



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co, Inc.**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Kopriva #1-4

14-2s-35w Rawlins,KS

Start Date: 2017.06.13 @ 00:10:00

End Date: 2017.06.13 @ 07:58:15

Job Ticket #: 61370 DST #: 1

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

Printed: 2017.06.20 @ 10:37:45

Murfin Drilling Co, Inc. 14-2s-35w Rawlins,KS Kopriva #1-4 DST # 1 Oread 2017.06.13



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.
250 N Water Ste 300
Wichita, KS 67202
ATTN: Rocky Milford

14-2s-35w Rawlins,KS

Kopriva #1-4

Job Ticket: 61370

DST#: 1

Test Start: 2017.06.13 @ 00:10:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:57:30

Time Test Ended: 07:58:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 3993.00 ft (KB) To 4057.00 ft (KB) (TVD)

Reference Elevations: 3201.00 ft (KB)

Total Depth: 4057.00 ft (KB) (TVD)

3196.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8845 Outside

Press@RunDepth: 18.33 psig @ 3994.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.13

End Date:

2017.06.13

Last Calib.: 2017.06.13

Start Time: 00:10:05

End Time:

07:58:14

Time On Btm: 2017.06.13 @ 02:57:15

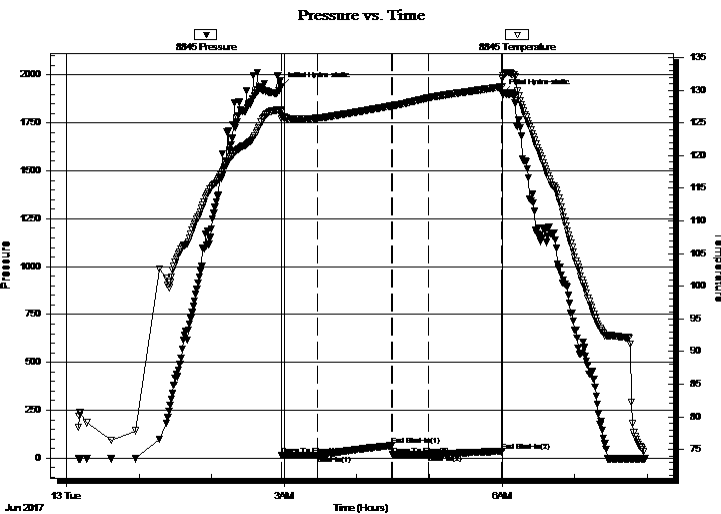
Time Off Btm: 2017.06.13 @ 06:00:15

TEST COMMENT: IF: Surface blow , died @ 15 min.

IS: No return.

FF: No blow .

FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1937.59	126.85	Initial Hydro-static
1	15.25	125.70	Open To Flow (1)
30	16.58	125.75	Shut-In(1)
92	65.01	127.62	End Shut-In(1)
92	17.10	127.61	Open To Flow (2)
122	18.33	128.83	Shut-In(2)
183	35.36	130.53	End Shut-In(2)
183	1900.47	131.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100m	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61370

DST#: 1

ATTN: Rocky Milford

Test Start: 2017.06.13 @ 00:10:00

Tool Information

Drill Pipe:	Length: 3777.00 ft	Diameter: 3.80 inches	Volume: 52.98 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: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 53.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3993.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	91.00 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			3967.00	
Shut In Tool	5.00			3972.00	
Hydraulic tool	5.00			3977.00	
Jars	5.00			3982.00	
Safety Joint	2.00			3984.00	
Packer	5.00			3989.00	27.00 Bottom Of Top Packer
Packer	4.00			3993.00	
Stubb	1.00			3994.00	
Recorder	0.00	8365	Inside	3994.00	
Recorder	0.00	8845	Outside	3994.00	
Perforations	27.00			4021.00	
Change Over Sub	1.00			4022.00	
Drill Pipe	31.00			4053.00	
Change Over Sub	1.00			4054.00	
Bullnose	3.00			4057.00	64.00 Bottom Packers & Anchor

Total Tool Length: 91.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61370

DST#: 1

ATTN: Rocky Milford

Test Start: 2017.06.13 @ 00:10:00

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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

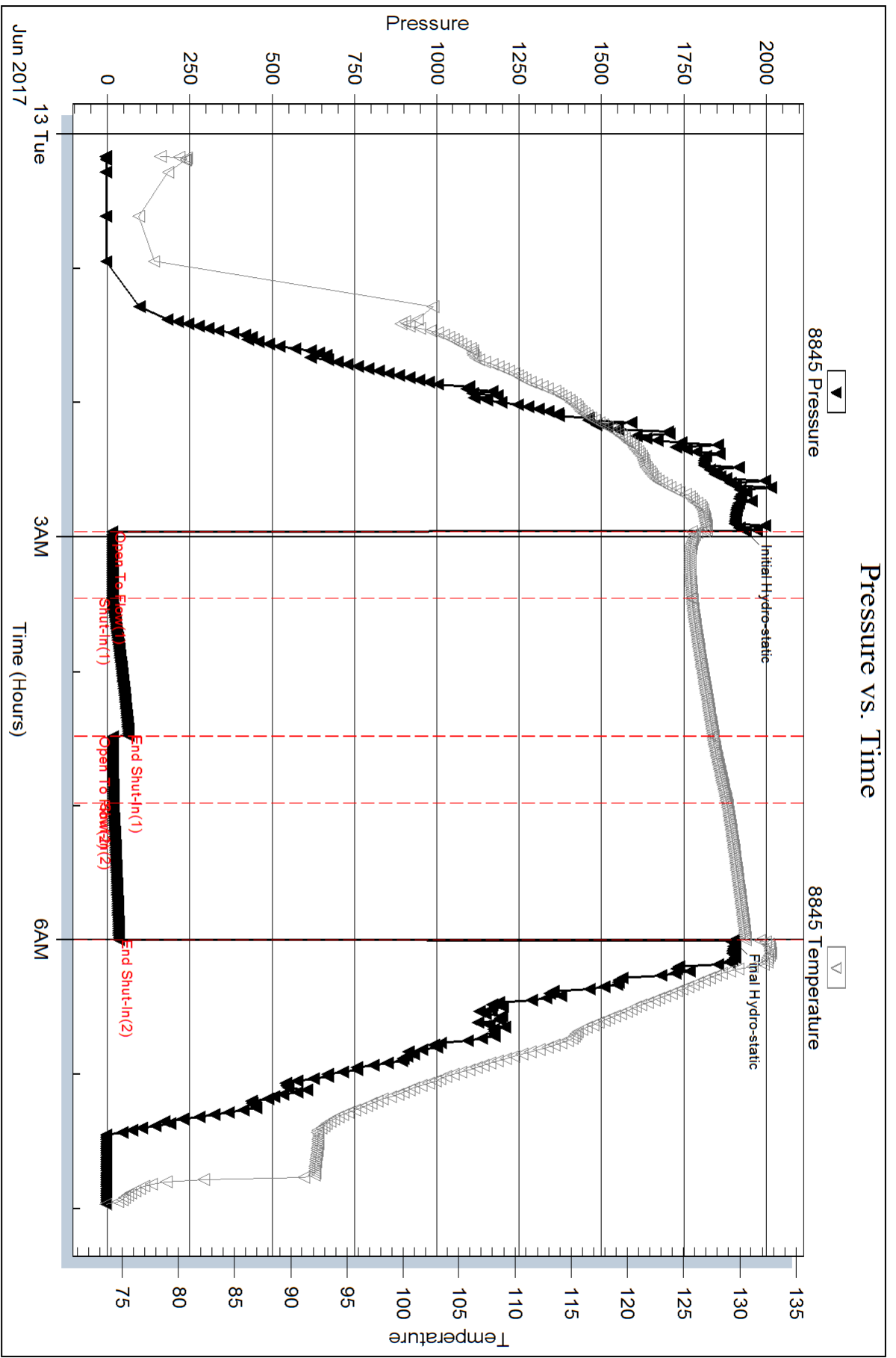
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



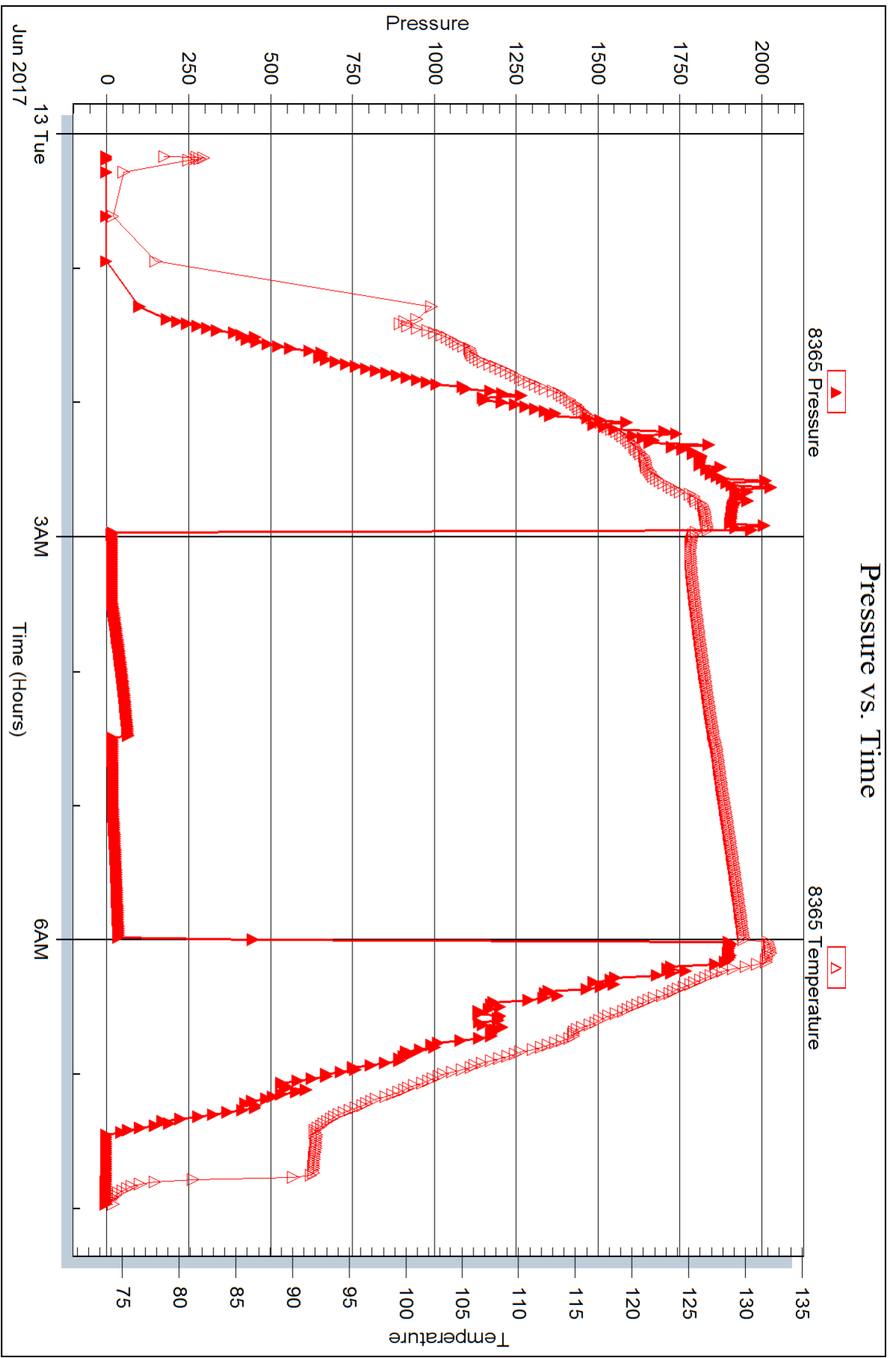
Serial #: 8365

Inside

Murfin Drilling Co, Inc.

Kopriva#1-4

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co, Inc.**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Kopriva #1-4

14-2s-35w Rawlins,KS

Start Date: 2017.06.13 @ 19:46:00

End Date: 2017.06.14 @ 04:46:30

Job Ticket #: 61371 DST #: 2

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

Printed: 2017.06.20 @ 10:37:16



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61371

DST#: 2

ATTN: Rocky Milford

Test Start: 2017.06.13 @ 19:46:00

GENERAL INFORMATION:

Formation: **LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:05:45

Time Test Ended: 04:46:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4074.00 ft (KB) To 4148.00 ft (KB) (TVD)

Reference Elevations: 3201.00 ft (KB)

Total Depth: 4148.00 ft (KB) (TVD)

3196.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8845 Outside

Press@RunDepth: 143.99 psig @ 4075.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.13

End Date:

2017.06.14

Last Calib.: 2017.06.14

Start Time: 19:46:05

End Time:

04:46:30

Time On Btm: 2017.06.13 @ 22:05:30

Time Off Btm: 2017.06.14 @ 02:08:00

TEST COMMENT: IF: 3 1/2" blow after bleed off. tool slid 10' picked up some mud.

IS: No return.

FF: 9 1/2" blow.

FS: 1/2" return, died @ 60 min.

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1994.48	123.11	Initial Hydro-static
1	72.92	122.20	Open To Flow (1)
31	111.45	124.89	Shut-In(1)
91	1156.80	128.14	End Shut-In(1)
91	118.94	127.81	Open To Flow (2)
149	143.99	130.10	Shut-In(2)
241	1128.96	133.58	End Shut-In(2)
243	1949.21	133.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	gocm 10g 30o 60m	0.59
100.00	gocm 10g 40o 50m	0.63
60.00	oil 100o	0.84
0.00	140' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61371

DST#: 2

ATTN: Rocky Milford

Test Start: 2017.06.13 @ 19:46:00

Tool Information

Drill Pipe:	Length: 3870.00 ft	Diameter: 3.80 inches	Volume: 54.29 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:	30000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose:	74000.00 lb
			<u>Total Volume: 55.30 bbl</u>	Tool Chased	10.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	4074.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	74.00 ft				
Tool Length:	101.00 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			4048.00	
Shut In Tool	5.00			4053.00	
Hydraulic tool	5.00			4058.00	
Jars	5.00			4063.00	
Safety Joint	2.00			4065.00	
Packer	5.00			4070.00	27.00 Bottom Of Top Packer
Packer	4.00			4074.00	
Stubb	1.00			4075.00	
Recorder	0.00	8365	Inside	4075.00	
Recorder	0.00	8845	Outside	4075.00	
Perforations	5.00			4080.00	
Change Over Sub	1.00			4081.00	
Drill Pipe	63.00			4144.00	
Change Over Sub	1.00			4145.00	
Bullnose	3.00			4148.00	74.00 Bottom Packers & Anchor

Total Tool Length: 101.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61371

DST#: 2

ATTN: Rocky Milford

Test Start: 2017.06.13 @ 19:46:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

21 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	gocm 10g 30o 60m	0.590
100.00	gocm 10g 40o 50m	0.628
60.00	oil 100o	0.842
0.00	140' GIP	0.000

Total Length: 280.00 ft Total Volume: 2.060 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

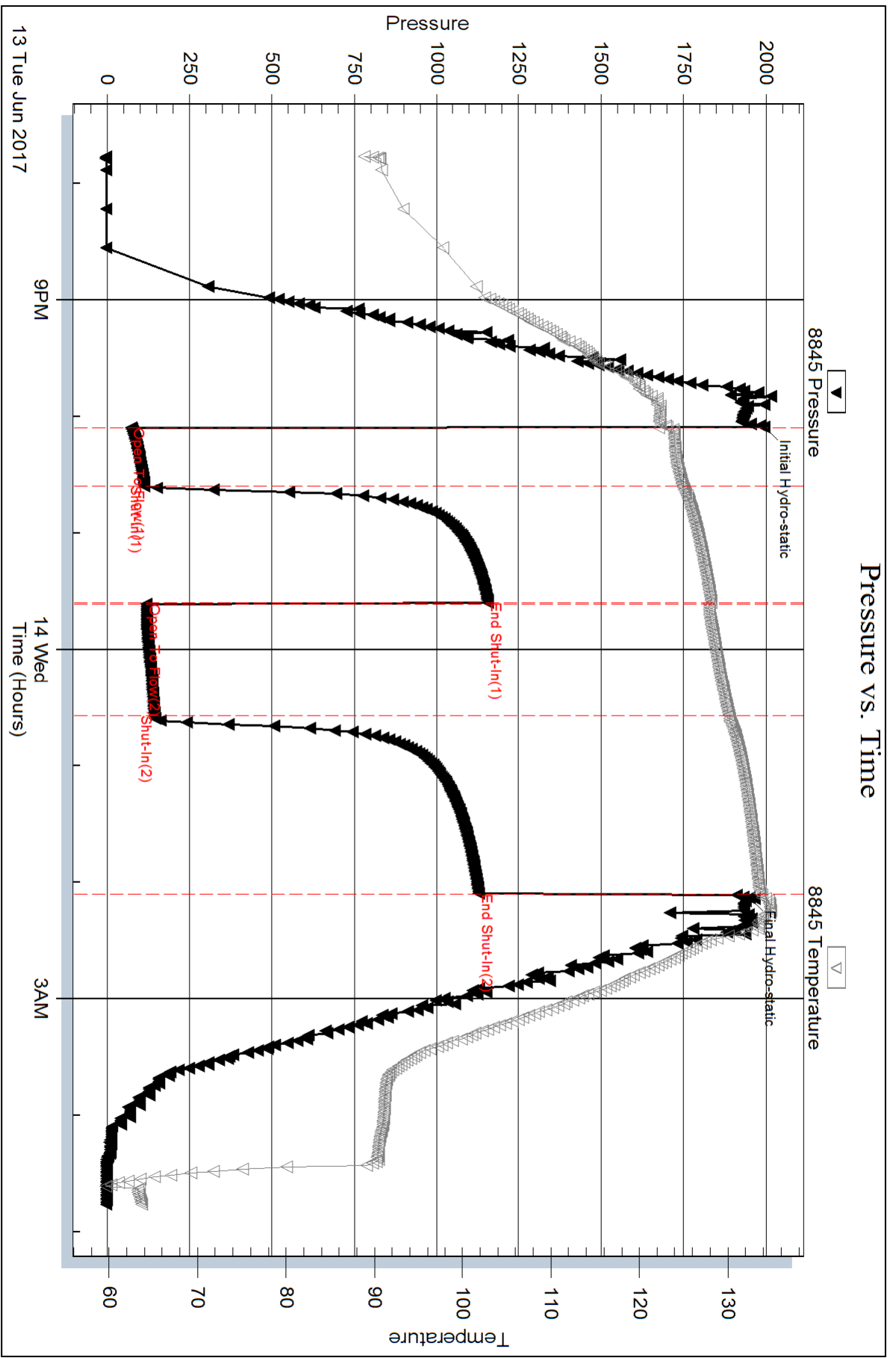
Recovery Comments: tool slid, mud dropped down anulis below 6' out of site

Serial #: 8845

Outside Murfin Drilling Co, Inc.

Kopriva #1-4

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 61371

Printed: 2017.06.20 @ 10:37:19

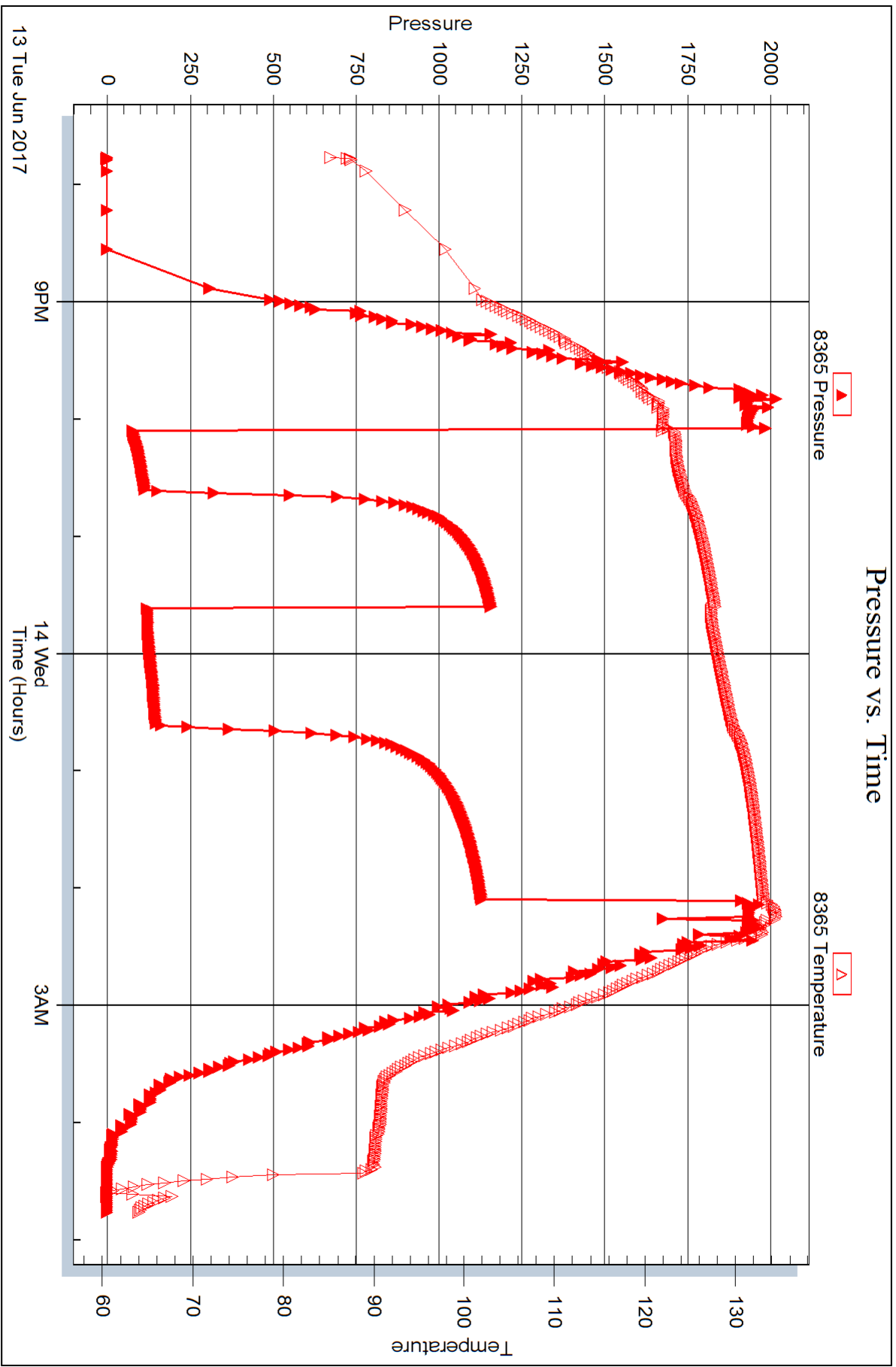
Serial #: 8365

Inside

Murfin Drilling Co, Inc.

Kopriva#1-4

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co, Inc.**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Kopriva #1-4

14-2s-35w Rawlins,KS

Start Date: 2017.06.14 @ 14:26:00

End Date: 2017.06.14 @ 22:29:45

Job Ticket #: 61372 DST #: 3

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

Printed: 2017.06.20 @ 10:36:55



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Rocky Milford

14-2s-35w Rawlins,KS

Kopriva #1-4

Job Ticket: 61372

DST#: 3

Test Start: 2017.06.14 @ 14:26:00

GENERAL INFORMATION:

Formation: **LKC A snd - D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:09:45
 Time Test Ended: 22:29:45
 Interval: **4144.00 ft (KB) To 4200.00 ft (KB) (TVD)**
 Total Depth: 4200.00 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: 3201.00 ft (KB)
 3196.00 ft (CF)
 KB to GR/CF: 5.00 ft

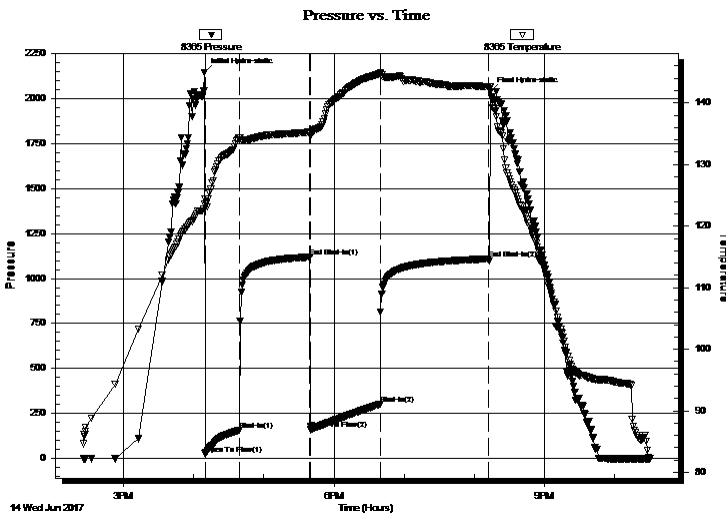
Serial #: 8365

Inside

Press@RunDepth: 301.96 psig @ 4145.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.06.14 End Date: 2017.06.14 Last Calib.: 2017.06.14
 Start Time: 14:26:05 End Time: 22:29:44 Time On Btm: 2017.06.14 @ 16:09:15
 Time Off Btm: 2017.06.14 @ 20:13:45

TEST COMMENT: IF: BOB @ 16 min. Slid 8 ft mud dropped 1'.
 IS: No return.
 FF: BOB @ 31 min.
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2146.08	123.52	Initial Hydro-static
1	25.22	124.33	Open To Flow (1)
30	156.54	134.33	Shut-In(1)
91	1119.01	135.26	End Shut-In(1)
91	160.00	134.96	Open To Flow (2)
150	301.96	144.77	Shut-In(2)
243	1109.23	142.60	End Shut-In(2)
245	2041.36	142.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
590.00	mcw 15m 85w (oil spots)	6.41

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61372

DST#: 3

ATTN: Rocky Milford

Test Start: 2017.06.14 @ 14:26:00

Tool Information

Drill Pipe:	Length: 3933.00 ft	Diameter: 3.80 inches	Volume: 55.17 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: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 56.18 bbl</u>	Tool Chased	8.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4144.00 ft			Final	64000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	56.00 ft				
Tool Length:	83.00 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			4118.00	
Shut In Tool	5.00			4123.00	
Hydraulic tool	5.00			4128.00	
Jars	5.00			4133.00	
Safety Joint	2.00			4135.00	
Packer	5.00			4140.00	27.00 Bottom Of Top Packer
Packer	4.00			4144.00	
Stubb	1.00			4145.00	
Recorder	0.00	8365	Inside	4145.00	
Recorder	0.00	8845	Outside	4145.00	
Perforations	19.00			4164.00	
Change Over Sub	1.00			4165.00	
Drill Pipe	31.00			4196.00	
Change Over Sub	1.00			4197.00	
Bullnose	3.00			4200.00	56.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61372

DST#: 3

ATTN: Rocky Milford

Test Start: 2017.06.14 @ 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:

28000 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
590.00	mcw 15m 85w (oil spots)	6.409

Total Length: 590.00 ft Total Volume: 6.409 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .210 @ 80f = 28,000ppm

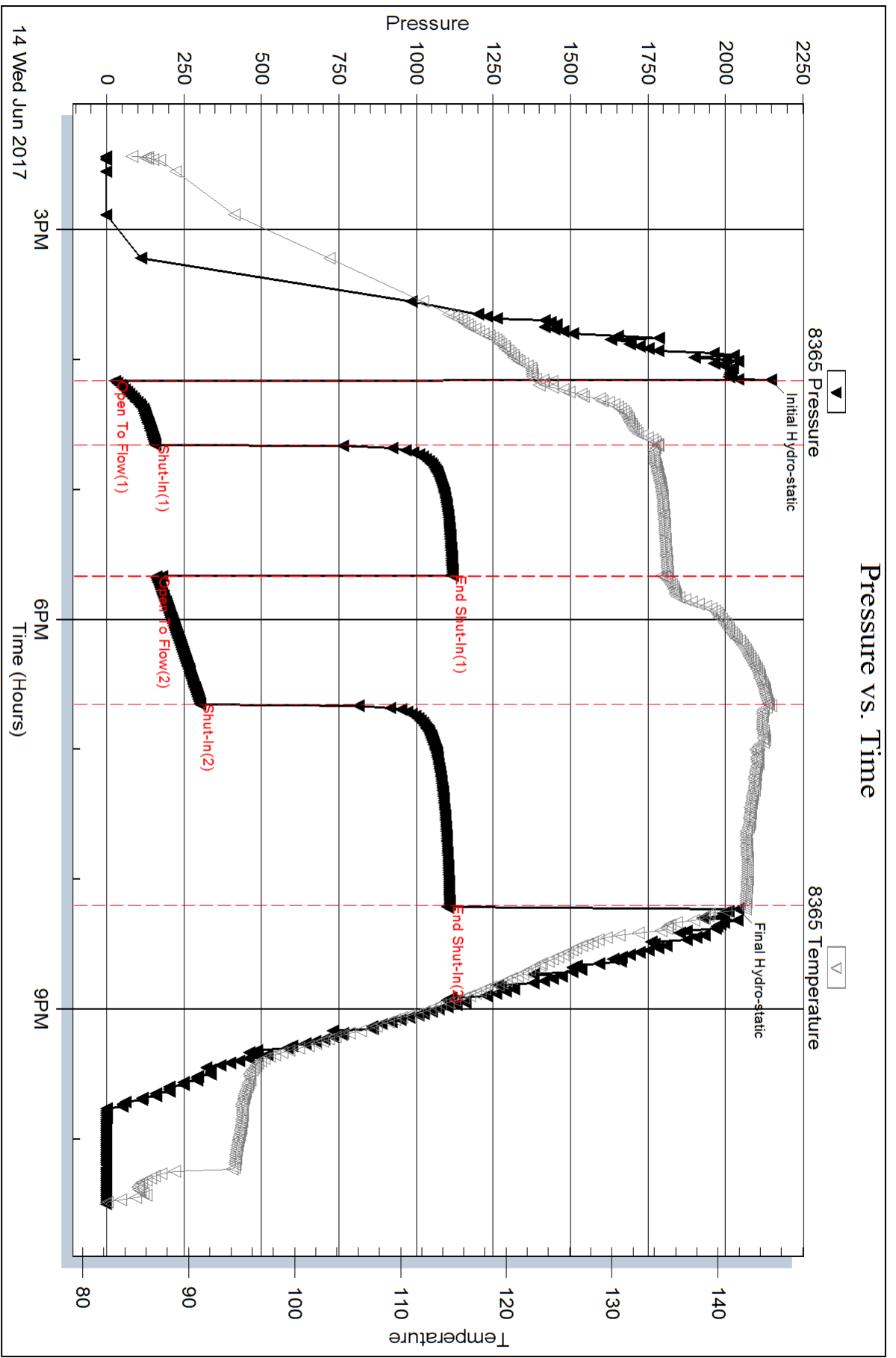
Serial #: 8365

Inside

Murfin Drilling Co, Inc.

Kopriva #1-4

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 61372

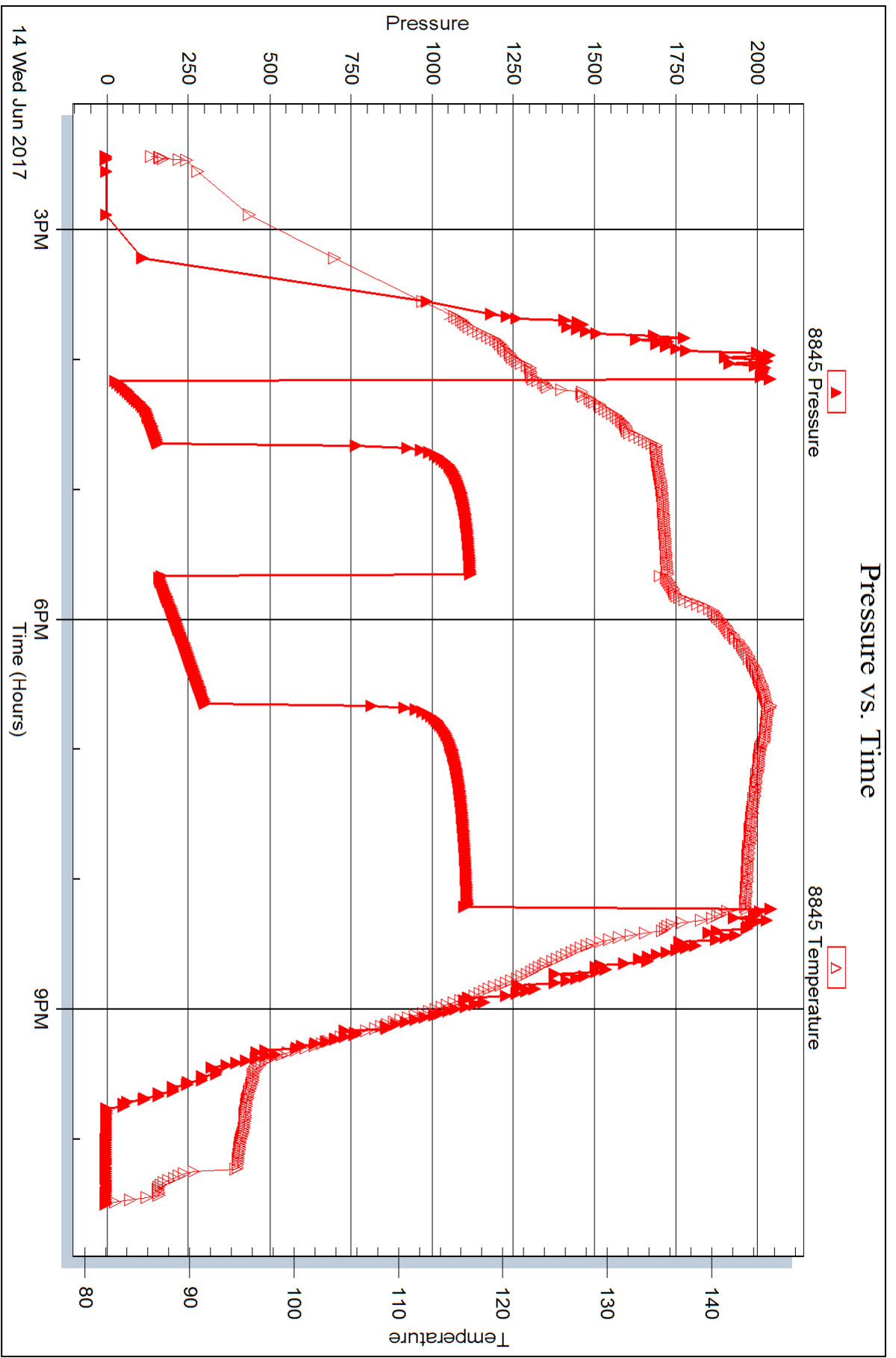
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Serial #: 8845

Outside Murfin Drilling Co, Inc.

Kopriva#1-4

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co, Inc.**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Kopriva #1-4

14-2s-35w Rawlins,KS

Start Date: 2017.06.15 @ 08:30:00

End Date: 2017.06.15 @ 15:41:15

Job Ticket #: 61373 DST #: 4

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

Printed: 2017.06.20 @ 10:34:31

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

Kopriva #1-4

DST # 4

LKC D prime - upper

2017.06.15



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Rocky Milford

14-2s-35w Rawlins,KS

Kopriva #1-4

Job Ticket: 61373

DST#: 4

Test Start: 2017.06.15 @ 08:30:00

GENERAL INFORMATION:

Formation: **LKC D prime - upper**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:39:30

Time Test Ended: 15:41:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: **4197.00 ft (KB) To 4244.00 ft (KB) (TVD)**

Reference Elevations: 3201.00 ft (KB)

Total Depth: 4244.00 ft (KB) (TVD)

3196.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8845 Outside

Press@RunDepth: 17.69 psig @ 4198.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.15

End Date:

2017.06.15

Last Calib.: 2017.06.15

Start Time: 08:30:05

End Time:

15:41:14

Time On Btm: 2017.06.15 @ 10:39:15

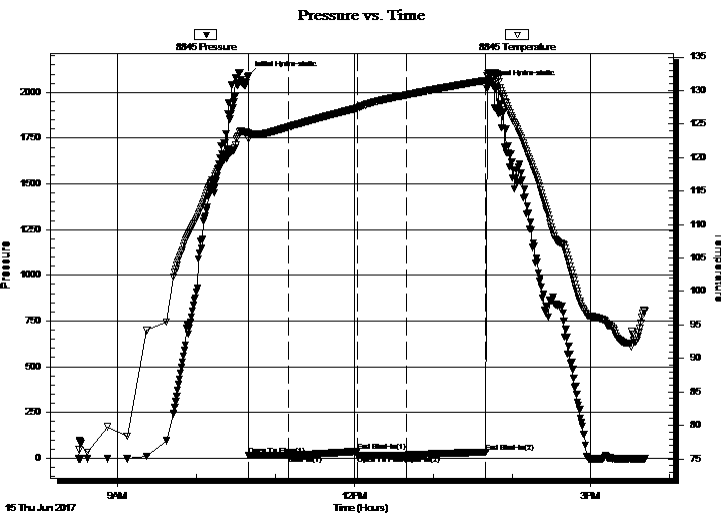
Time Off Btm: 2017.06.15 @ 13:41:15

TEST COMMENT: IF: 1/4 inch blow , receded to Surface.

IS: No return.

FF: No blow .

FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2089.73	123.65	Initial Hydro-static
1	15.34	122.73	Open To Flow (1)
31	16.23	124.57	Shut-In(1)
83	37.41	127.36	End Shut-In(1)
84	16.98	127.36	Open To Flow (2)
121	17.69	129.33	Shut-In(2)
181	33.85	131.52	End Shut-In(2)
182	2040.89	132.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100m (oil spots)	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61373

DST#: 4

ATTN: Rocky Milford

Test Start: 2017.06.15 @ 08:30:00

Tool Information

Drill Pipe:	Length: 3990.00 ft	Diameter: 3.80 inches	Volume: 55.97 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 56.98 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	64000.00 lb
Depth to Top Packer:	4197.00 ft			Final	64000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	47.00 ft				
Tool Length:	74.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4171.00	
Shut In Tool	5.00			4176.00	
Hydraulic tool	5.00			4181.00	
Jars	5.00			4186.00	
Safety Joint	2.00			4188.00	
Packer	5.00			4193.00	27.00 Bottom Of Top Packer
Packer	4.00			4197.00	
Stubb	1.00			4198.00	
Recorder	0.00	8365	Inside	4198.00	
Recorder	0.00	8845	Outside	4198.00	
Perforations	10.00			4208.00	
Change Over Sub	1.00			4209.00	
Drill Pipe	31.00			4240.00	
Change Over Sub	1.00			4241.00	
Bullnose	3.00			4244.00	47.00 Bottom Packers & Anchor

Total Tool Length: 74.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61373

DST#: 4

ATTN: Rocky Milford

Test Start: 2017.06.15 @ 08:30:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100m (oil spots)	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

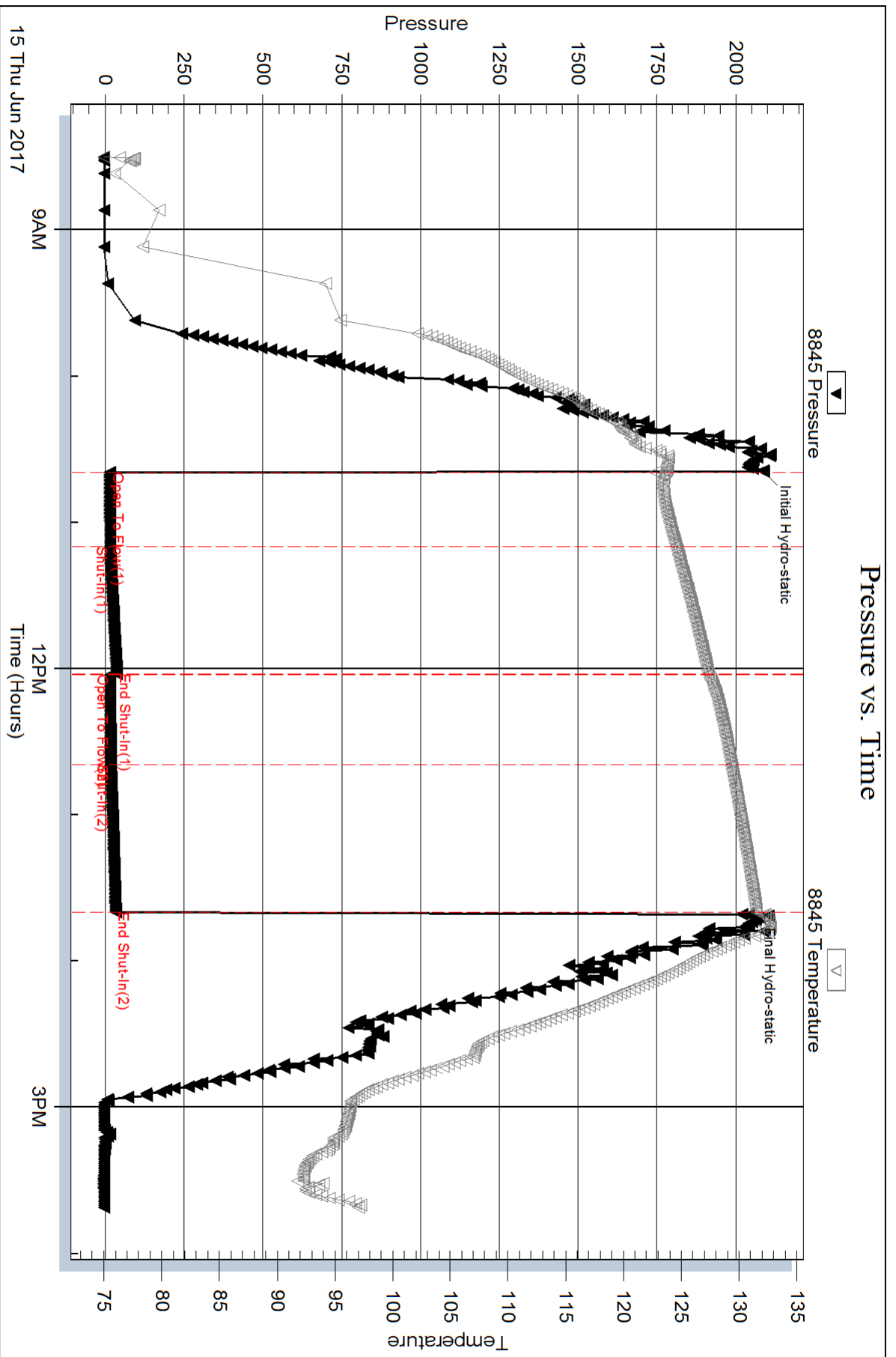
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



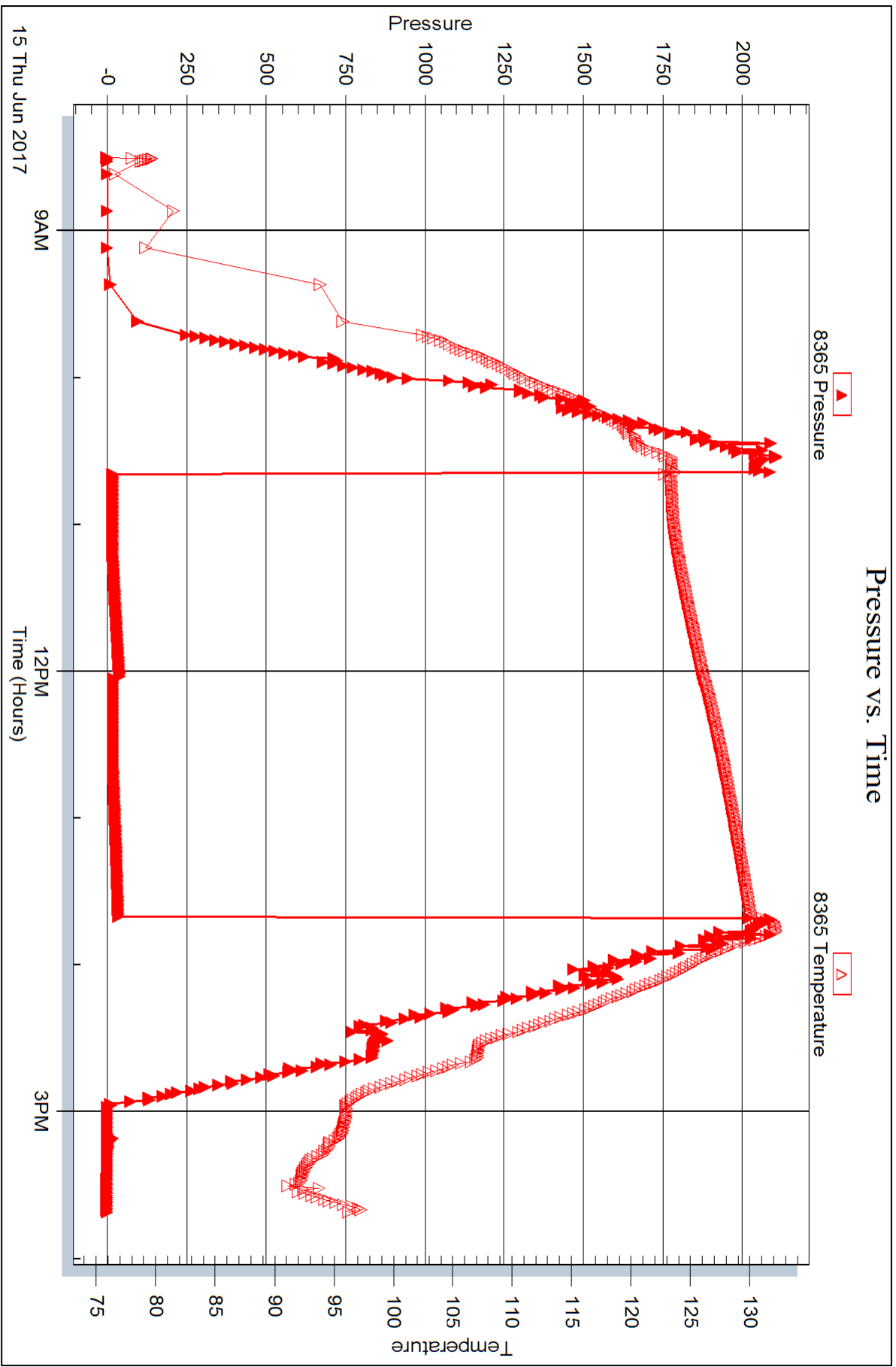
Serial #: 8365

Inside

Murfin Drilling Co, Inc.

Kopriva#1-4

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co, Inc.**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Kopriva #1-4

14-2s-35w Rawlins,KS

Start Date: 2017.06.16 @ 01:36:00

End Date: 2017.06.16 @ 10:30:15

Job Ticket #: 61374 DST #: 5

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

Printed: 2017.06.20 @ 10:34:03



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Rocky Milford

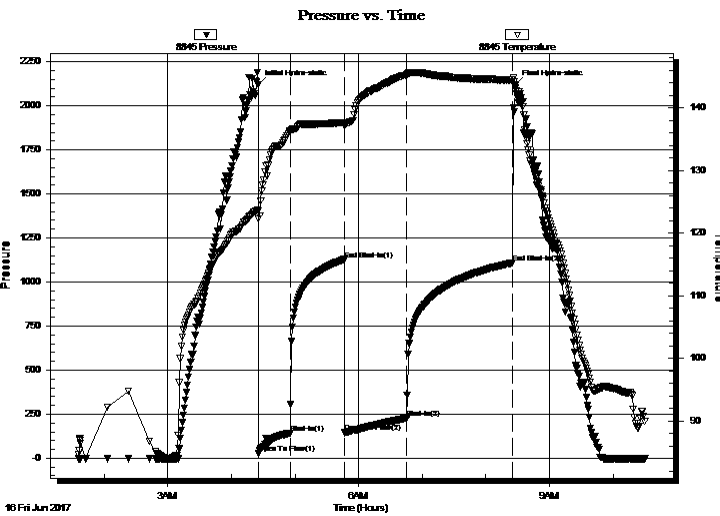
14-2s-35w Rawlins,KS
Kopriva #1-4
 Job Ticket: 61374 **DST#: 5**
 Test Start: 2017.06.16 @ 01:36:00

GENERAL INFORMATION:

Formation: **LKC Lwr G - H**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:25:45
 Time Test Ended: 10:30:15
 Interval: **4243.00 ft (KB) To 4292.00 ft (KB) (TVD)**
 Total Depth: 4292.00 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: 3201.00 ft (KB)
 3196.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8845 Outside
 Press@RunDepth: 227.40 psig @ 4244.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.06.16 End Date: 2017.06.16 Last Calib.: 2017.06.16
 Start Time: 01:36:05 End Time: 10:30:15 Time On Btm: 2017.06.16 @ 04:25:30
 Time Off Btm: 2017.06.16 @ 08:27:30

TEST COMMENT: IF: BOB @ 21 min.
 IS: No return.
 FF: BOB @ 33 min.
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2120.09	123.58	Initial Hydro-static
1	25.11	122.26	Open To Flow (1)
30	142.12	136.29	Shut-In(1)
81	1128.10	137.65	End Shut-In(1)
82	145.07	137.14	Open To Flow (2)
140	227.40	145.22	Shut-In(2)
240	1108.54	144.42	End Shut-In(2)
242	2119.40	143.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	sow cm 1o 20w 79m (oil puddle top)	0.10
620.00	mcw 20m 80w (oil spots)	7.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61374

DST#: 5

ATTN: Rocky Milford

Test Start: 2017.06.16 @ 01:36:00

Tool Information

Drill Pipe:	Length: 4023.00 ft	Diameter: 3.80 inches	Volume: 56.43 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: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 57.44 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	64000.00 lb
Depth to Top Packer:	4243.00 ft			Final	66000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	49.00 ft				
Tool Length:	76.00 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			4217.00	
Shut In Tool	5.00			4222.00	
Hydraulic tool	5.00			4227.00	
Jars	5.00			4232.00	
Safety Joint	2.00			4234.00	
Packer	5.00			4239.00	27.00 Bottom Of Top Packer
Packer	4.00			4243.00	
Stubb	1.00			4244.00	
Recorder	0.00	8365	Inside	4244.00	
Recorder	0.00	8845	Outside	4244.00	
Perforations	12.00			4256.00	
Change Over Sub	1.00			4257.00	
Drill Pipe	31.00			4288.00	
Change Over Sub	1.00			4289.00	
Bullnose	3.00			4292.00	49.00 Bottom Packers & Anchor

Total Tool Length: 76.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, Inc.
250 N Water Ste 300
Wichita, KS 67202
ATTN: Rocky Milford

14-2s-35w Rawlins,KS
Kopriva #1-4
Job Ticket: 61374 **DST#: 5**
Test Start: 2017.06.16 @ 01:36:00

Mud and Cushion Information

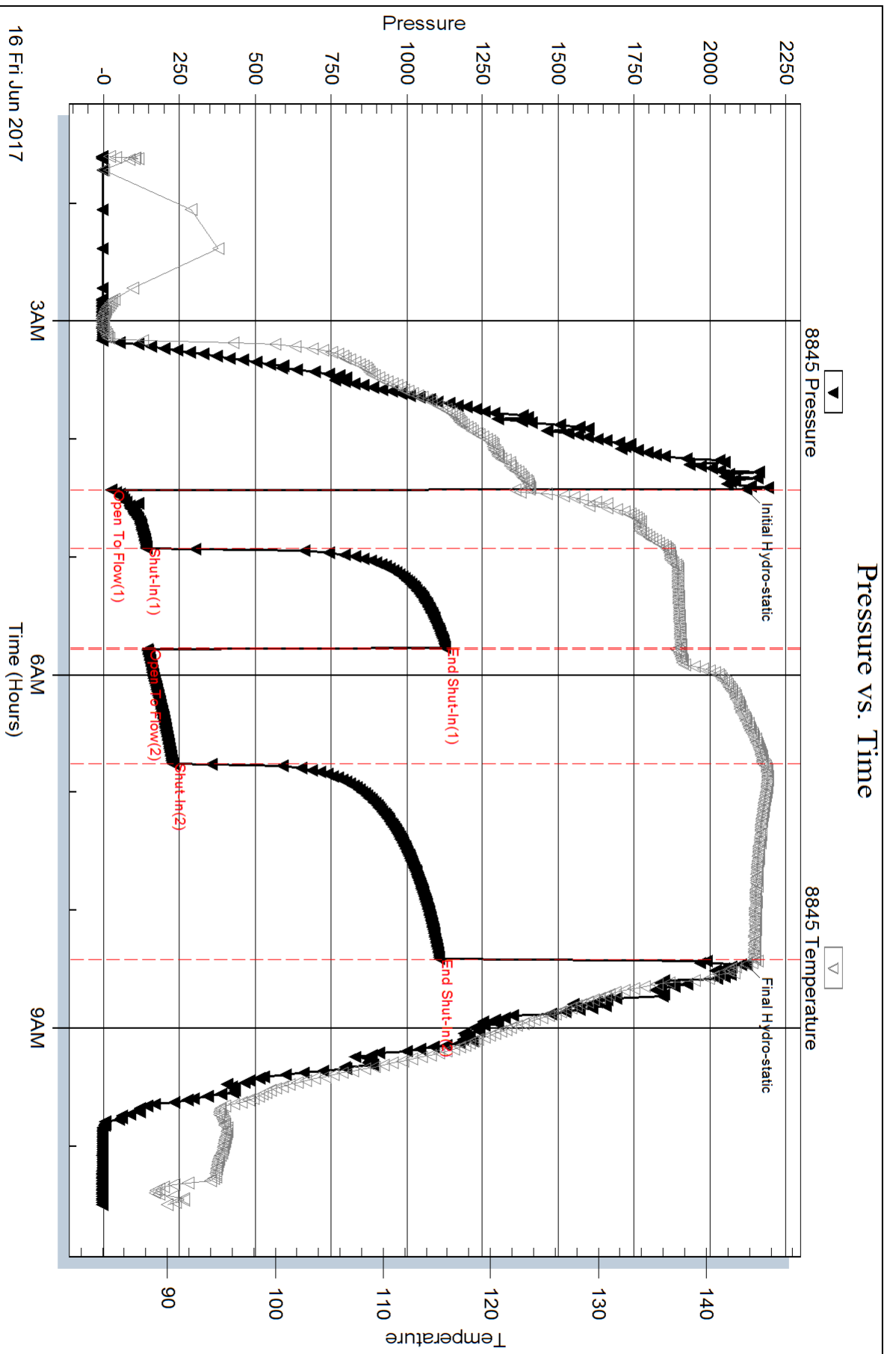
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 24000 ppm
Viscosity: 75.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.39 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1400.00 ppm		
Filter Cake: 2.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	sow cm 1o 20w 79m (oil puddle top)	0.098
620.00	mcw 20m 80w (oil spots)	7.012

Total Length: 640.00 ft Total Volume: 7.110 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: rw is .255 @ 77F = 24000ppm



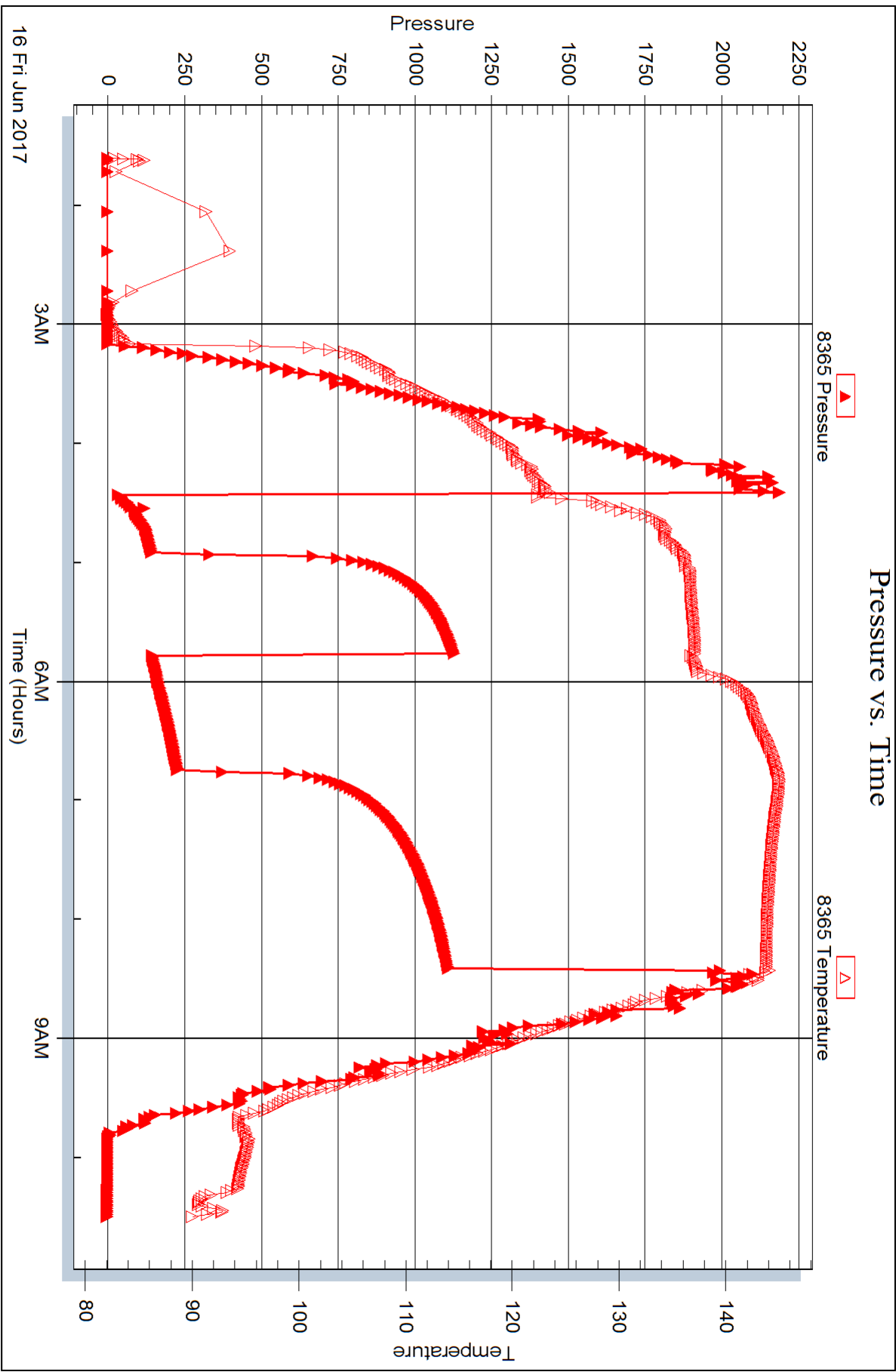
Serial #: 8365

Inside

Murfin Drilling Co, Inc.

Kopriva#1-4

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co, Inc.**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Kopriva #1-4

14-2s-35w Rawlins,KS

Start Date: 2017.06.16 @ 19:50:00

End Date: 2017.06.17 @ 03:41:30

Job Ticket #: 61375 DST #: 6

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

Printed: 2017.06.20 @ 10:31:27



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61375

DST#: 6

ATTN: Rocky Milford

Test Start: 2017.06.16 @ 19:50:00

GENERAL INFORMATION:

Formation: **LKC J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:23:30
 Time Test Ended: 03:41:30
 Interval: **4291.00 ft (KB) To 4340.00 ft (KB) (TVD)**
 Total Depth: 4340.00 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: 3201.00 ft (KB)
 3196.00 ft (CF)
 KB to GR/CF: 5.00 ft

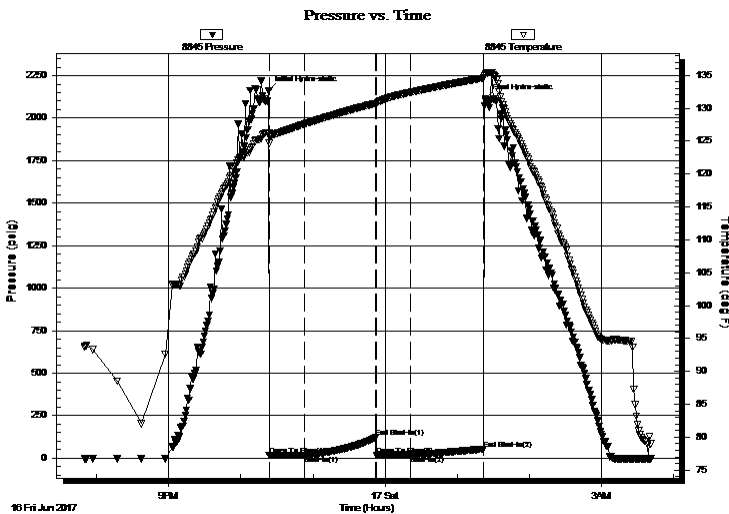
Serial #: 8845

Outside

Press@RunDepth: 19.51 psig @ 4292.00 ft (KB)
 Start Date: 2017.06.16 End Date: 2017.06.17
 Start Time: 19:50:05 End Time: 03:41:29
 Capacity: 8000.00 psig
 Last Calib.: 2017.06.17
 Time On Btm: 2017.06.16 @ 22:23:15
 Time Off Btm: 2017.06.17 @ 01:23:15

TEST COMMENT: IF: 1/4" blow , receded to surface.
 IS: No return.
 FF: No blow .
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2161.30	126.26	Initial Hydro-static
1	16.19	124.71	Open To Flow (1)
30	17.93	127.59	Shut-In(1)
89	120.80	130.74	End Shut-In(1)
90	19.03	130.75	Open To Flow (2)
118	19.51	132.42	Shut-In(2)
179	54.39	134.57	End Shut-In(2)
180	2112.98	135.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm 2o 98m	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61375

DST#: 6

ATTN: Rocky Milford

Test Start: 2017.06.16 @ 19:50:00

Tool Information

Drill Pipe:	Length: 4086.00 ft	Diameter: 3.80 inches	Volume: 57.32 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: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 58.33 bbl</u>	Tool Chased 1.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4291.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	76.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4265.00	
Shut In Tool	5.00			4270.00	
Hydraulic tool	5.00			4275.00	
Jars	5.00			4280.00	
Safety Joint	2.00			4282.00	
Packer	5.00			4287.00	27.00 Bottom Of Top Packer
Packer	4.00			4291.00	
Stubb	1.00			4292.00	
Recorder	0.00	8365	Inside	4292.00	
Recorder	0.00	8845	Outside	4292.00	
Perforations	12.00			4304.00	
Change Over Sub	1.00			4305.00	
Drill Pipe	31.00			4336.00	
Change Over Sub	1.00			4337.00	
Bullnose	3.00			4340.00	49.00 Bottom Packers & Anchor

Total Tool Length: 76.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, Inc.

14-2s-35w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Kopriva #1-4

Job Ticket: 61375

DST#: 6

ATTN: Rocky Milford

Test Start: 2017.06.16 @ 19:50:00

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: 75.00 sec/qt

Cushion Volume:

bbf

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	ocm 2o 98m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

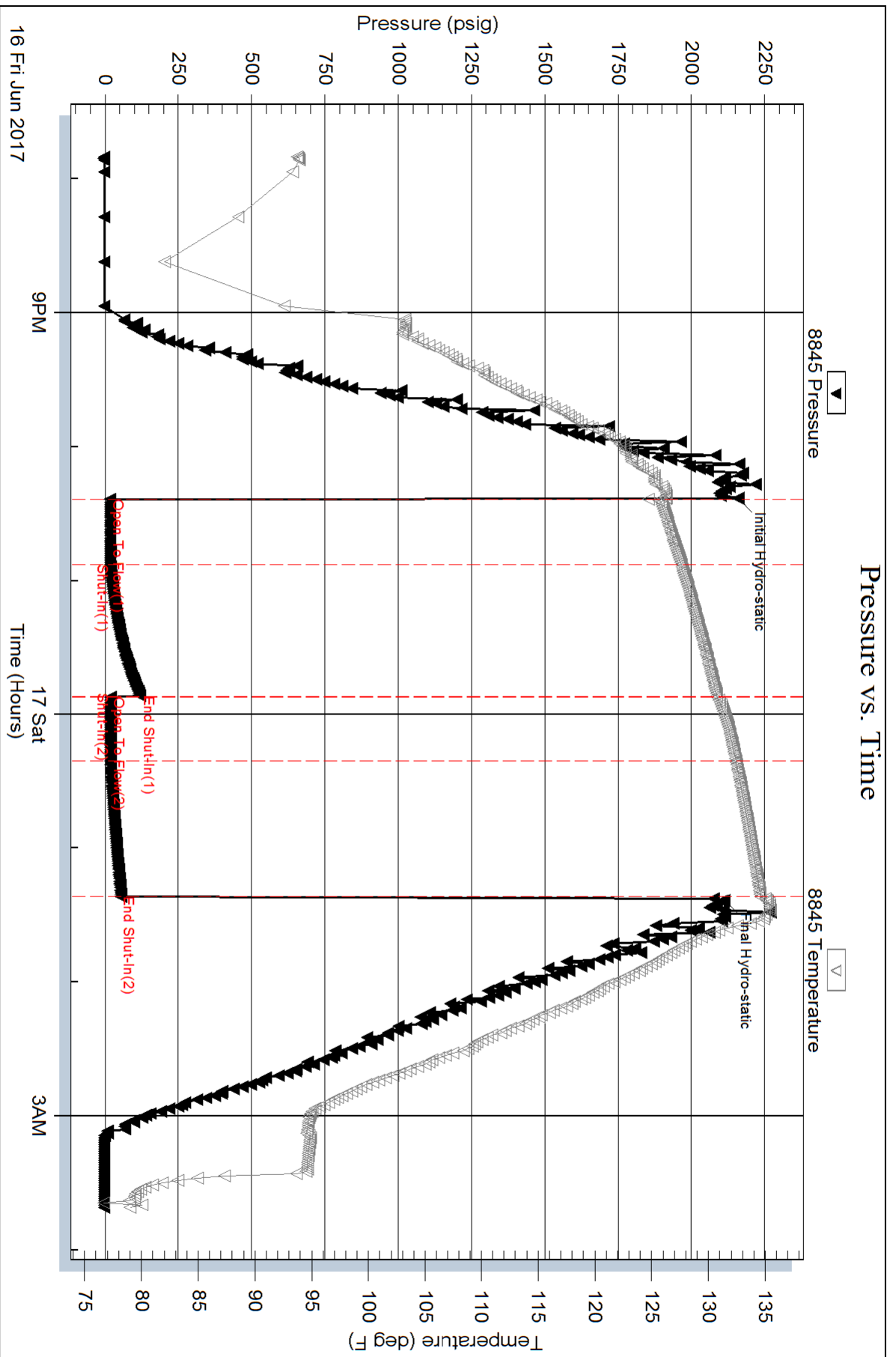
Recovery Comments:

Serial #: 8845

Outside Murfin Drilling Co, Inc.

Kopriva#1-4

DST Test Number: 6



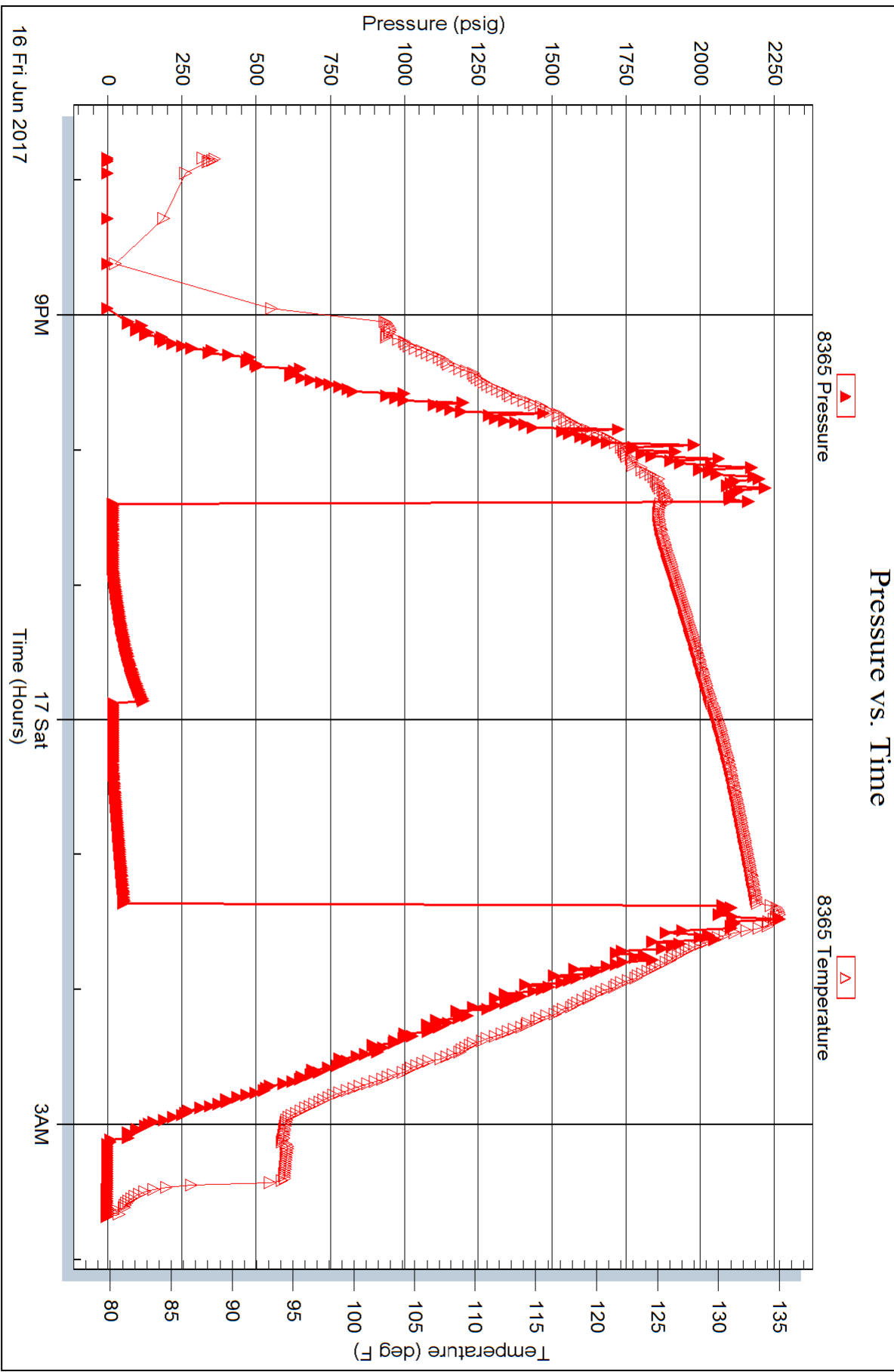
Serial #: 8365

Inside

Murfin Drilling Co, Inc.

Kopriva#1-4

DST Test Number: 6





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **61370**

Well Name & No. Kopriva F1-14 Test No. 1 Date 6/13/2017
 Company Morton Drilling Co, Inc Elevation 3703 / KB 6/13/2017
 Address 250 N Water Ste 300 Wichita, KS 67202 ~~4057~~ 3196
 Co. Rep / Geo. Rocky McFord Rig Morton 24
 Location: Sec. 14 Twp. 2 S Rge. 35 W Co. Rawlins State Ks

Interval Tested 3993 Zone Tested Oread
 Anchor Length 4057 Drill Pipe Run 3777 Mud Wt. 8.8
 Top Packer Depth 3988 Drill Collars Run 205 Vis 62
 Bottom Packer Depth 3993 Wt. Pipe Run 0 WL 6.8
 Total Depth 4057 Chlorides 800 ppm System LCM 4 #

Blow Description IF Surface blow.
ISI No return.
FF No blow
PSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MOO</u>			<u>400</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 128 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1938</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2315 6/12</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0010</u>
(C) First Final Flow <u>17</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0259</u>
(D) Initial Shut-In <u>65</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>0557</u>
(E) Second Initial Flow <u>17</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0758</u>
(F) Second Final Flow <u>18</u>	<input checked="" type="checkbox"/> Mileage <u>134rt 100.50</u>	Comments
(G) Final Shut-In <u>35</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1900</u>	<input type="checkbox"/> Straddle	

Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1825.50</u>
	Sub Total <u>1825.50</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61371

Well Name & No. Kopriva # 1-14 Test No. 2 Date 6/14/2017
 Company Martin Drilling Co, Inc Elevation 3201 KB 3196 GL
 Address 250 N Water Ste 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Martin 24
 Location: Sec. 14 Twp. 2S Rge. 35W Co. Rawlins State Ks

Interval Tested 4074 - 4148 Zone Tested LKC A
 Anchor Length 74 Drill Pipe Run 4370 Mud Wt. 8.9
 Top Packer Depth 4069 Drill Collars Run 205 Vis 56
 Bottom Packer Depth 4074 Wt. Pipe Run 0 WL 6.4
 Total Depth 4148 Chlorides 800 ppm System LCM 5#

Blow Description IF: 3 1/2" blow after bleedoff, tool slid 10' took on some mud
ISF: No return.
FF: 9 1/2" blow
FST: 1/2" return. dial @ 60 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>OIL</u>		<u>100</u>		
<u>100</u>	<u>60cm</u>	<u>10</u>	<u>40</u>		<u>50</u>
<u>120</u>	<u>60cm</u>	<u>10</u>	<u>30</u>		<u>60</u>
	<u>140' GIP</u>				

Rec Total 280 BHT 134 Gravity 82.1 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1994</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1408</u>
(B) First Initial Flow <u>73</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1946</u>
(C) First Final Flow <u>111</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2203</u>
(D) Initial Shut-In <u>1157</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>0203 6/14</u>
(E) Second Initial Flow <u>119</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0447</u>
(F) Second Final Flow <u>144</u>	<input checked="" type="checkbox"/> Mileage <u>100.50</u>	Comments
(G) Final Shut-In <u>1129</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1949</u>	<input type="checkbox"/> Straddle	

Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer <u>NO</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1575.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1575.50</u>	

Approved By _____ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61372

4/10

Well Name & No. Kopriva #1-14 Test No. 3 Date 6/14/2017
 Company Martin Drilling Co, Inc Elevation 3201 KB 3196 GL
 Address 250 N Water Ste 300 Wichita, Ks 67202
 Co. Rep / Geo. Rocky Milford Rig Martin 24
 Location: Sec. 14 Twp. 2S Rge. 35W Co. Rawlins State Ks

Interval Tested 4144 - 4200 Zone Tested LKs Asd - D
 Anchor Length 56 Drill Pipe Run 3933 Mud Wt. 9.0
 Top Packer Depth 4139 Drill Collars Run 205 Vis 58
 Bottom Packer Depth 4144 Wt. Pipe Run 8 WL 5* 6.0
 Total Depth 4200 Chlorides 900 ppm System LCM 5#
 Blow Description IF BOB @ 16 min Slid 8' mud fell 1'
ISS No return.
FF BOB @ 31 min.
FSI No return.

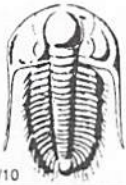
Rec	Feet of	%gas	%oil	%water	%mud
<u>590</u>	<u>mcw</u>			<u>85</u>	<u>15</u>
	<u>Oil spots</u>				

Rec Total 590 BHT 143 Gravity — API RW 1211 @ 80 °F Chlorides 28,000 ppm

(A) Initial Hydrostatic <u>2146</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1338</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1426</u>
(C) First Final Flow <u>157</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1608</u>
(D) Initial Shut-In <u>1119</u>	<input checked="" type="checkbox"/> Circ Sub <u>MC</u>	T-Pulled <u>2008</u>
(E) Second Initial Flow <u>160</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2230</u>
(F) Second Final Flow <u>302</u>	<input checked="" type="checkbox"/> Mileage <u>100.50</u>	Comments
(G) Final Shut-In <u>1109</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2041</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1575.50</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1575.50</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61373

Well Name & No. Kopriva #1-14 Test No. 4 Date 6/15/2016
 Company Martin Drilling Co, Inc Elevation 3201 KB 3116 GL
 Address 250 N Water Ste 300 Wichita, ks 67202
 Co. Rep / Geo. Roddy Milford Rig Martin 24
 Location: Sec. 14 Twp. 2S Rge. 35W Co. Rawlins State KS

Interval Tested 4197 - 4244 Zone Tested LKC Dpme - upper G
 Anchor Length 47 Drill Pipe Run 3990 Mud Wt. 9.0
 Top Packer Depth 4192 Drill Collars Run 205 Vis 60
 Bottom Packer Depth 4197 Wt. Pipe Run 0 WL 6.4
 Total Depth 4244 Chlorides 1400 ppm System LCM 4#
 Blow Description IF 1/4" blow needed to surface,
ISI No return,
FF No blow,
FEI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MUD</u>			<u>100</u>	
	<u>OIL SPOTS</u>				

Rec Total 5 BHT 132 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2090</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0735</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0830</u>
(C) First Final Flow <u>16</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1041</u>
(D) Initial Shut-In <u>37</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1247</u>
(E) Second Initial Flow <u>17</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1541</u>
(F) Second Final Flow <u>18</u>	<input checked="" type="checkbox"/> Mileage <u>100.50</u>	Comments
(G) Final Shut-In <u>34</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2041</u>	<input checked="" type="checkbox"/> Straddle <u>Used</u>	
	<input type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>20</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>00</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	Total <u>1825.50</u>
	Sub Total <u>1825.50</u>	MP/DST Disc't

Approved By _____ Our Representative 

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61374

Well Name & No. Kopnva # 1-14 Test No. 5 Date 6/16/2017
 Company Martin Drilling Co, Inc Elevation 3201 KB 3196 GL
 Address 250 N water Ste 300 Wichita, KS 67202
 Co. Rep / Geo. Rodney Milford Rig Martin 24
 Location: Sec. 14 Twp. 2S Rge. 35W Co. Rawlins State KS

Interval Tested 4243-4292 Zone Tested LRC LUG-H
 Anchor Length 49 Drill Pipe Run 4025 Mud Wt. 8.9
 Top Packer Depth 4238 Drill Collars Run 205 Vis 7.5
 Bottom Packer Depth 4243 Wt. Pipe Run 0 WL 6.4
 Total Depth 4292 Chlorides 1400 ppm System LCM 5#

Blow Description IF 303 @ 21 min
ISI No return.
FF 303 @ 33 min
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>50WCM</u>		<u>1</u>	<u>20</u>	<u>79</u>
<u>620</u>	<u>MCM OIL SPOTS</u>			<u>80</u>	<u>20</u>

Rec Total 640 BHT 144 Gravity — API RW 1255 @ 77 °F Chlorides 24,000 ppm

(A) Initial Hydrostatic <u>2120</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0045</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0137</u>
(C) First Final Flow <u>142</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0424</u>
(D) Initial Shut-In <u>1128</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>0824</u>
(E) Second Initial Flow <u>145</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1030</u>
(F) Second Final Flow <u>227</u>	<input checked="" type="checkbox"/> Mileage <u>100.50</u>	Comments
(G) Final Shut-In <u>1109</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2119</u>	<input type="checkbox"/> Straddle	

<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
<input type="checkbox"/> Accessibility	Total <u>1825.50</u>
Sub Total <u>1825.50</u>	MP/DST Disc't

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61375

Well Name & No. Kopriva # 1-14 Test No. 6 Date 6/16/2017
 Company Murfin Drilling Co, Inc Elevation 3201 KB 3196 GL
 Address 250 N Water Ste 300 Wichita, ks 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin 24
 Location: Sec. 14 Twp. 2s Rge. 35 w Co. Rawlins State KS

Interval Tested 4291 - 4340 Zone Tested LKC J
 Anchor Length 49' Drill Pipe Run 4086 Mud Wt. 9.0
 Top Packer Depth 4286 Drill Collars Run 205 Vis 75
 Bottom Packer Depth 4340 Wt. Pipe Run Ø WL 5.6
 Total Depth 4340 Chlorides 1800 ppm System LCM 5#

Blow Description IF: ~~Su~~ 1/4" blow receded to surface.
ISF: No return.
FF: No blow
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>OCM</u>		<u>2</u>	<u>98</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 135 Gravity — API RW — @ —° F Chlorides — ppm

(A) Initial Hydrostatic 2161 Test 1150 T-On Location 1900
 (B) First Initial Flow 16 Jars 250 T-Started 1950
 (C) First Final Flow 18 Safety Joint 75 T-Open 2224
 (D) Initial Shut-In 121 Circ Sub 4/4 T-Pulled 0124
 (E) Second Initial Flow 19 Hourly Standby _____ T-Out 0342
 (F) Second Final Flow 20 ~~35~~ Mileage 201 Comments Loaded tools
 (G) Final Shut-In 54 Sampler _____ 1230 6/16
 (H) Final Hydrostatic 2113 Straddle _____ Ruined Shale Packer _____

Initial Open 36 Shale Packer 250 Ruined Packer _____
 Initial Shut-In 60 Extra Packer _____ Extra Copies _____
 Final Flow 30 Extra Recorder _____ Sub Total 0
 Final Shut-In 60 Day Standby _____ Total 1926
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1926

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