



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water STE 300
Wichita KS 67202-1216

ATTN: Chuck Schmaltz

David #1-9

9-23s-12w Stafford,KS

Start Date: 2014.07.29 @ 19:35:21

End Date: 2014.07.30 @ 02:09:45

Job Ticket #: 58835 DST #: 1

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

Printed: 2014.08.05 @ 13:42:27



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N. Water STE 300
 Wichita KS 67202-1216
 ATTN: Chuck Schmaltz

9-23s-12w Stafford,KS

David #1-9

Job Ticket: 58835

DST#: 1

Test Start: 2014.07.29 @ 19:35:21

GENERAL INFORMATION:

Formation: **LKC B-F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:26:16
 Time Test Ended: 02:09:45
 Interval: **3324.00 ft (KB) To 3424.00 ft (KB) (TVD)**
 Total Depth: 3424.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ray Schwager
 Unit No: 70
 Reference Elevations: 1856.00 ft (KB)
 1845.00 ft (CF)
 KB to GR/CF: 11.00 ft

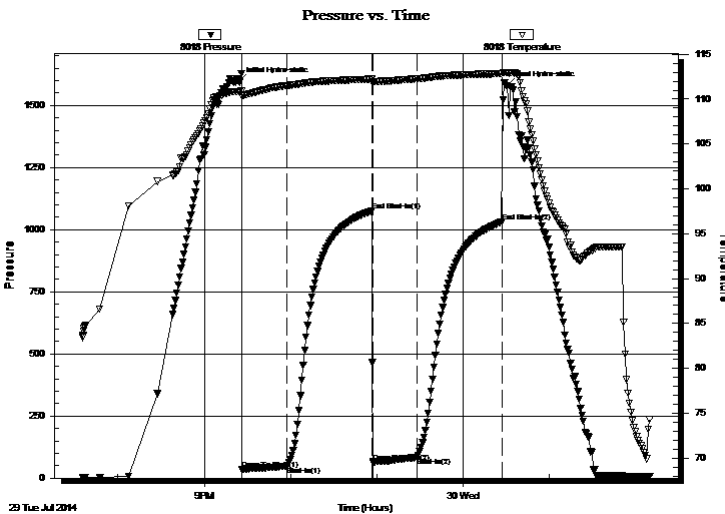
Serial #: 8018

Inside

Press@RunDepth: 84.07 psig @ 3327.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.07.29 End Date: 2014.07.30 Last Calib.: 2014.07.30
 Start Time: 19:35:21 End Time: 02:09:45 Time On Btm: 2014.07.29 @ 21:24:16
 Time Off Btm: 2014.07.30 @ 00:30:45

TEST COMMENT: 30-IFP-w k bl thru-out 1/2" to 1 1/2" bl
 60-ISIP-no bl
 60-FFP-no bl
 90-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1596.02	110.85	Initial Hydro-static
2	34.62	110.39	Open To Flow (1)
33	48.34	111.51	Shut-In(1)
92	1075.08	112.23	End Shut-In(1)
93	64.22	111.97	Open To Flow (2)
124	84.07	112.27	Shut-In(2)
183	1031.50	112.83	End Shut-In(2)
187	1578.63	112.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mud	0.59

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 58835

DST#: 1

ATTN: Chuck Schmaltz

Test Start: 2014.07.29 @ 19:35:21

Tool Information

Drill Pipe:	Length: 3050.00 ft	Diameter: 3.80 inches	Volume: 42.78 bbl	Tool Weight: 2200.00 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: 270.00 ft	Diameter: 2.25 inches	Volume: 1.33 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 44.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3324.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.00 ft			
Tool Length:	129.00 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			3296.00	
Shut In Tool	5.00			3301.00	
Hydraulic tool	5.00			3306.00	
Jars	5.00			3311.00	
Safety Joint	3.00			3314.00	
Packer	5.00			3319.00	29.00 Bottom Of Top Packer
Packer	5.00			3324.00	
Stubb	1.00			3325.00	
Perforations	2.00			3327.00	
Recorder	0.00	8018	Inside	3327.00	
Recorder	0.00	8700	Outside	3327.00	
Blank Spacing	65.00			3392.00	
Perforations	29.00			3421.00	
Bullnose	3.00			3424.00	100.00 Bottom Packers & Anchor

Total Tool Length: 129.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 58835

DST#: 1

ATTN: Chuck Schmaltz

Test Start: 2014.07.29 @ 19:35:21

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Mud	0.590

Total Length: 120.00 ft Total Volume: 0.590 bbl

Num Fluid Samples: 0

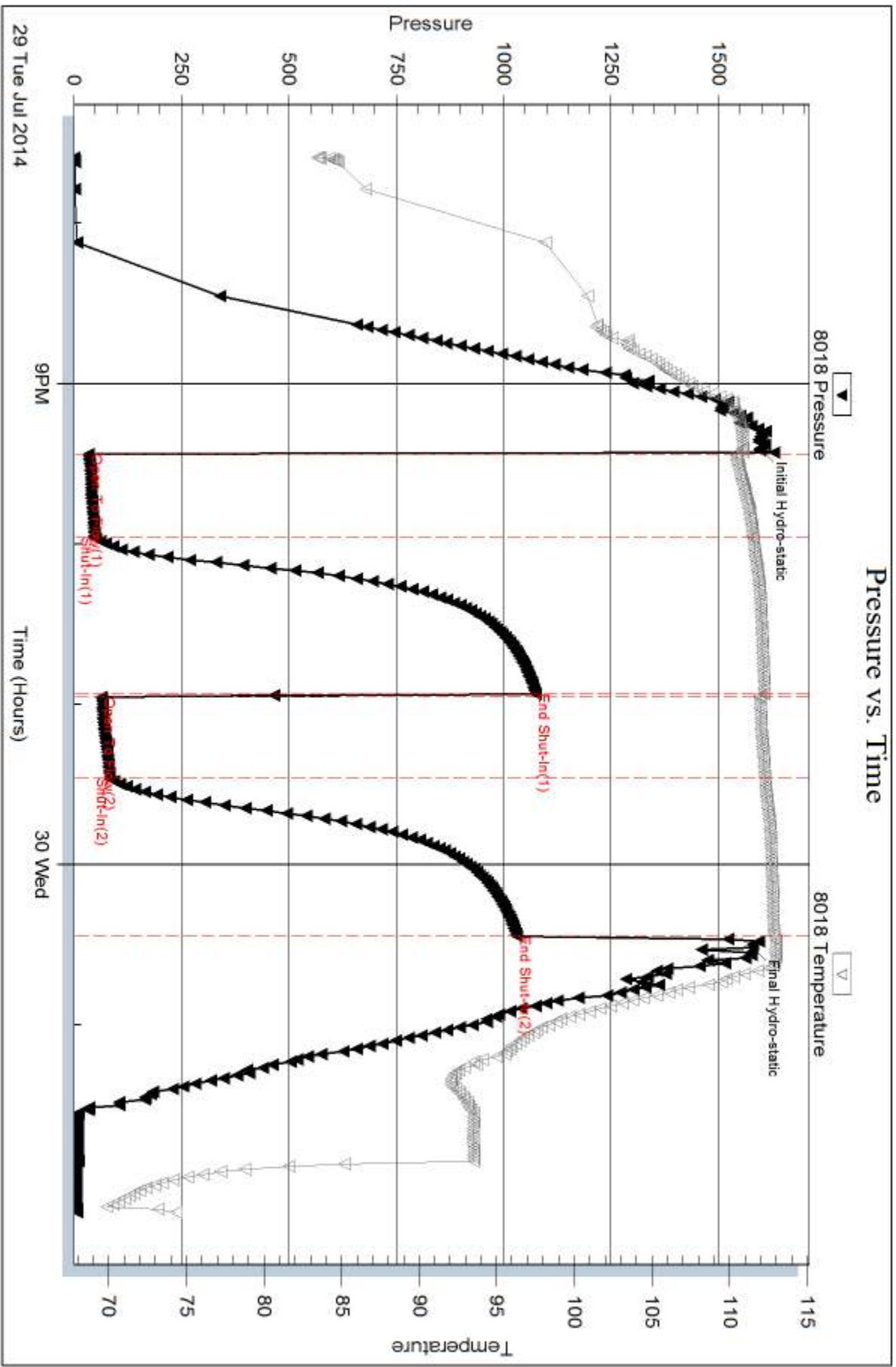
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

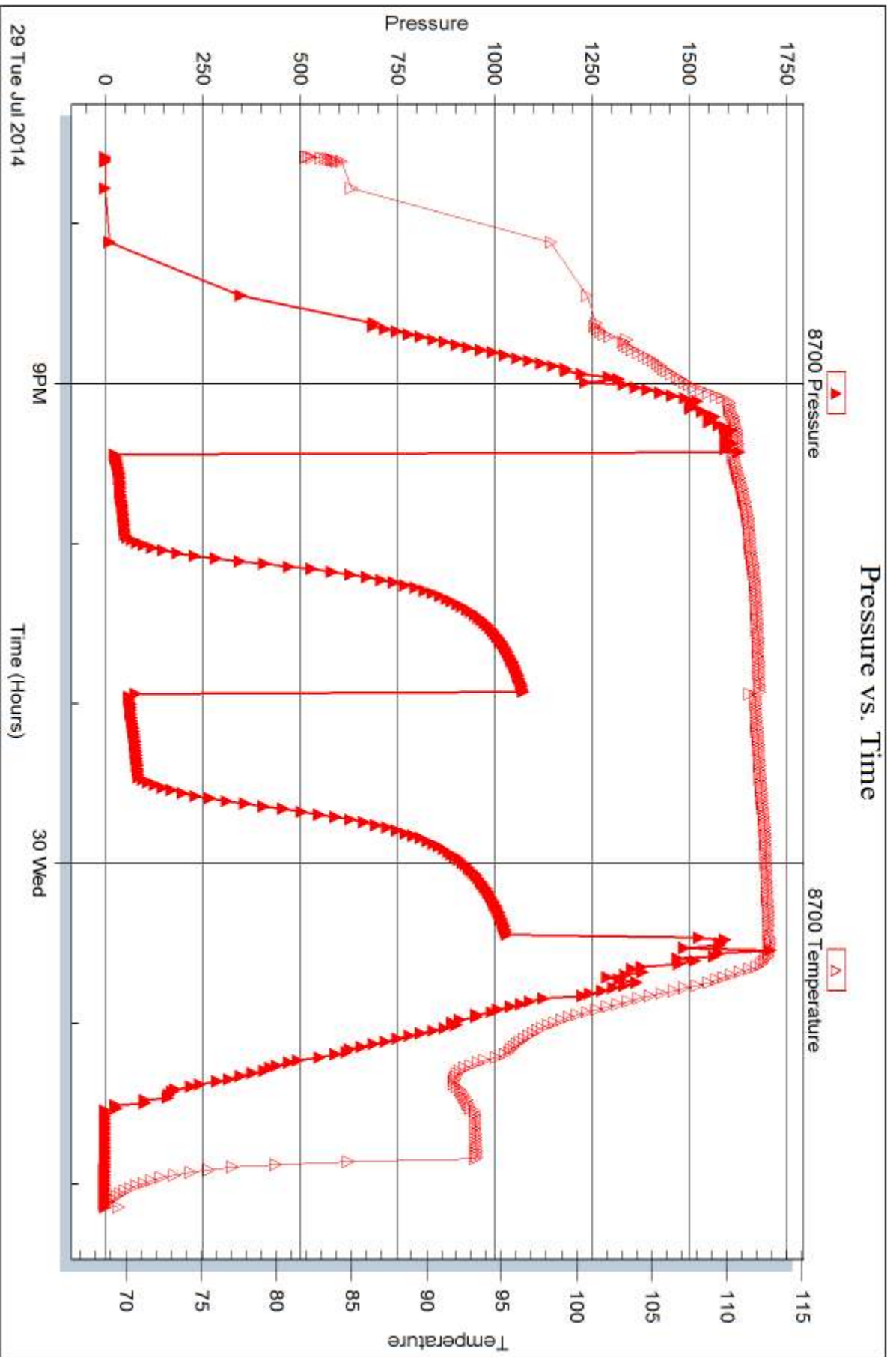


Serial #: 8700

Outside Murfin Drilling Co Inc

David #1-9

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58835

Printed: 2014.08.05 @ 13:42:29



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water STE 300
Wichita KS 67202-1216

ATTN: Chuck Schmaltz

David #1-9

9-23s-12w Stafford,KS

Start Date: 2014.07.30 @ 13:25:40

End Date: 2014.07.30 @ 20:54:40

Job Ticket #: 58836 DST #: 2

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

Printed: 2014.08.05 @ 13:42:05



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N. Water STE 300
 Wichita KS 67202-1216
 ATTN: Chuck Schmalz

9-23s-12w Stafford,KS

David #1-9

Job Ticket: 58836

DST#: 2

Test Start: 2014.07.30 @ 13:25:40

GENERAL INFORMATION:

Formation: **LKC H-K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:58:10
 Time Test Ended: 20:54:40
 Interval: **3463.00 ft (KB) To 3565.00 ft (KB) (TVD)**
 Total Depth: 3565.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 70
 Reference Elevations: 1856.00 ft (KB)
 1845.00 ft (CF)
 KB to GR/CF: 11.00 ft

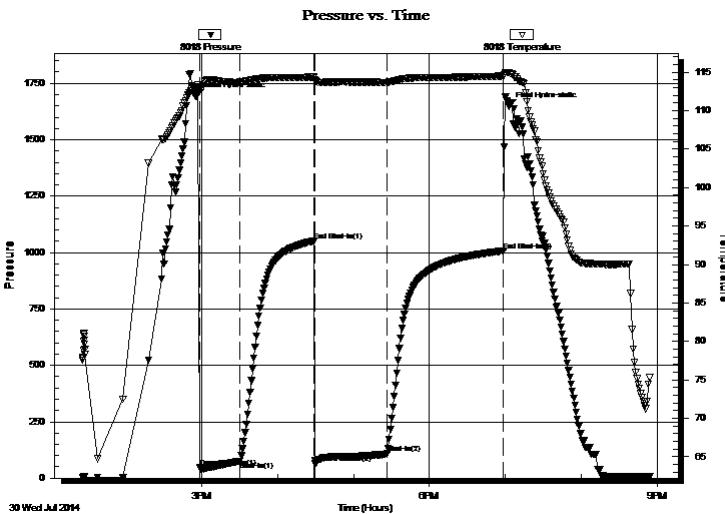
Serial #: 8018

Inside

Press@RunDepth: 109.38 psig @ 3466.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.07.30 End Date: 2014.07.30 Last Calib.: 2014.07.31
 Start Time: 13:25:45 End Time: 20:54:39 Time On Btm: 2014.07.30 @ 14:55:40
 Time Off Btm: 2014.07.30 @ 19:03:10

TEST COMMENT: 30-IFP-strg bl in 1 min
 60-ISIP-no bl
 60-FFP-strg bl GTS in 24 min, to weak to gauge
 90-FSIP-6"bl bk

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1689.99	113.08	Initial Hydro-static
3	47.41	112.94	Open To Flow (1)
35	74.96	113.69	Shut-In(1)
93	1049.71	114.36	End Shut-In(1)
94	65.26	113.91	Open To Flow (2)
151	109.38	113.68	Shut-In(2)
243	1007.39	114.48	End Shut-In(2)
248	1647.64	114.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
80.00	MGO 30%G30%M40%O	0.39
180.00	CO	0.89

* 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

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 58836

DST#: 2

ATTN: Chuck Schmaltz

Test Start: 2014.07.30 @ 13:25:40

Tool Information

Drill Pipe:	Length: 3175.00 ft	Diameter: 3.80 inches	Volume: 44.54 bbl	Tool Weight: 2200.00 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: 270.00 ft	Diameter: 2.25 inches	Volume: 1.33 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 45.87 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3463.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	102.00 ft			
Tool Length:	131.00 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			3435.00	
Shut In Tool	5.00			3440.00	
Hydraulic tool	5.00			3445.00	
Jars	5.00			3450.00	
Safety Joint	3.00			3453.00	
Packer	5.00			3458.00	29.00 Bottom Of Top Packer
Packer	5.00			3463.00	
Stubb	1.00			3464.00	
Perforations	2.00			3466.00	
Recorder	0.00	8018	Inside	3466.00	
Recorder	0.00	8700	Outside	3466.00	
Blank Spacing	65.00			3531.00	
Perforations	31.00			3562.00	
Bullnose	3.00			3565.00	102.00 Bottom Packers & Anchor

Total Tool Length: 131.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 58836

DST#: 2

ATTN: Chuck Schmaltz

Test Start: 2014.07.30 @ 13:25:40

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:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GTS	0.000
80.00	MGO 30%G30%M40%O	0.393
180.00	CO	0.885

Total Length: 260.00 ft Total Volume: 1.278 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

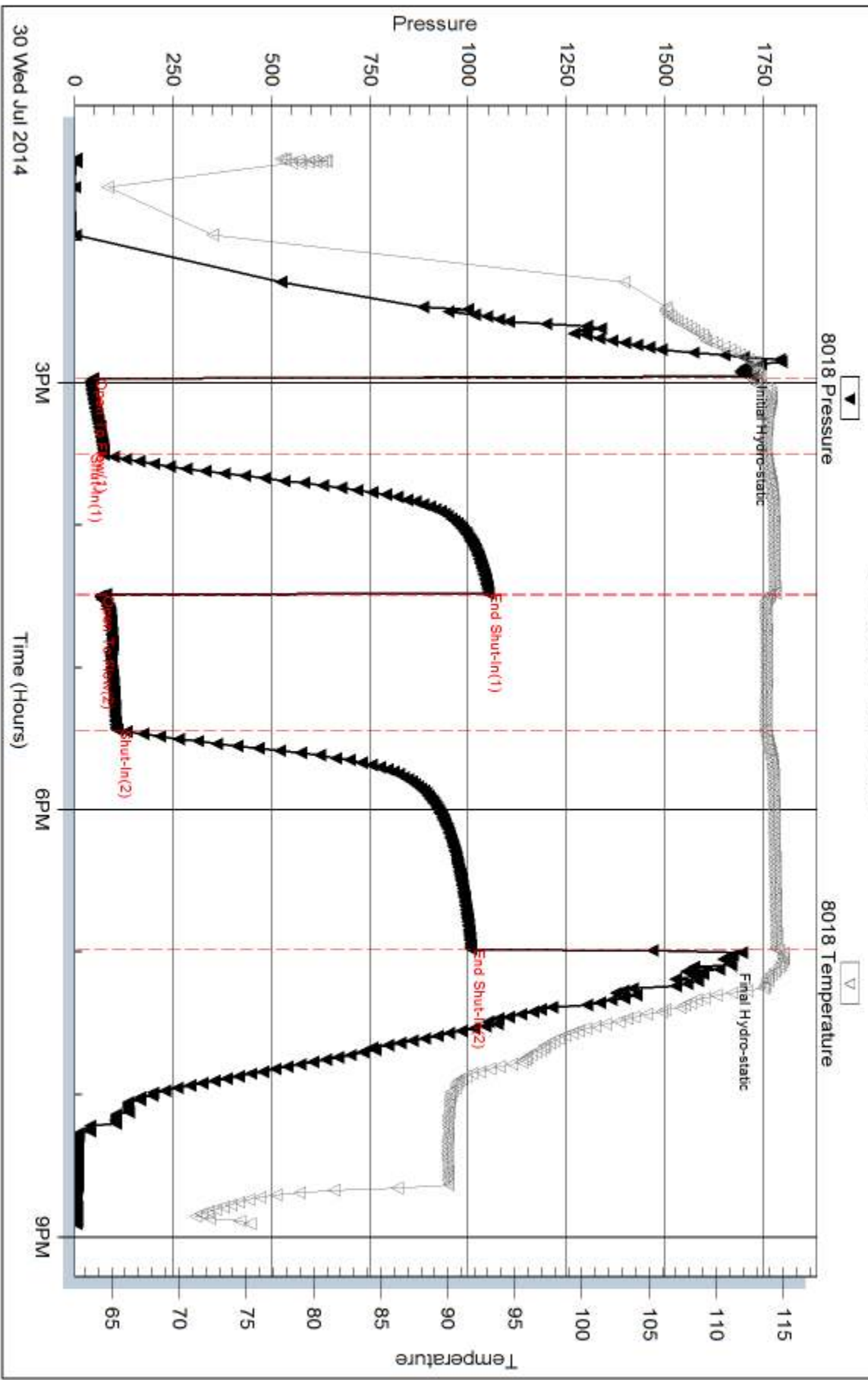
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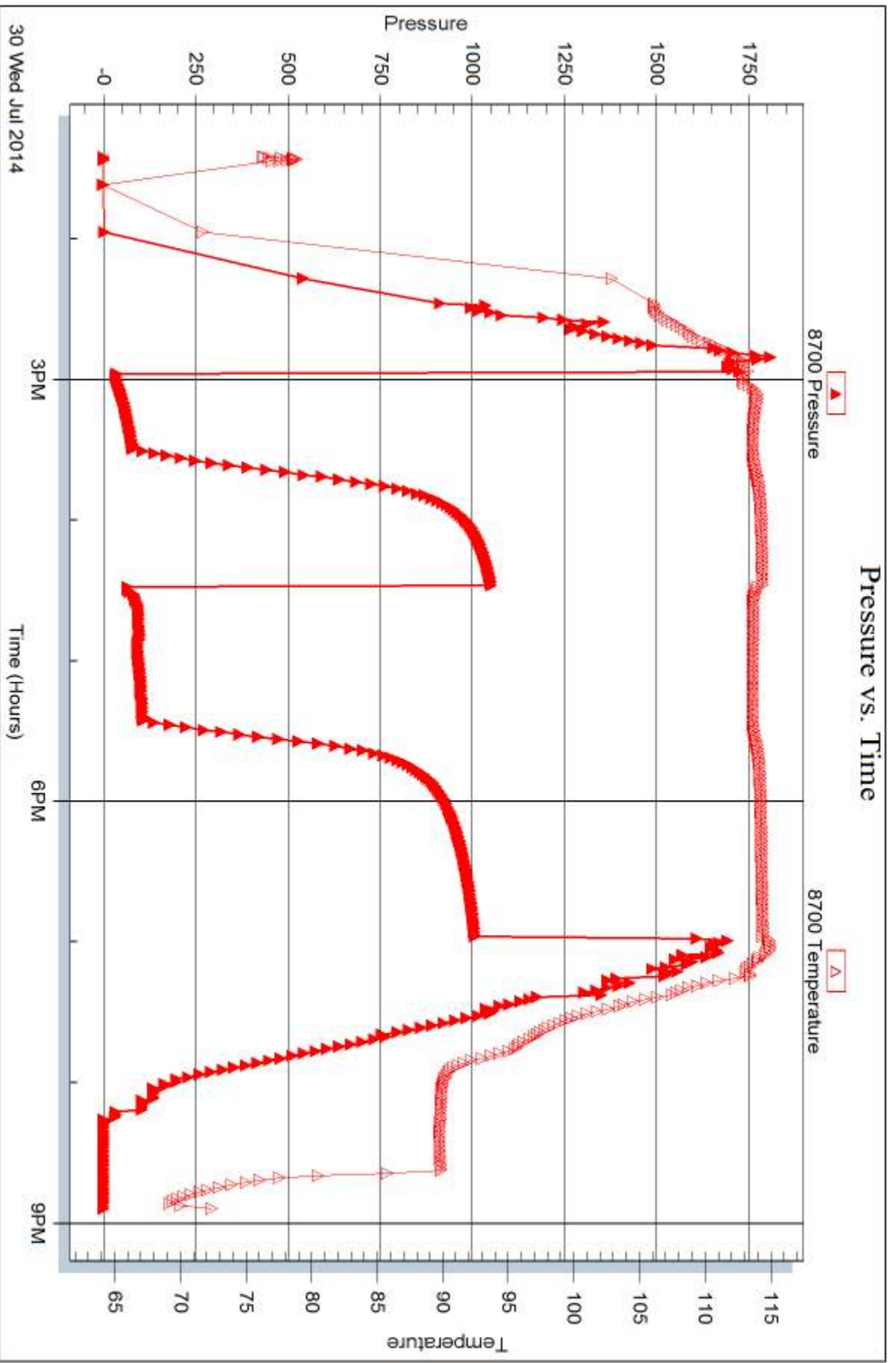
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water STE 300
Wichita KS 67202-1216

ATTN: Chuck Schmaltz

David #1-9

9-23s-12w Stafford,KS

Start Date: 2014.07.31 @ 06:57:51

End Date: 2014.07.31 @ 14:02:06

Job Ticket #: 54163 DST #: 3

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

Printed: 2014.08.05 @ 13:41:28



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water STE 300
Wichita KS 67202-1216
ATTN: Chuck Schmalz

9-23s-12w Stafford,KS

David #1-9

Job Ticket: 54163

DST#: 3

Test Start: 2014.07.31 @ 06:57:51

GENERAL INFORMATION:

Formation: **Viola**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:22:21
 Time Test Ended: 14:02:06
 Interval: **3617.00 ft (KB) To 3670.00 ft (KB) (TVD)**
 Total Depth: 3670.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Reynolds
 Unit No: 68
 Reference Elevations: 1856.00 ft (KB)
 1845.00 ft (CF)
 KB to GR/CF: 11.00 ft

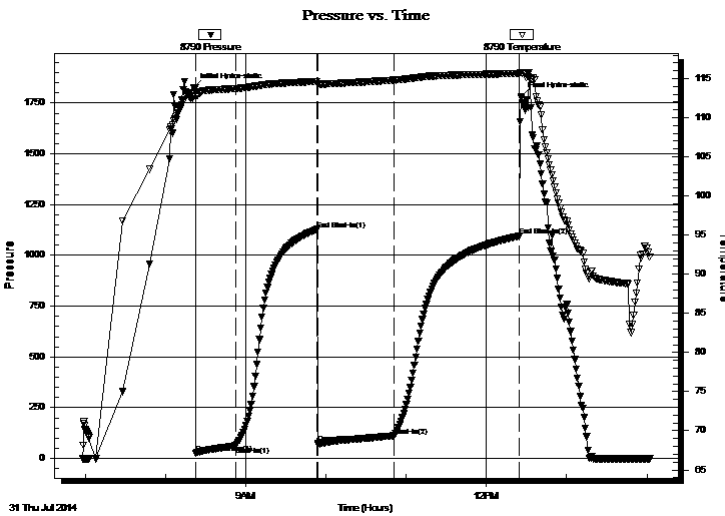
Serial #: 8790

Inside

Press@RunDepth: 111.26 psig @ 3624.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.07.31 End Date: 2014.07.31 Last Calib.: 2014.07.31
 Start Time: 06:57:56 End Time: 14:02:05 Time On Btm: 2014.07.31 @ 08:21:06
 Time Off Btm: 2014.07.31 @ 12:25:51

TEST COMMENT: 30 IF: Strong blow . BOB @ 14 min.
 60 IS: No blow
 60 FF: Fair blow . surf. - 4"
 90 FSI: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1826.65	113.16	Initial Hydro-static
2	26.79	112.60	Open To Flow (1)
32	62.13	113.72	Shut-In(1)
92	1127.98	114.63	End Shut-In(1)
93	72.98	114.34	Open To Flow (2)
150	111.26	114.79	Shut-In(2)
244	1094.88	115.64	End Shut-In(2)
245	1781.48	115.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	WOGM 2%w, 10%o, 15%m, 73%g	0.74
60.00	OCM 10%o, 90%m	0.30
0.00	600' 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

Murfin Drilling Co Inc

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 54163

DST#: 3

ATTN: Chuck Schmaltz

Test Start: 2014.07.31 @ 06:57:51

Tool Information

Drill Pipe:	Length: 3328.00 ft	Diameter: 3.80 inches	Volume: 46.68 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 277.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 48.04 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3617.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	80.00 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			3591.00	
Shut In Tool	5.00			3596.00	
Hydraulic tool	5.00			3601.00	
Jars	5.00			3606.00	
Safety Joint	2.00			3608.00	
Packer	5.00			3613.00	27.00 Bottom Of Top Packer
Packer	4.00			3617.00	
Stubb	1.00			3618.00	
Perforations	5.00			3623.00	
Change Over Sub	1.00			3624.00	
Recorder	0.00	8790	Inside	3624.00	
Recorder	0.00	8792	Outside	3624.00	
Drill Pipe	32.00			3656.00	
Change Over Sub	1.00			3657.00	
Perforations	10.00			3667.00	
Bullnose	3.00			3670.00	53.00 Bottom Packers & Anchor
Total Tool Length:	80.00				



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 54163

DST#: 3

ATTN: Chuck Schmaltz

Test Start: 2014.07.31 @ 06:57:51

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:

46000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5200.00 ppm

Filter Cake: 0.08 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
150.00	WOGM 2%w , 10%o, 15%m, 73%g	0.738
60.00	OCM 10%o, 90%m	0.295
0.00	600' GIP	0.000

Total Length: 210.00 ft

Total Volume: 1.033 bbl

Num Fluid Samples: 0

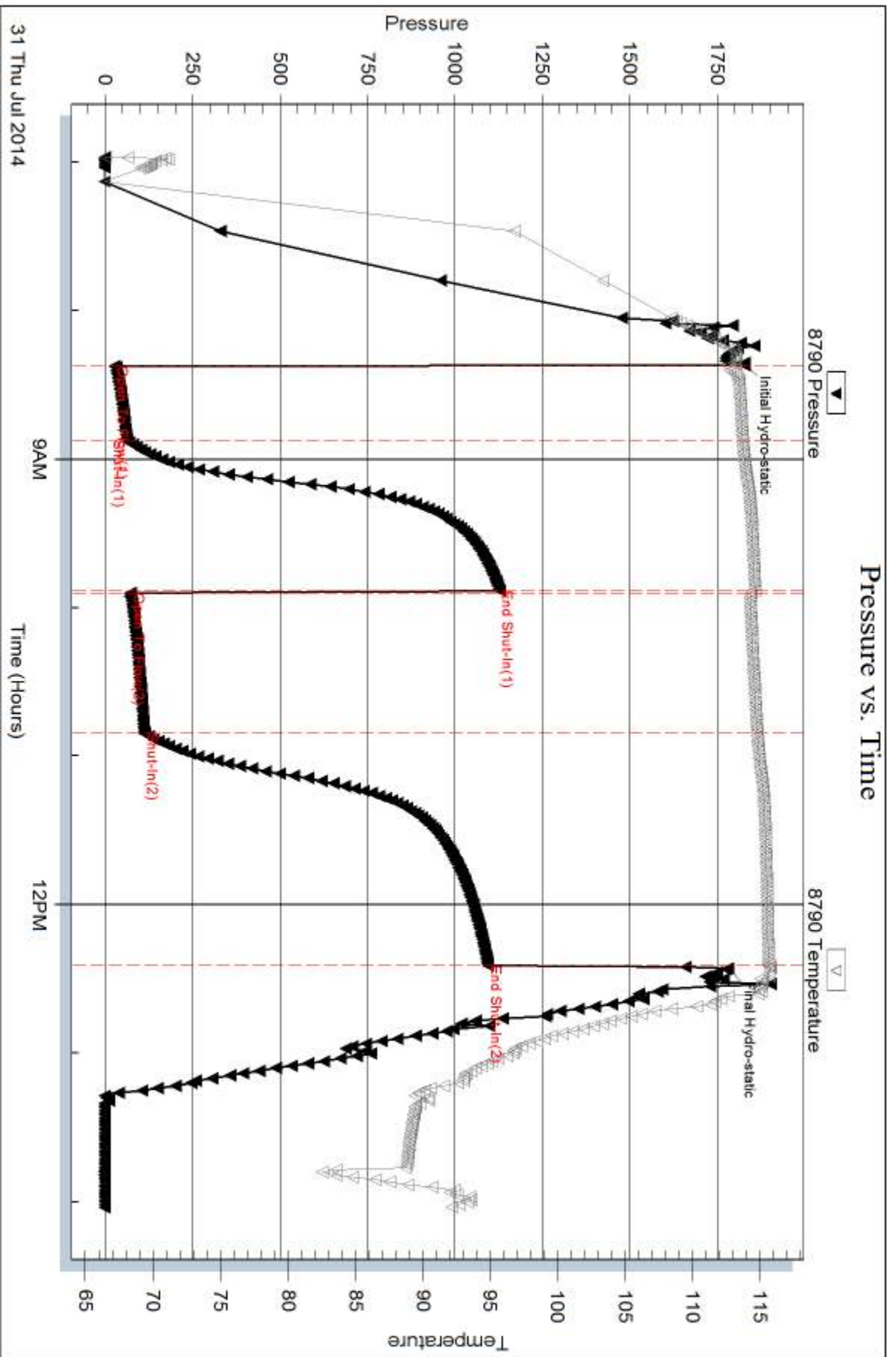
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

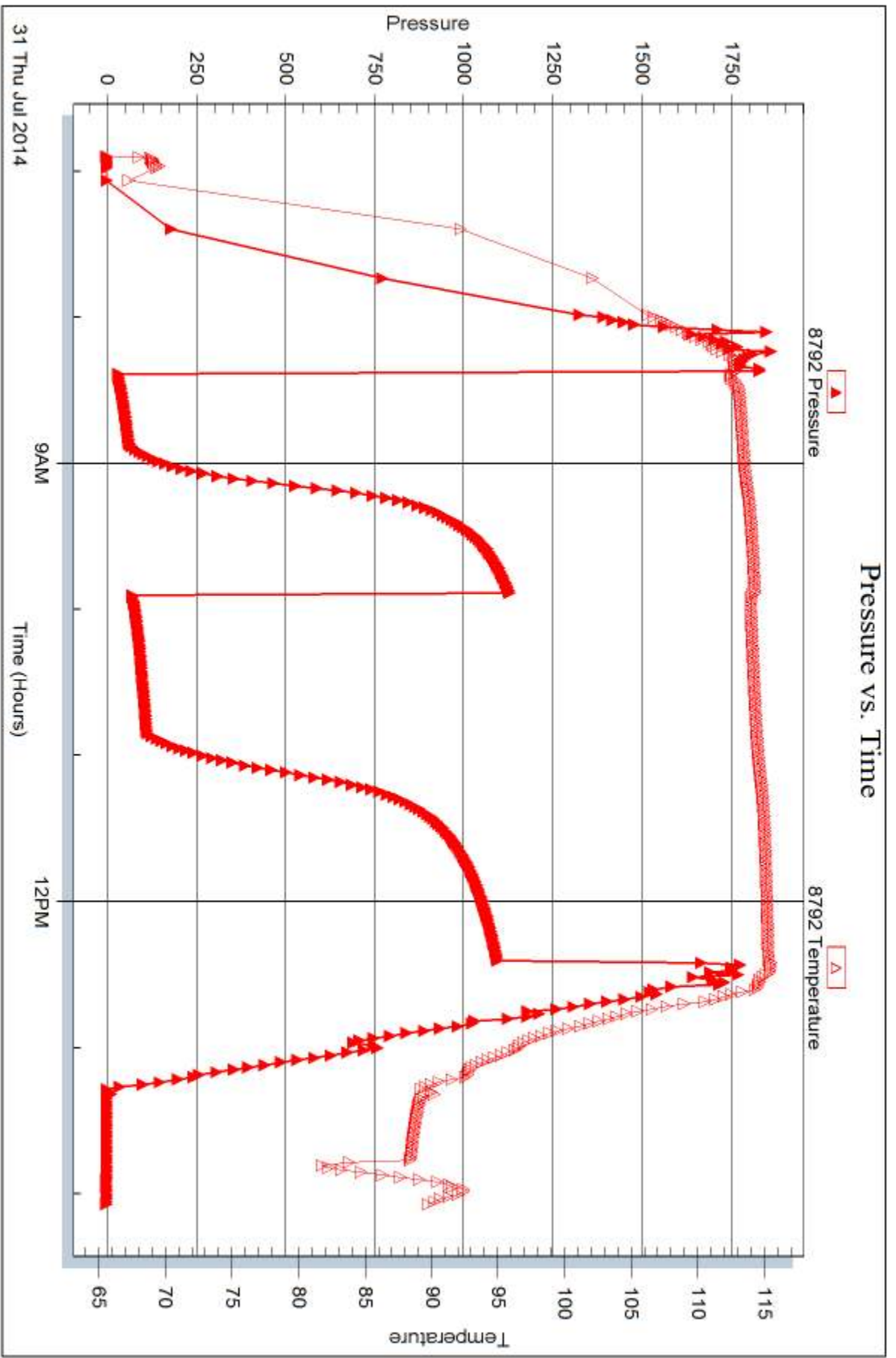


Serial #: 8792

Outside Murfin Drilling Co Inc

David #1-9

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 54163

Printed: 2014.08.05 @ 13:41:30



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water STE 300
Wichita KS 67202-1216

ATTN: Chuck Schmaltz

David #1-9

9-23s-12w Stafford,KS

Start Date: 2014.07.31 @ 21:05:24

End Date: 2014.08.01 @ 04:56:24

Job Ticket #: 54164 DST #: 4

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

Printed: 2014.08.05 @ 13:40:53



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water STE 300
Wichita KS 67202-1216
ATTN: Chuck Schmaltz

9-23s-12w Stafford,KS

David #1-9

Job Ticket: 54164

DST#: 4

Test Start: 2014.07.31 @ 21:05:24

GENERAL INFORMATION:

Formation: **Simpson**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:39:54
 Time Test Ended: 04:56:24
 Interval: **3677.00 ft (KB) To 3710.00 ft (KB) (TVD)**
 Total Depth: 3710.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Reynolds
 Unit No: 68
 Reference Elevations: 1856.00 ft (KB)
 1845.00 ft (CF)
 KB to GR/CF: 11.00 ft

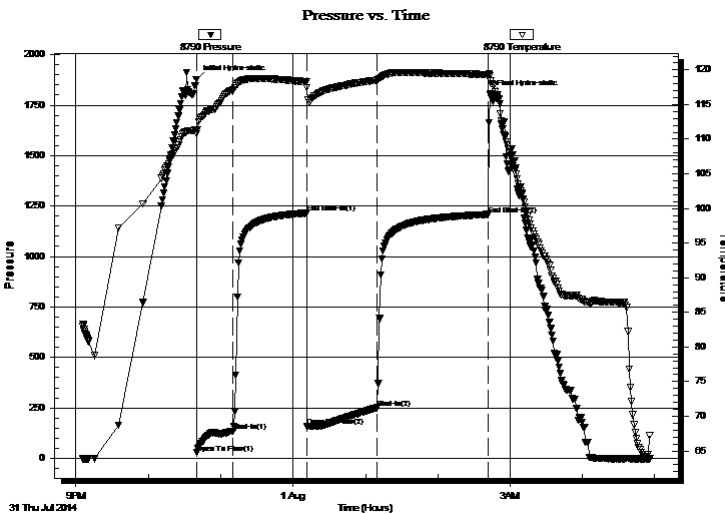
Serial #: 8790

Inside

Press@RunDepth: 250.37 psig @ 3682.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.07.31 End Date: 2014.08.01 Last Calib.: 2014.08.01
 Start Time: 21:05:29 End Time: 04:56:23 Time On Btm: 2014.07.31 @ 22:39:39
 Time Off Btm: 2014.08.01 @ 02:43:09

TEST COMMENT: 30 IF: Strong blow . BOB @ 7min.
 60 IS: Good blow . surf. - 8"
 60 FF: Strong blow . BOB @ 8min.
 90 FSI: Good blow . surf. - 6"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1877.85	111.37	Initial Hydro-static
1	27.37	110.78	Open To Flow (1)
31	135.87	117.09	Shut-In(1)
92	1215.60	118.28	End Shut-In(1)
92	160.50	117.46	Open To Flow (2)
151	250.37	118.51	Shut-In(2)
243	1208.65	119.29	End Shut-In(2)
244	1802.49	119.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
705.00	Clean Gassy Oil 25%g, 75%o	7.37
0.00	2210' 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

Murfin Drilling Co Inc

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 54164

DST#: 4

ATTN: Chuck Schmaltz

Test Start: 2014.07.31 @ 21:05:24

Tool Information

Drill Pipe:	Length: 3391.00 ft	Diameter: 3.80 inches	Volume: 47.57 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 277.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 48.93 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	3677.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 ft			
Tool Length:	60.00 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			3655.00	
Shut In Tool	5.00			3660.00	
Hydraulic tool	5.00			3665.00	
Jars	5.00			3670.00	
Safety Joint	2.00			3672.00	
Packer	5.00			3677.00	23.00 Bottom Of Top Packer
Packer - Shale	4.00			3681.00	
Stubb	1.00			3682.00	
Recorder	0.00	8790	Inside	3682.00	
Recorder	0.00	8792	Outside	3682.00	
Perforations	29.00			3711.00	
Bullnose	3.00			3714.00	37.00 Anchor Tool

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 54164

DST#: 4

ATTN: Chuck Schmaltz

Test Start: 2014.07.31 @ 21:05:24

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:

5800 ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5300.00 ppm

Filter Cake: 0.08 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
705.00	Clean Gassy Oil 25%g, 75%o	7.366
0.00	2210' GIP	0.000

Total Length: 705.00 ft

Total Volume: 7.366 bbl

Num Fluid Samples: 0

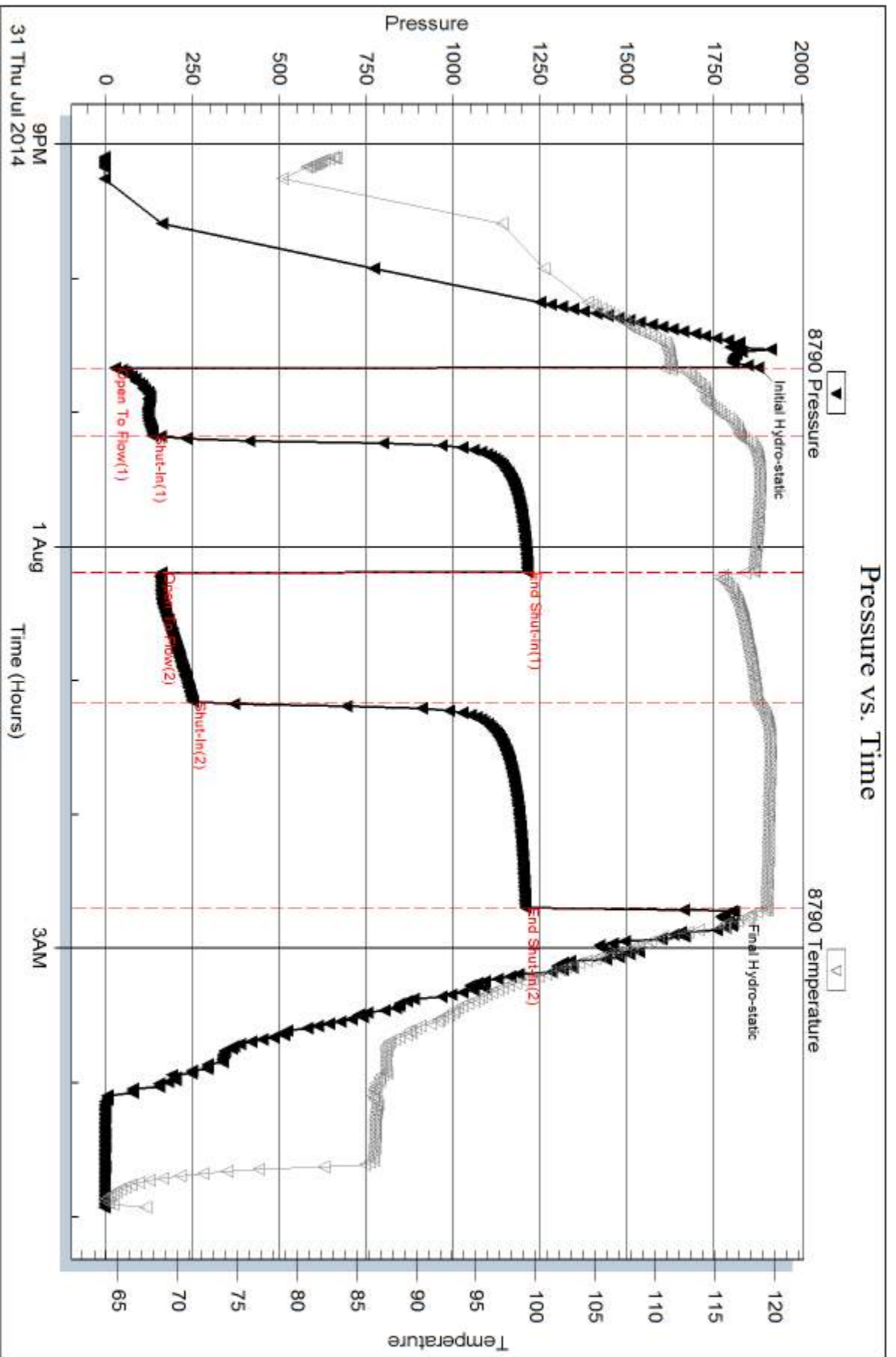
Num Gas Bombs: 0

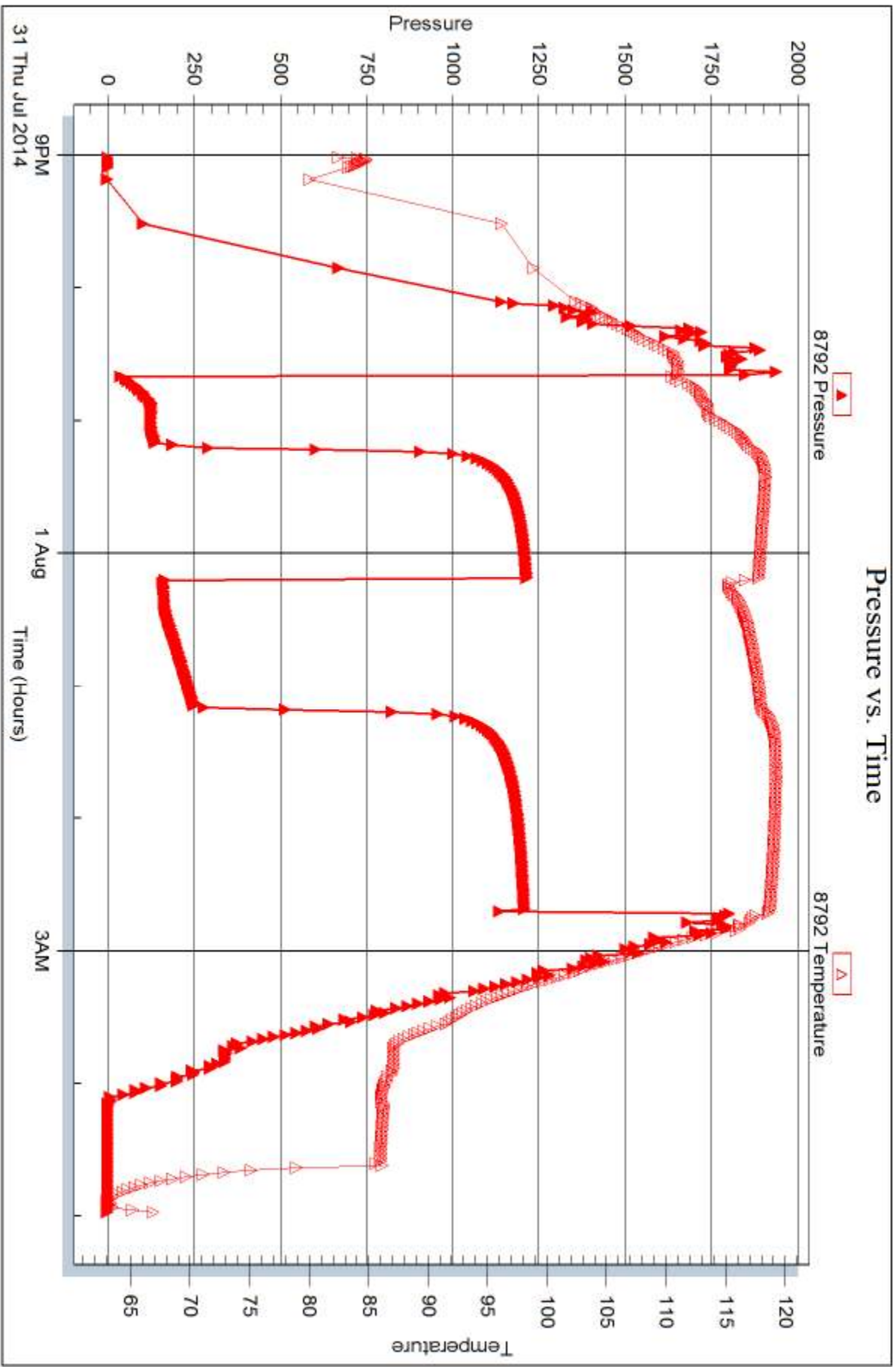
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water STE 300
Wichita KS 67202-1216

ATTN: Chuck Schmaltz

David #1-9

9-23s-12w Stafford,KS

Start Date: 2014.08.01 @ 13:14:50

End Date: 2014.08.01 @ 21:33:35

Job Ticket #: 54165 DST #: 5

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

Printed: 2014.08.05 @ 13:40:03



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N. Water STE 300
 Wichita KS 67202-1216
 ATTN: Chuck Schmalz

9-23s-12w Stafford,KS

David #1-9

Job Ticket: 54165

DST#: 5

Test Start: 2014.08.01 @ 13:14:50

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:51:50
 Time Test Ended: 21:33:35
 Interval: **3735.00 ft (KB) To 3745.00 ft (KB) (TVD)**
 Total Depth: 3745.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Reynolds
 Unit No: 68
 Reference Elevations: 1856.00 ft (KB)
 1845.00 ft (CF)
 KB to GR/CF: 11.00 ft

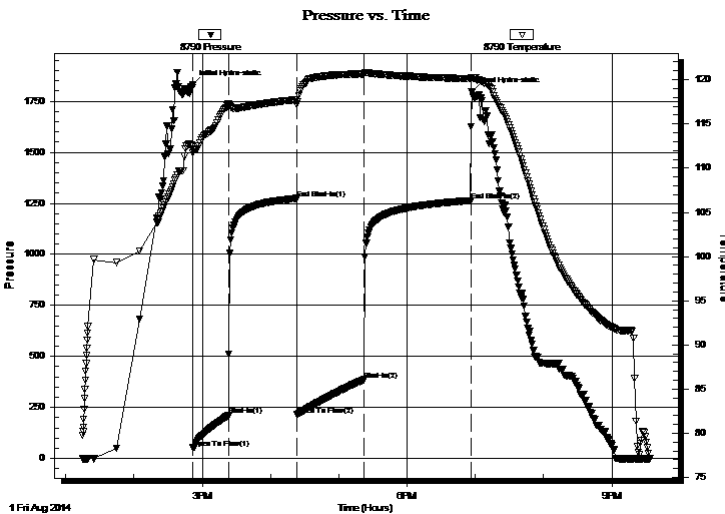
Serial #: 8790

Inside

Press@RunDepth: 386.26 psig @ 3740.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.01 End Date: 2014.08.01 Last Calib.: 2014.08.01
 Start Time: 13:14:55 End Time: 21:33:34 Time On Btm: 2014.08.01 @ 14:51:35
 Time Off Btm: 2014.08.01 @ 18:56:50

TEST COMMENT: 30 IF: Strong blow . BOB @ 5 min.
 60 IS: Weak blow . surf. - 2"
 60 FF: Strong blow . BOB @ 14 min died to 7"
 90 FSI: No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1829.86	112.51	Initial Hydro-static
1	51.45	111.75	Open To Flow (1)
32	209.80	117.09	Shut-In(1)
92	1274.23	117.73	End Shut-In(1)
92	214.30	117.46	Open To Flow (2)
151	386.26	120.66	Shut-In(2)
245	1263.41	120.11	End Shut-In(2)
246	1799.05	120.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MGOCW 5%m, 5%g, 10%o, 80%w	0.59
120.00	MGWCO 5%m, 5%g, 20%w, 70%o	0.59
845.00	Clean Gassy Oil 15%g, 85%o	11.52
0.00	850' 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

Murfin Drilling Co Inc

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 54165

DST#: 5

ATTN: Chuck Schmaltz

Test Start: 2014.08.01 @ 13:14:50

Tool Information

Drill Pipe:	Length: 3454.00 ft	Diameter: 3.80 inches	Volume: 48.45 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 277.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 49.81 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	3735.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	14.00 ft				
Tool Length:	37.00 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			3713.00	
Shut In Tool	5.00			3718.00	
Hydraulic tool	5.00			3723.00	
Jars	5.00			3728.00	
Safety Joint	2.00			3730.00	
Packer	5.00			3735.00	23.00 Bottom Of Top Packer
Packer - Shale	4.00			3739.00	
Stubb	1.00			3740.00	
Recorder	0.00	8790	Inside	3740.00	
Recorder	0.00	8792	Outside	3740.00	
Perforations	6.00			3746.00	
Bullnose	3.00			3749.00	14.00 Anchor Tool

Total Tool Length: 37.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 54165

DST#: 5

ATTN: Chuck Schmaltz

Test Start: 2014.08.01 @ 13:14:50

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:

26000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6200.00 ppm

Filter Cake: 0.08 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	MGOCW 5%m, 5%g, 10%o, 80%w	0.590
120.00	MGWCO 5%m, 5%g, 20%w, 70%o	0.590
845.00	Clean Gassy Oil 15%g, 85%o	11.516
0.00	850' GIP	0.000

Total Length: 1085.00 ft

Total Volume: 12.696 bbl

Num Fluid Samples: 0

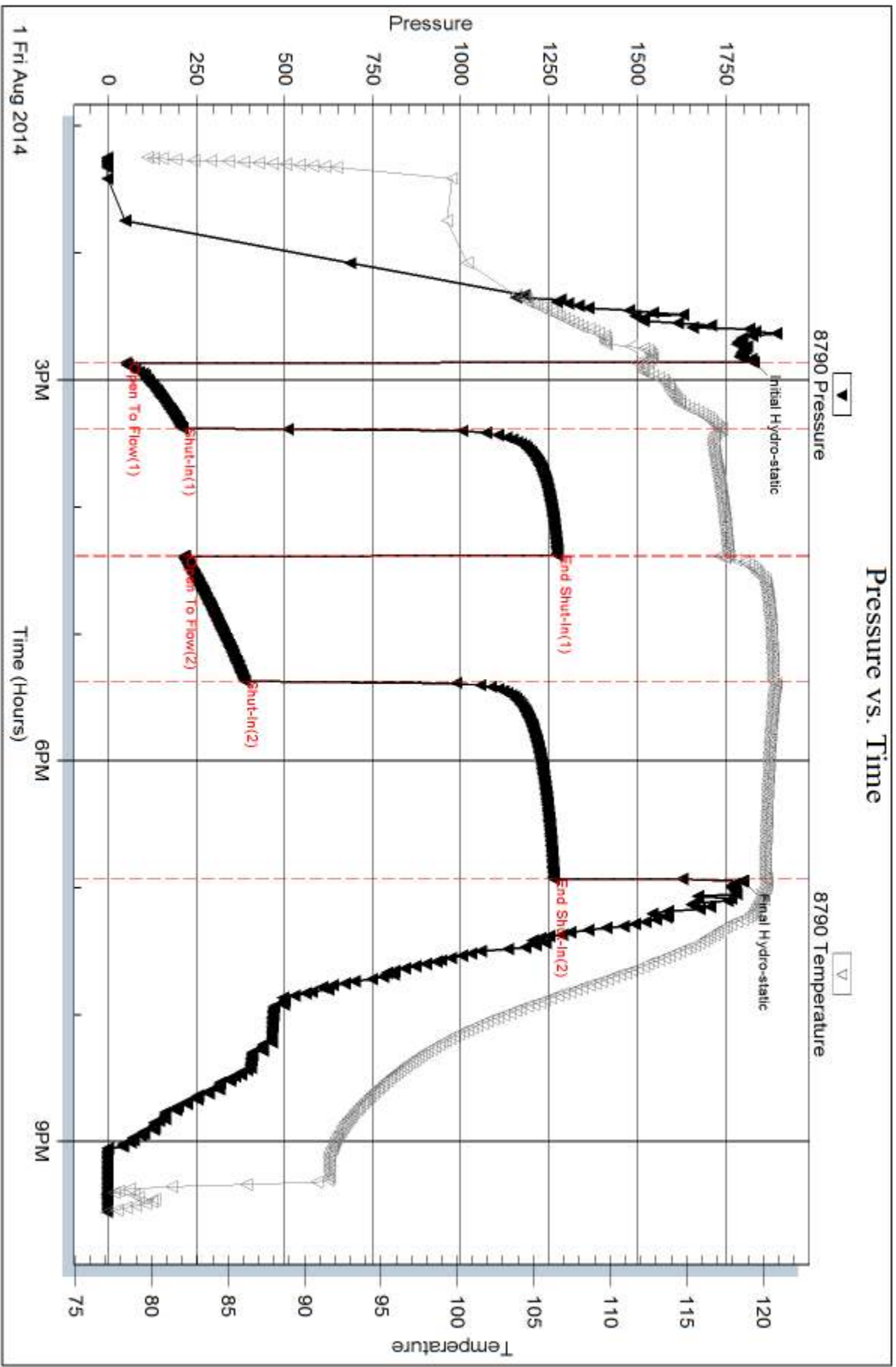
Num Gas Bombs: 0

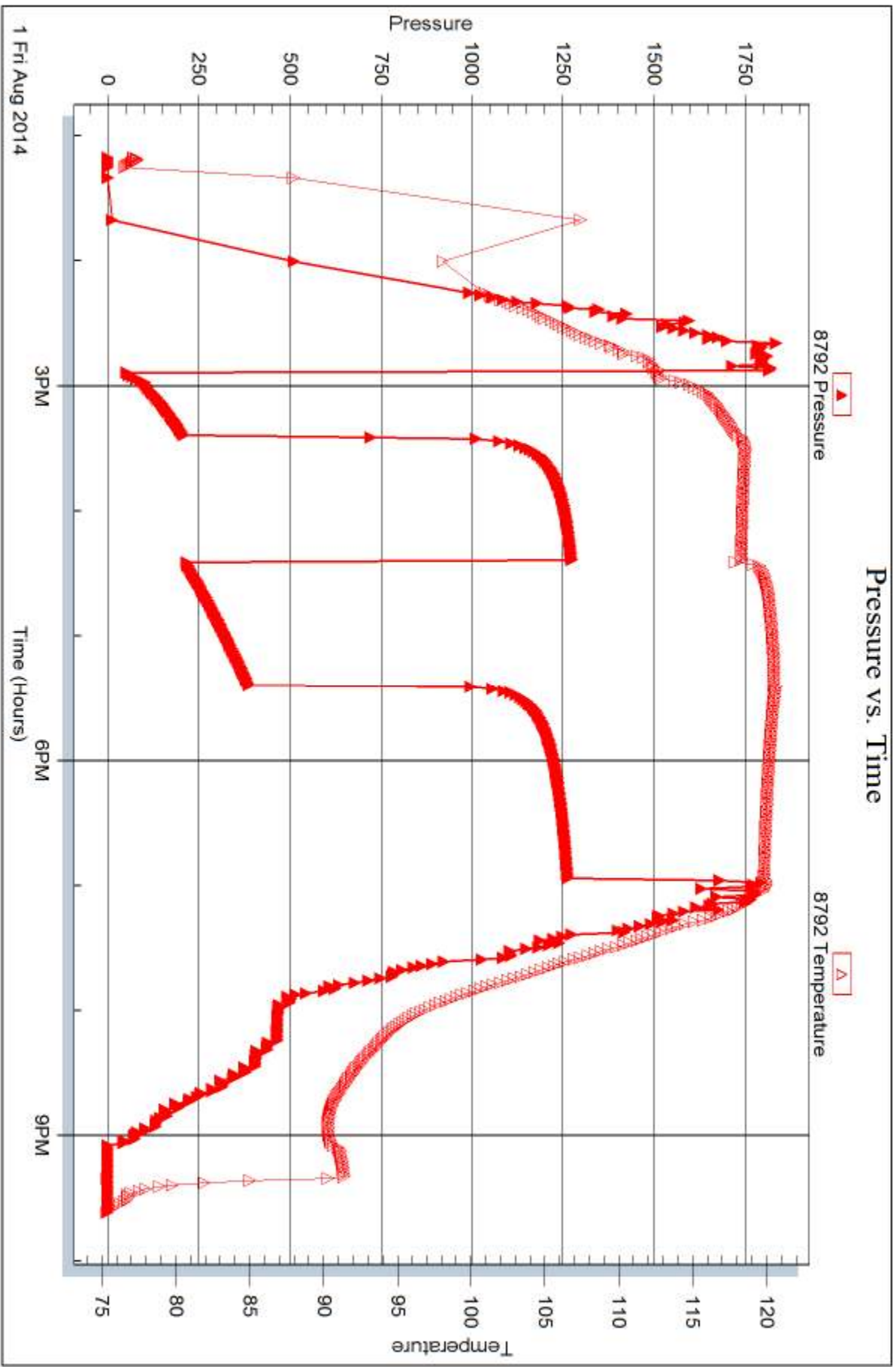
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water STE 300
Wichita KS 67202-1216

ATTN: Chuck Schmaltz

David #1-9

9-23s-12w Stafford,KS

Start Date: 2014.08.02 @ 02:33:27

End Date: 2014.08.02 @ 10:22:27

Job Ticket #: 54166 DST #: 6

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

Printed: 2014.08.05 @ 13:39:30



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N. Water STE 300
 Wichita KS 67202-1216
 ATTN: Chuck Schmalz

9-23s-12w Stafford,KS

David #1-9

Job Ticket: 54166

DST#: 6

Test Start: 2014.08.02 @ 02:33:27

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 04:27:42
 Tester: Ryan Reynolds
 Time Test Ended: 10:22:27
 Unit No: 68
 Interval: **3745.00 ft (KB) To 3755.00 ft (KB) (TVD)**
 Reference Elevations: 1856.00 ft (KB)
 Total Depth: 3755.00 ft (KB) (TVD)
 1845.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 11.00 ft

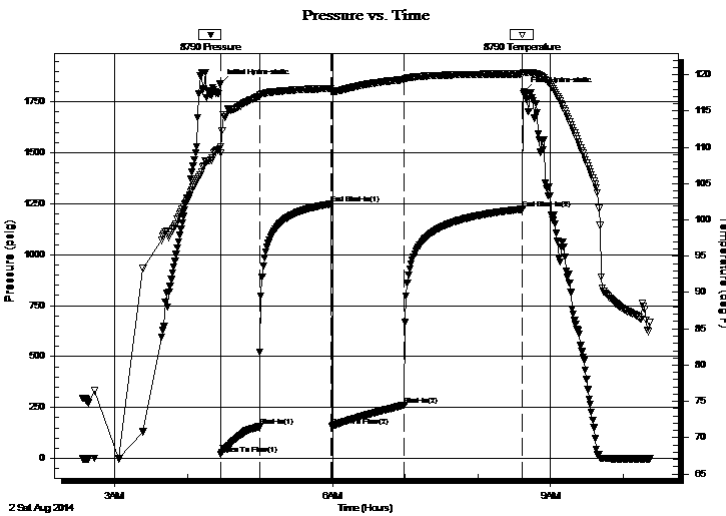
Serial #: 8790

Inside

Press@RunDepth: 262.00 psig @ 3746.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.02 End Date: 2014.08.02 Last Calib.: 2014.08.02
 Start Time: 02:33:32 End Time: 10:22:26 Time On Btm: 2014.08.02 @ 04:27:27
 Time Off Btm: 2014.08.02 @ 08:37:57

TEST COMMENT: IF: Good blow . surf. - 8"
 IS: No blow
 FF: Good blow . surf. - 8"
 FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1840.73	110.04	Initial Hydro-static
1	22.02	109.17	Open To Flow (1)
32	155.89	117.02	Shut-In(1)
92	1249.34	118.11	End Shut-In(1)
92	158.40	117.71	Open To Flow (2)
152	262.00	119.33	Shut-In(2)
250	1223.73	120.11	End Shut-In(2)
251	1798.56	120.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
565.00	GMCW 5%g, 5%m, 90%w	5.40

* 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

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 54166

DST#: 6

ATTN: Chuck Schmaltz

Test Start: 2014.08.02 @ 02:33:27

Tool Information

Drill Pipe:	Length: 3454.00 ft	Diameter: 3.80 inches	Volume: 48.45 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 277.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 49.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3745.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	37.00 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			3719.00	
Shut In Tool	5.00			3724.00	
Hydraulic tool	5.00			3729.00	
Jars	5.00			3734.00	
Safety Joint	2.00			3736.00	
Packer	5.00			3741.00	27.00 Bottom Of Top Packer
Packer	4.00			3745.00	
Stubb	1.00			3746.00	
Recorder	0.00	8790	Inside	3746.00	
Recorder	0.00	8792	Outside	3746.00	
Perforations	6.00			3752.00	
Bullnose	3.00			3755.00	10.00 Bottom Packers & Anchor

Total Tool Length: 37.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

9-23s-12w Stafford,KS

250 N. Water STE 300
Wichita KS 67202-1216

David #1-9

Job Ticket: 54166

DST#: 6

ATTN: Chuck Schmaltz

Test Start: 2014.08.02 @ 02:33:27

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:

24000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6200.00 ppm

Filter Cake: 0.08 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
565.00	GMCW 5%g, 5%m, 90%w	5.402

Total Length: 565.00 ft

Total Volume: 5.402 bbl

Num Fluid Samples: 0

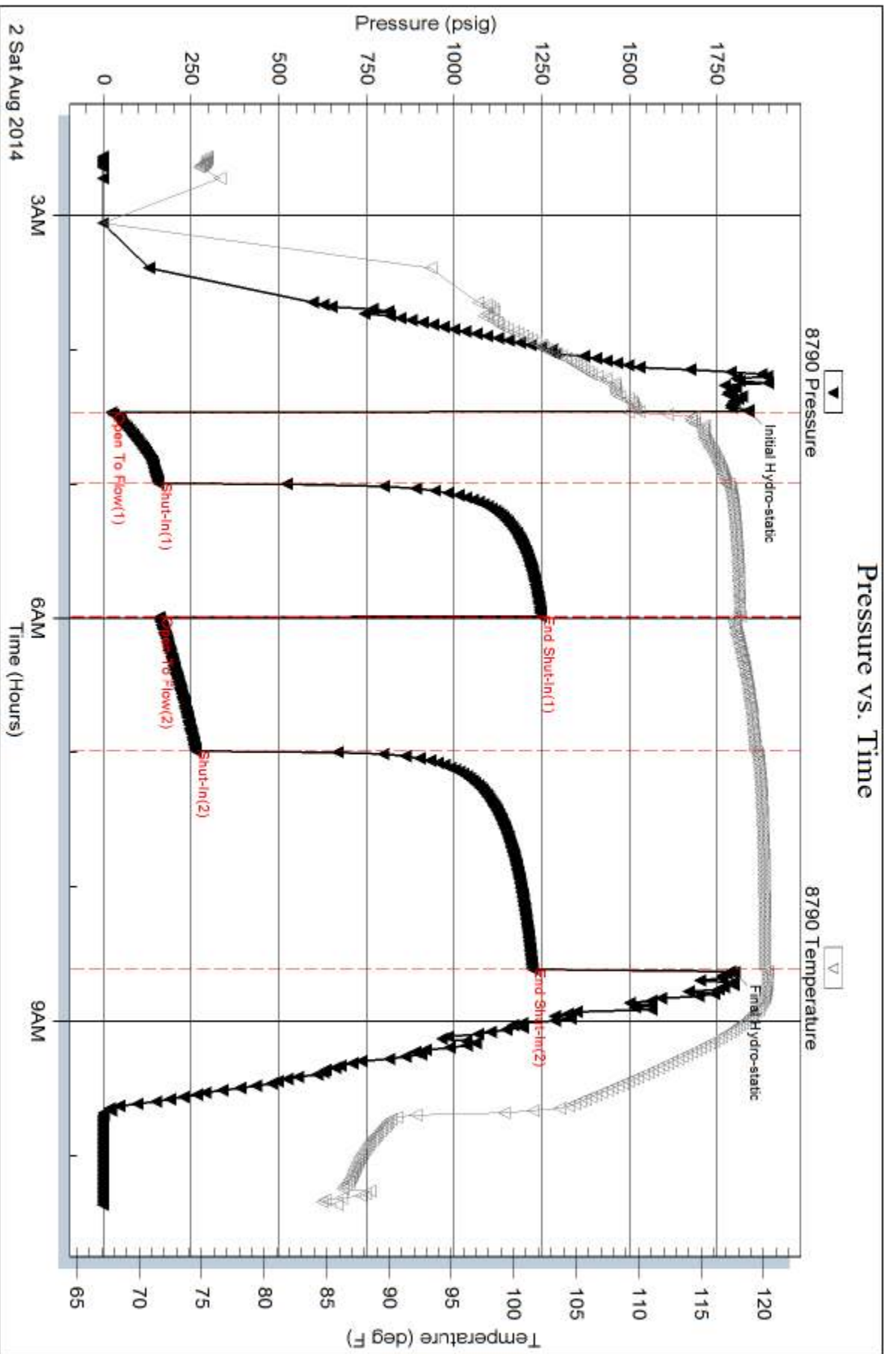
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

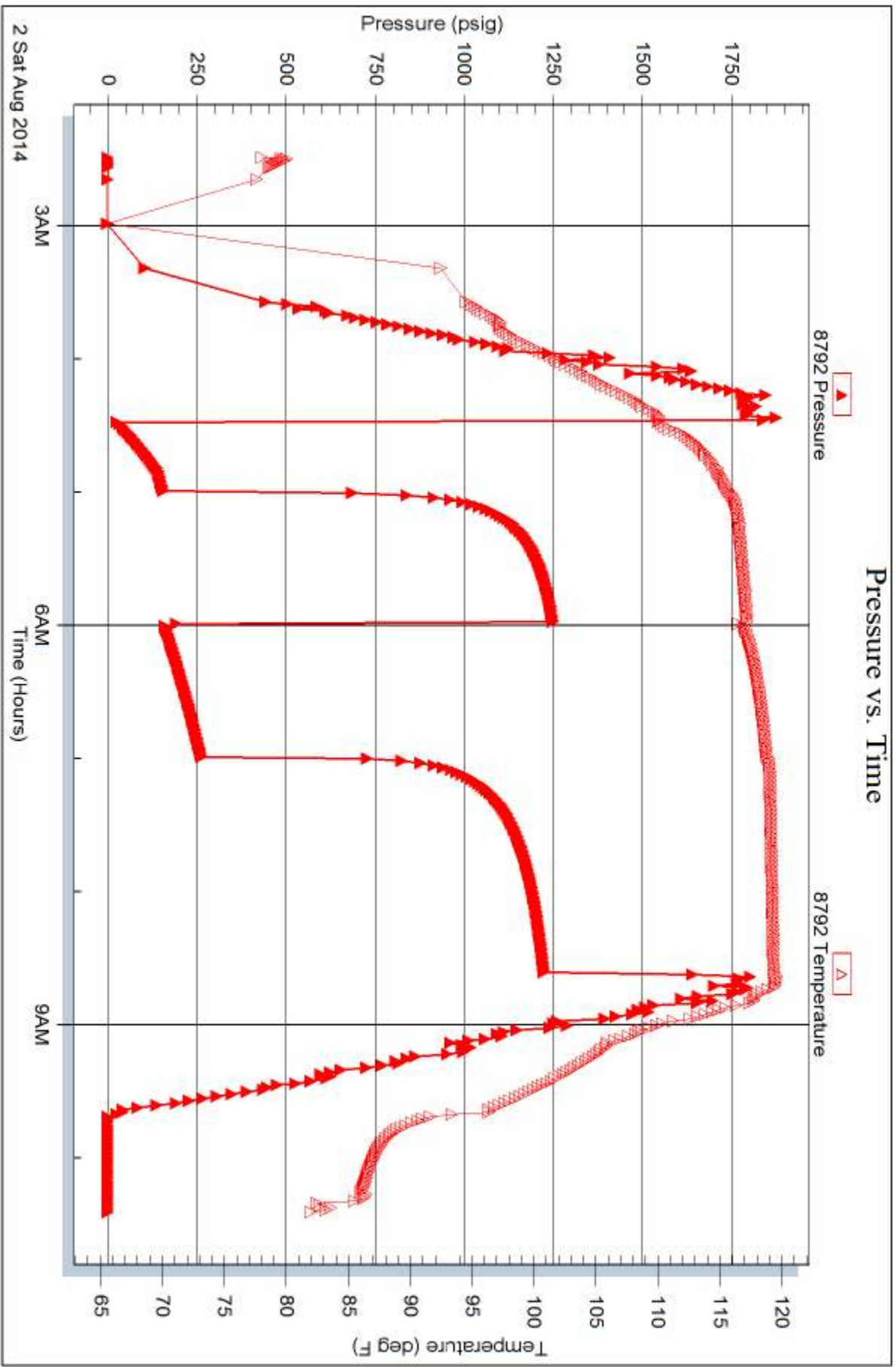


Serial #: 8792

Outside Murfin Drilling Co Inc

David #1-9

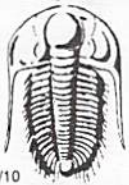
DST Test Number: 6



Trilobite Testing, Inc

Ref. No: 54166

Printed: 2014.08.05 @ 13:39:31



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58835

Well Name & No. DAVID #1-9 Test No. 1 Date 7-29-14
 Company MURFIN DRILLING Co. Inc Elevation 1856 KB 1845 GL
 Address 250 N. WATER, STE 300 WICHITA, Ks 67202-1216
 Co. Rep / Geo. Chuck Schmalz Rig MURFIN r1921
 Location: Sec. 9 Twp. 23^s Rge. 12^w Co. STAFFORD State Ks

Interval Tested 3324-3424 Zone Tested LKC B-F
 Anchor Length 100 Drill Pipe Run 3050 Mud Wt. 9.2
 Top Packer Depth 3319 Drill Collars Run 270 Vis 50
 Bottom Packer Depth 3324 Wt. Pipe Run - WL 6.4
 Total Depth 3424 Chlorides 3800 ppm System LCM TR
 Blow Description TFP - WEAK Blow Thru-out 1/2" To 1 1/2" Blow
ISTP - NO Blow
FFP - NO Blow
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>mud</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 120 BHT 112 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1596</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1810</u>
(B) First Initial Flow <u>34</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1935</u>
(C) First Final Flow <u>48</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2125</u>
(D) Initial Shut-In <u>1075</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>0025</u>
(E) Second Initial Flow <u>64</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0209</u>
(F) Second Final Flow <u>84</u>	<input checked="" type="checkbox"/> Mileage <u>180RT</u> 102.30	Comments
(G) Final Shut-In <u>1031</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1578</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<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>30</u>	<input type="checkbox"/> Day Standby	Total <u>1827.30</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1827.30</u>	

Approved By _____

Our Representative Ray Schwager

Thank you

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. **58836**

Well Name & No. David #1-9 Test No. 2 Date 7-30-14
 Company Murfin Drilling Co, Inc Elevation 1856 KB 1845 GL
 Address 250 N. WATER, STE 300 WICHITA, Ks 67202-1216
 Co. Rep / Geo. Chuck Schmalte Rig Murfin rig 21
 Location: Sec. 9 Twp. 23^s Rge. 12^w Co. Stafford State Ks

Interval Tested 3463-3565 Zone Tested LKC H-K
 Anchor Length 102 Drill Pipe Run 3175 Mud Wt. 9.3
 Top Packer Depth 3458 Drill Collars Run 270 Vis 52
 Bottom Packer Depth 3463 Wt. Pipe Run - WL 6.4
 Total Depth 3565 Chlorides 5200 ppm System LCM 1#

Blow Description IFP - STRONG BLOW IN 1 MIN
ISIP - NO BLOW
FFP - STRONG BLOW, GTS IN 24 MIN, TO WEAK TO GAUGE
FSIP - 6" BLOW BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>MGO</u>	<u>30</u>	<u>40</u>	<u>30</u>	
<u>180</u>	<u>CO</u>				

Rec Total 260 BHT 114 Gravity 38 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1689</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1235</u>
(B) First Initial Flow <u>47</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1325</u>
(C) First Final Flow <u>74</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1455</u>
(D) Initial Shut-In <u>1049</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1855</u>
(E) Second Initial Flow <u>65</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2054</u>
(F) Second Final Flow <u>109</u>	<input checked="" type="checkbox"/> Mileage <u>102.30</u>	Comments
(G) Final Shut-In <u>1007</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1647</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

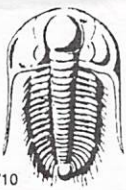
Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1827.30
 Total 1827.30
 MP/DST Disc't

Approved By _____ Our Representative RAY SCHWAGER *Thank you*

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. 54163

Well Name & No. David 1-9 Test No. 3 Date 7-31-14
 Company Murfin Drilling Co., Inc. Elevation 1856 KB 1845 GL
 Address 250 N. Water Ste. 300 Wichita, KS 67202-1216
 Co. Rep / Geo. Ken Dean / Chuck Schmaltz Rig Murfin 21
 Location: Sec. 9 Twp. 23s Rge. 12w Co. Stafford State KS

Interval Tested 3617 - 3670 Zone Tested Viola
 Anchor Length 53 Drill Pipe Run 3328 Mud Wt. 9.3
 Top Packer Depth 3612 Drill Collars Run 277 Vis 55
 Bottom Packer Depth 3617 Wt. Pipe Run ∅ WL 6.4
 Total Depth 3670 Chlorides 5200 ppm System LCM 1 #
 Blow Description IF: Strong blow. BOB @ 14 min. IST: No blow
FF: Fair blow. Surf. - 4" FST: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>600</u>	<u>GIP</u>				
<u>60</u>	<u>OGM</u>		<u>10</u>		<u>90</u>
<u>150</u>	<u>WOGM</u>	<u>73</u>	<u>10</u>	<u>2</u>	<u>15</u>

Rec Total 210 BHT 115 Gravity N/C API RW .13 @ 85 °F Chlorides 46000 ppm
 (A) Initial Hydrostatic 1827 Test 1150 T-On Location 0600
 (B) First Initial Flow 27 Jars 250 T-Started 0658
 (C) First Final Flow 62 Safety Joint 75 T-Open 0822
 (D) Initial Shut-In 1128 Circ Sub _____ T-Pulled 1232
 (E) Second Initial Flow 73 Hourly Standby _____ T-Out 1402
 (F) Second Final Flow 111 Mileage 66 102.30
 (G) Final Shut-In 1095 Sampler _____
 (H) Final Hydrostatic 1781 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 40
 Final Shut-In 90

Sub Total 0
 Total 1577.30
 Sub Total 1577.30

Approved By [Signature] Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged or 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. 54164

Well Name & No. David 1-9 Test No. 4 Date 7-31-14
 Company Murfin Drlg. Co., Inc. Elevation 1856 KB 1845 GL
 Address 250 N. Water Ste. 300 Wichita, KS 67202-1216
 Co. Rep / Geo. Ken Dean / Chuck Schmalz Rig Murfin 21
 Location: Sec. 9 Twp. 23s. Rge. 12w Co. Stafford State KS

Interval Tested 3677-3710 Zone Tested Simpson
 Anchor Length 33 Drill Pipe Run 3391 Mud Wt. 9.3
 Top Packer Depth 3672 Drill Collars Run 277 Vis 68
 Bottom Packer Depth 3677 Wt. Pipe Run Ø WL 7.2
 Total Depth 3710 Chlorides 5800 ppm System LCM trc

Blow Description IF: Strong blow. BOB @ 7min. Surf. - 8" ISI: Good blow.
FF: Strong blow. BOB @ 8min. Surf. - 6" FST: Good blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>2210</u>	<u>GIP</u>				
<u>705</u>	<u>Clean Gassy Oil</u>	<u>25</u>	<u>75</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 705 BHT 119 Gravity 35 API RW N/C @ W/C °F Chlorides 5800 ppm

(A) Initial Hydrostatic	<u>1878</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>2045</u>
(B) First Initial Flow	<u>27</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>2105</u>
(C) First Final Flow	<u>136</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>2240</u>
(D) Initial Shut-In	<u>1216</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>0240</u>
(E) Second Initial Flow	<u>160</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>0456</u>
(F) Second Final Flow	<u>250</u>	<input checked="" type="checkbox"/> Mileage	<u>66</u> 102.30	Comments	
(G) Final Shut-In	<u>1209</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>1802</u>	<input type="checkbox"/> Straddle			

Initial Open 30 Shale Packer 250
 Initial Shut-In 60 Extra Packer
 Final Flow 60 Extra Recorder
 Final Shut-In 90 Day Standby
 Accessibility
 Sub Total 1827.30 MP/DST Disc't

Approved By [Signature] Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged or 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. 54165

Well Name & No. David 1-9 Test No. 5 Date 8-1-14
 Company Murfin Drilling Co., Inc. Elevation 1856 KB 1845 GL
 Address 250 N. Water Ste. 300 Wichita, KS 67202-1216
 Co. Rep / Geo. Ken Dean / Chuck Schmalz Rig Murfin 21
 Location: Sec. 9 Twp. 23s. Rge. 12w Co. Stafford State KS

Interval Tested 3735 - 3745 Zone Tested Arbuckle
 Anchor Length 10' Drill Pipe Run 3454 Mud Wt. 9.3
 Top Packer Depth 3730 Drill Collars Run 277 Vis 58
 Bottom Packer Depth 3735 Wt. Pipe Run Ø WL 8.0
 Total Depth 3745 Chlorides 6200 ppm System LCM 1/2 #

Blow Description IF: Strong blow. BoB @ 5min. ISI: Weak blow. surf.
2". FF: Strong blow. BoB @ 14min. - 7"
FST: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>850</u>	<u>GIF</u>				
<u>845</u>	<u>Clean gassy oil</u>				
<u>120</u>	<u>MGWCD</u>	<u>5</u>	<u>70</u>	<u>20</u>	<u>5</u>
<u>120</u>	<u>MGOGW</u>	<u>5</u>	<u>10</u>	<u>80</u>	<u>5</u>

Rec Total 1085 BHT 120 Gravity 40 API RW 22 @ 85° F Chlorides 2600 ppm

(A) Initial Hydrostatic 1830 Test 1150 T-On Location 1300
 (B) First Initial Flow 51 Jars 250 T-Started 1315
 (C) First Final Flow 210 Safety Joint 75 T-Open 1452
 (D) Initial Shut-In 1274 Circ Sub _____ T-Pulled 1853
 (E) Second Initial Flow 214 Hourly Standby _____ T-Out 2134
 (F) Second Final Flow 386 Mileage 66 102.30 Comments _____
 (G) Final Shut-In 1263 Sampler _____
 (H) Final Hydrostatic 1799 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 1827.30
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1827.30

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

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54166

Well Name & No. David 1-9 Test No. 6 Date 8-2-14
 Company Murfin Drilg. Co., Inc. Elevation 1856 KB 1845 GL
 Address 250 N. Water Ste. 300 Wichita, KS 67202-1216
 Co. Rep / Geo. Ken Dean/Chuck Schmalz Rig Murfin 21
 Location: Sec. 9 Twp. 23s Rge. 12w Co. Stafford State KS

Interval Tested 3745-3755 Zone Tested Arbuckle
 Anchor Length 10 Drill Pipe Run 3454 Mud Wt. 9.3
 Top Packer Depth 3740 Drill Collars Run 277 Vis 58
 Bottom Packer Depth 3745 Wt. Pipe Run Ø WL 8.0
 Total Depth 3755 Chlorides 6200 ppm System LCM 1/2#
 Blow Description IF: Good blow. surf. - 8" ISI: No blow
FF: Good blow. surf. - 8" FSTI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>565</u>	<u>GMCW</u>	<u>5</u>	<u>90</u>	<u>5</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 565 BHT 120 Gravity N/C API RW 25@80 °F Chlorides 2400 ppm
 (A) Initial Hydrostatic 1841 Test 1150 T-On Location 0230
 (B) First Initial Flow 22 Jars 250 T-Started 0233
 (C) First Final Flow 156 Safety Joint 75 T-Open 0428
 (D) Initial Shut-In 1249 Circ Sub _____ T-Pulled 0830
 (E) Second Initial Flow 158 Hourly Standby _____ T-Out 1022
 (F) Second Final Flow 262 Mileage 66 102.30 Comments _____
 (G) Final Shut-In 1224 Sampler _____
 (H) Final Hydrostatic 1799 Straddle _____
 Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1827.30
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1827.30

Approved By

Chuck Schmalz

Our Representative

Ryan Reynolds

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