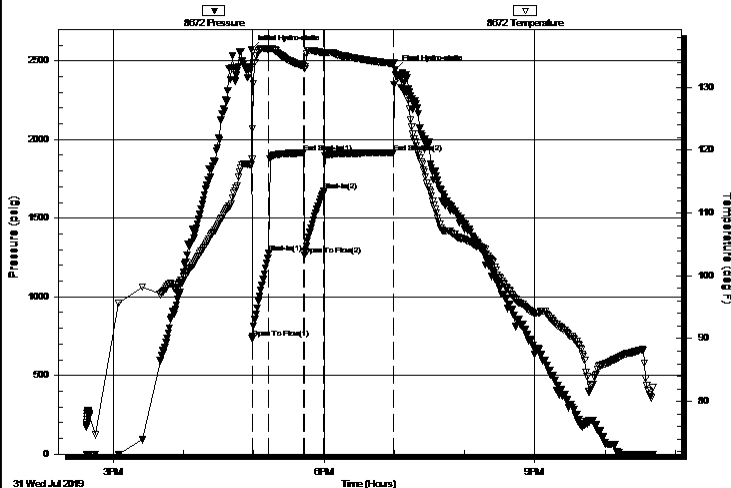
Last Calib.: 2019.07.31

Time On Btm: 2019.07.31 @ 16:57:47

Time Off Btm: 2019.07.31 @ 19:01:02

TEST COMMENT: IF: Strong Blow , BOB in 1 minute, Built to 272 inches
IS: Blow Back Built to 3 inches
FF: Strong Blow , BOB in 1 minute, Built to 275 inches
FS: Blow Back Built to 9 inches

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2573.64	117.73	Initial Hydro-static
1	735.13	118.54	Open To Flow (1)
15	1279.54	136.10	Shut-In (1)
45	1915.16	133.40	End Shut-In (1)
46	1267.19	133.03	Open To Flow (2)
62	1674.22	135.53	Shut-In (2)
122	1917.02	133.79	End Shut-In (2)
124	2444.32	131.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	660 GIP	0.00
2961.00	Water	39.87
345.00	WCM 40%W 60%M	4.84

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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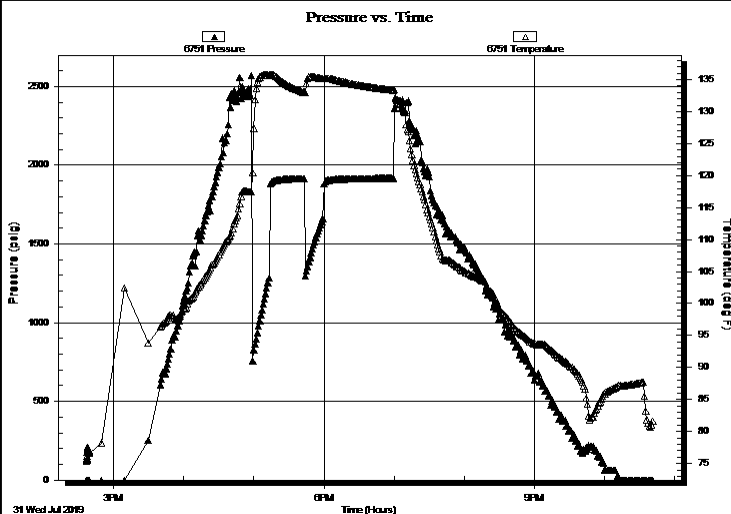
* Recovery from multiple tests



Test Start: 2019.07.31 @ 14:37:00

KB to GR/CF: 13.00 ft

TEST COMMENT: IF: Strong Blow , BOB in 1 minute, Built to 272 inches
IS: Blow Back Built to 3 inches
FF: Strong Blow , BOB in 1 minure, Built to 275 inches
FS: Blow Back Built to 9 inches



PRESSURE SUMMARY

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

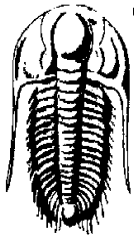
Recovery

Length (ft)	Description	Volume (bbl)
0.00	660 GIP	0.00
2961.00	Water	39.87
345.00	WCM 40%W 60%M	4.84

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

2-34S-12W Barber

125 N Market Ste 1000
Wichita, KS 67202

Brown 1 A

Job Ticket: 65889

DST#: 4

ATTN: Bill Klaver

Test Start: 2019.07.31 @ 14:37:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 10.79 in³

Resistivity: ohm.m

Salinity: 7000.00 ppm

Filter Cake: 0.02 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

deg API

Water Salinity: 62000 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	660 GIP	0.000
2961.00	Water	39.868
345.00	WCM 40%W 60%M	4.839

Total Length: 3306.00 ft Total Volume: 44.707 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .1 @ 86 degrees

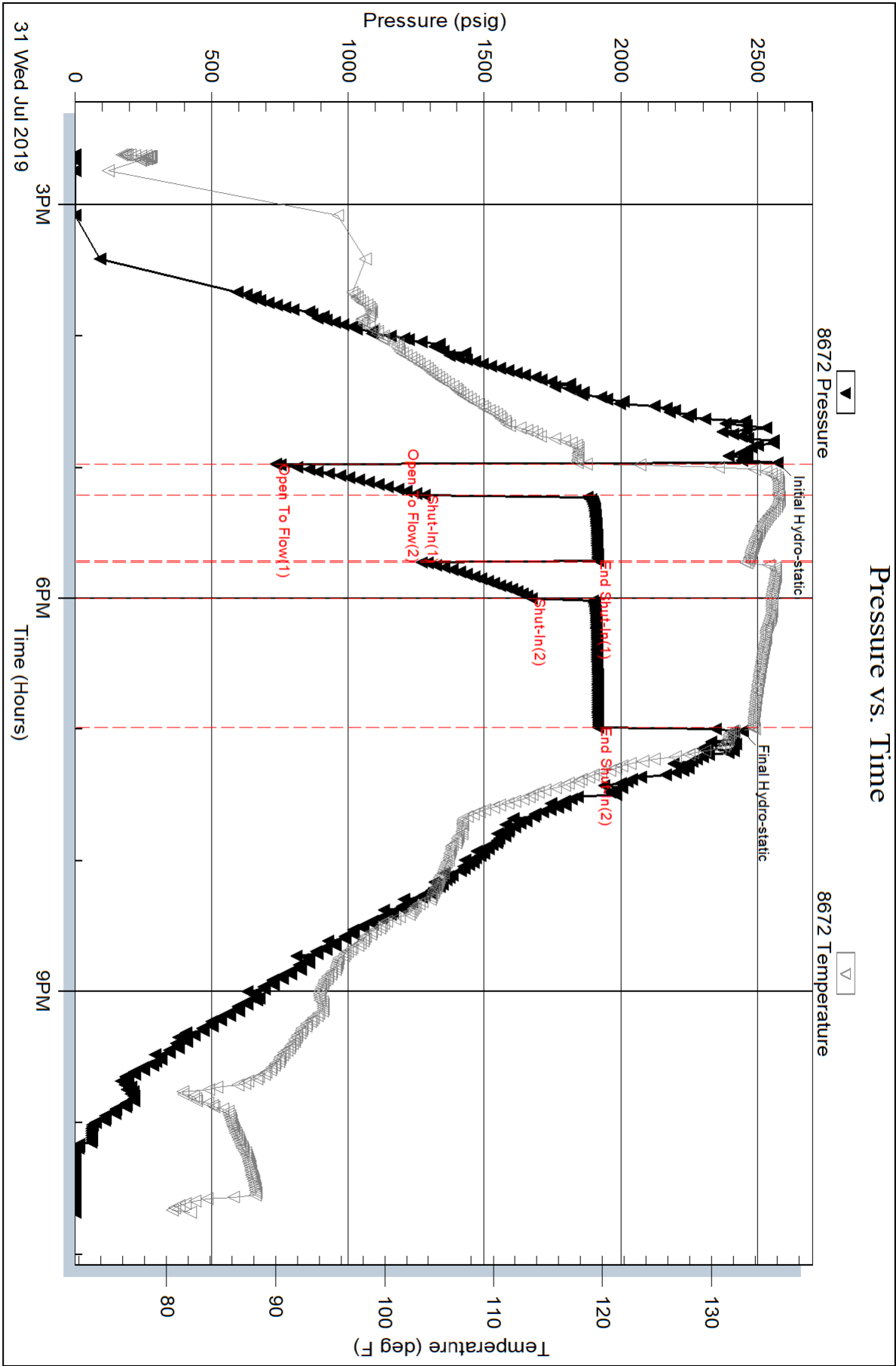
Serial #: 8672

Inside

Woodsey Operating Co

Brown 1 A

DST Test Number: 4



Serial #: 6751

Outside Woodsey Operating Co

Brown 1 A

DST Test Number: 4

