



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE. 300
Wichita KS 67202

ATTN: Robert Hendrix

Sacred Heart #1-36

36 5 33 Rawlins,KS

Start Date: 2013.04.28 @ 01:10:00

End Date: 2013.04.28 @ 08:44:30

Job Ticket #: 50663 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.05.03 @ 09:58:10

Murfin Drilling Co. 36 5 33 Rawlins,KS Sacred Heart #1-36 DST # 1 Toronto-LKC A 2013.04.28



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co.
 250 N. Water STE. 300
 Wichita KS 67202
 ATTN: Robert Hendrix

36 5 33 Rawlins, KS
Sacred Heart #1-36
 Job Ticket: 50663 **DST#: 1**
 Test Start: 2013.04.28 @ 01:10:00

GENERAL INFORMATION:

Formation: **Toronto-LKC A**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:10:30
 Time Test Ended: 08:44:30
 Interval: **4006.00 ft (KB) To 4094.00 ft (KB) (TVD)**
 Total Depth: 4094.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Charles Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 3154.00 ft (KB)
 3142.00 ft (CF)
 KB to GR/CF: 12.00 ft

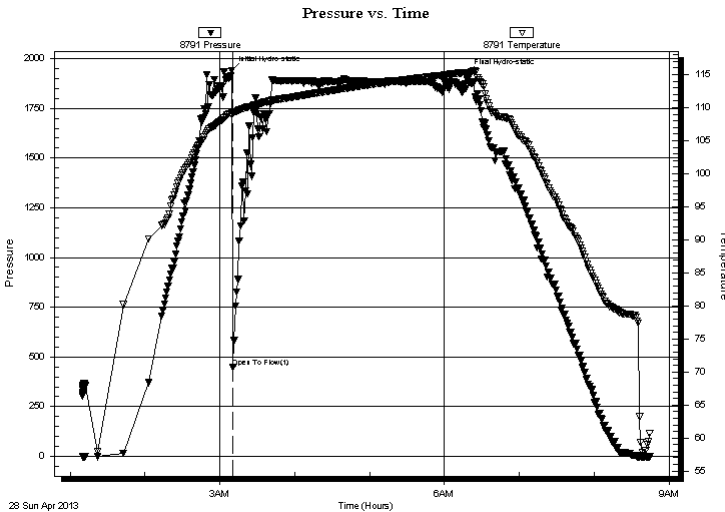
Serial #: 8791

Inside

Press @ Run Depth: psig @ 4007.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.28 End Date: 2013.04.28 Last Calib.: 2013.04.28
 Start Time: 01:10:01 End Time: 08:44:30 Time On Btm: 2013.04.28 @ 03:09:30
 Time Off Btm: 2013.04.28 @ 06:18:00

TEST COMMENT: IF: Strong blow, Built to B.O.B in 45 sec.
 IS: Bled off, No blow back over 60 mins.
 FF Strong blow, Built to B.O.B in 2 mins.
 FS: Bled off, No blow back over 60 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1940.33	109.34	Initial Hydro-static
1	449.18	109.14	Open To Flow (1)
189	1922.08	115.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2604.00	mud-100%	34.40

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50663

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.04.28 @ 01:10:00

Tool Information

Drill Pipe:	Length: 3761.00 ft	Diameter: 3.80 inches	Volume: 52.76 bbl	Tool Weight:	2400.00 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: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose:	85000.00 lb
			<u>Total Volume: 53.91 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4006.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	88.00 ft				
Tool Length:	111.00 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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Hydraulic tool	5.00			3988.00	
Jars	5.00			3993.00	
Safety Joint	3.00			3996.00	
Packer	5.00			4001.00	23.00 Bottom Of Top Packer
Packer	5.00			4006.00	
Stubb	1.00			4007.00	
Recorder	0.00	8791	Inside	4007.00	
Recorder	0.00	8651	Outside	4007.00	
Perforations	19.00			4026.00	
change Over Sub	1.00			4027.00	
Drill Pipe	63.00			4090.00	
Change Over Sub	1.00			4091.00	
Bullnose	3.00			4094.00	88.00 Bottom Packers & Anchor

Total Tool Length: 111.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50663

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.04.28 @ 01:10:00

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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 4.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 25000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2604.00	mud-100%	34.396

Total Length: 2604.00 ft Total Volume: 34.396 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

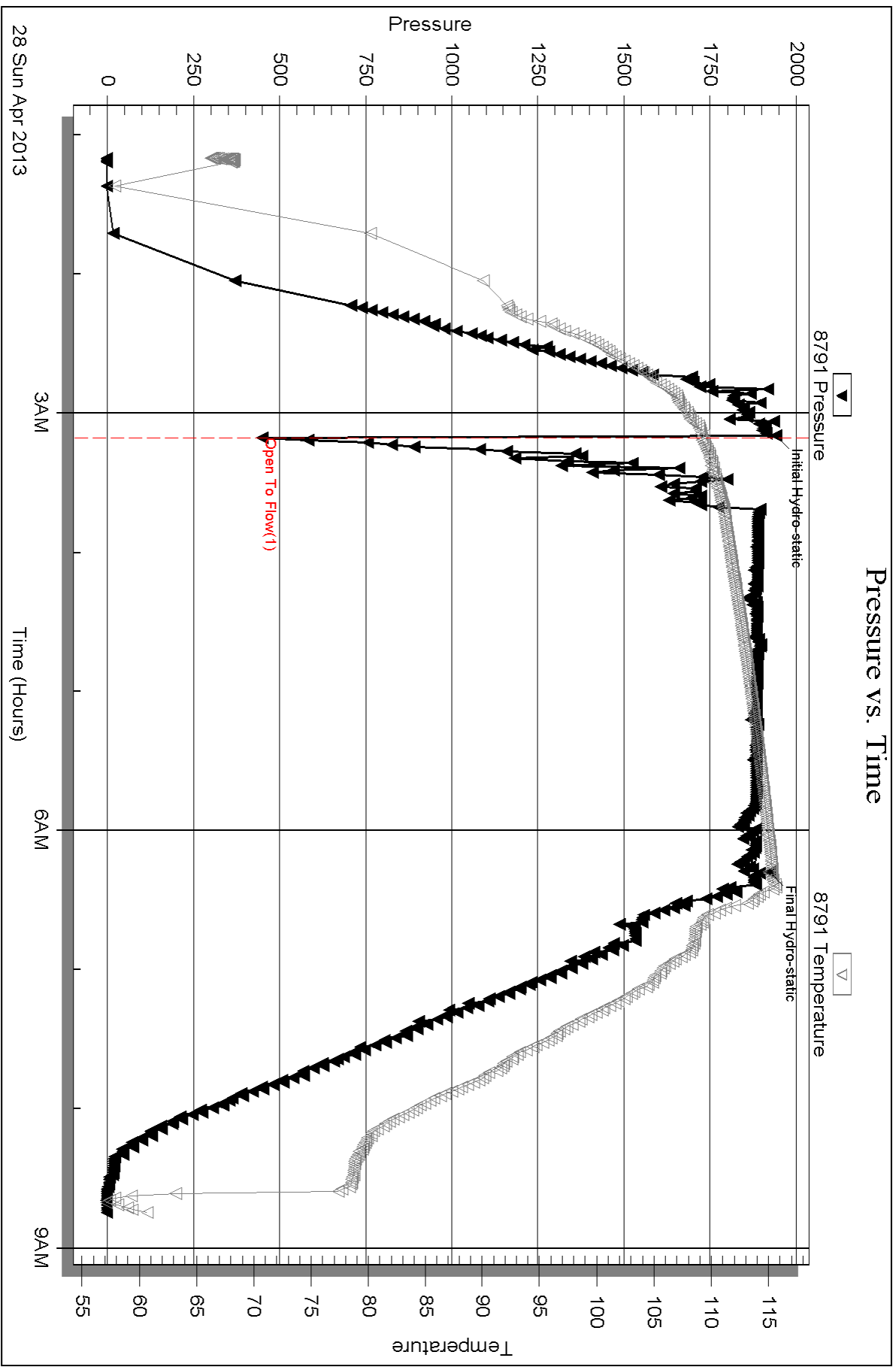
Serial #: 8791

Inside

Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 50663

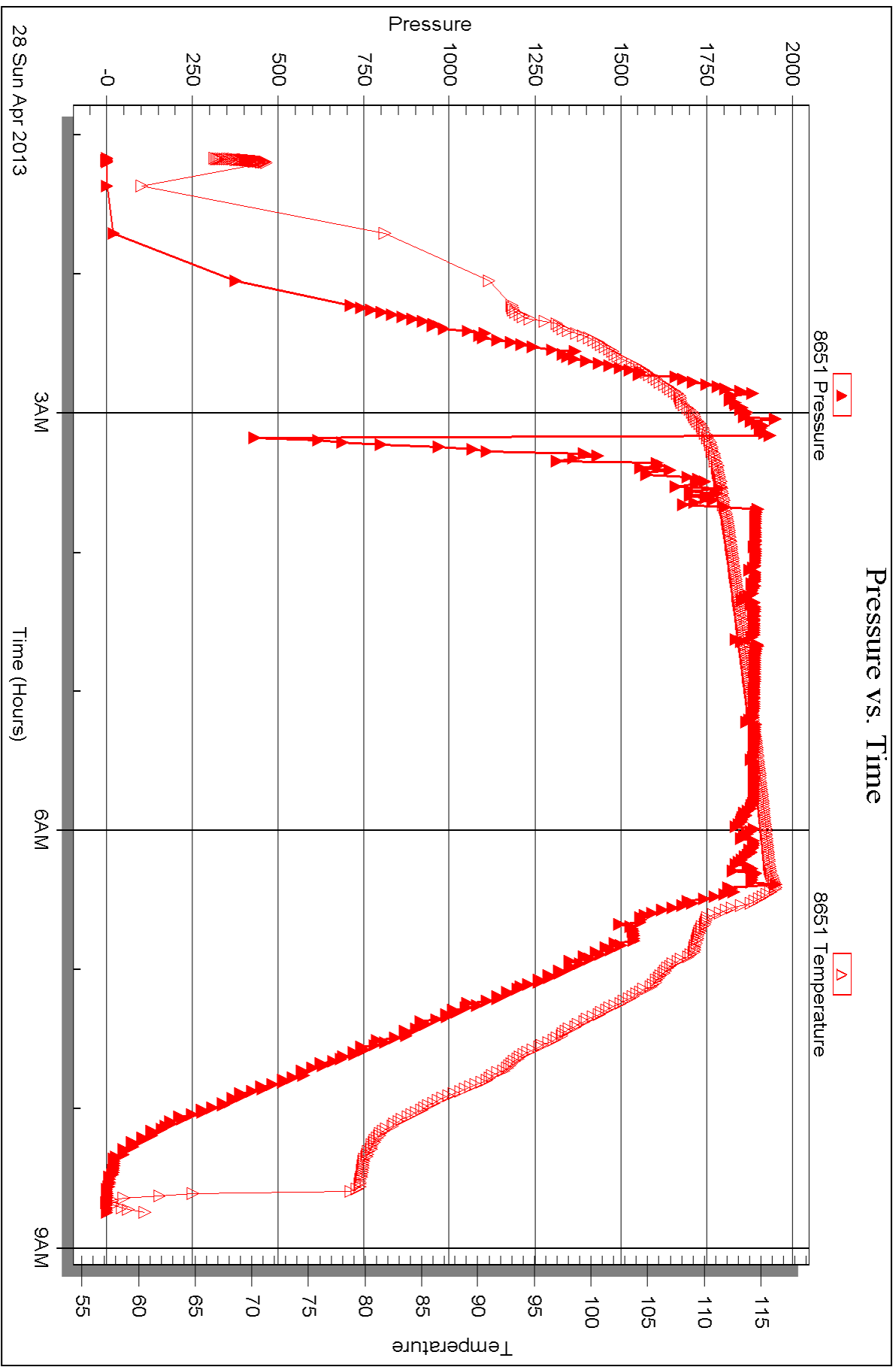
Printed: 2013.05.03 @ 09:58:13

Serial #: 8651

Outside Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE. 300
Wichita KS 67202

ATTN: Robert Hendrix

Sacred Heart #1-36

36 5 33 Rawlins,KS

Start Date: 2013.04.28 @ 13:00:00

End Date: 2013.04.28 @ 18:37:30

Job Ticket #: 50664 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.05.03 @ 09:56:34

Murfin Drilling Co.
36 5 33 Rawlins,KS
Sacred Heart #1-36
DST # 2
Toronto-LKC A
2013.04.28



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50664

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.04.28 @ 13:00:00

Tool Information

Drill Pipe:	Length: 3769.00 ft	Diameter: 3.80 inches	Volume: 52.87 bbl	Tool Weight:	2400.00 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: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose:	84000.00 lb
			<u>Total Volume: 54.02 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4000.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	94.00 ft				
Tool Length:	117.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Hydraulic tool	5.00			3982.00	
Jars	5.00			3987.00	
Safety Joint	3.00			3990.00	
Packer	5.00			3995.00	23.00 Bottom Of Top Packer
Packer	5.00			4000.00	
Stubb	1.00			4001.00	
Recorder	0.00	8791	Inside	4001.00	
Recorder	0.00	8651	Outside	4001.00	
Perforations	25.00			4026.00	
change Over Sub	1.00			4027.00	
Drill Pipe	63.00			4090.00	
Change Over Sub	1.00			4091.00	
Bullnose	3.00			4094.00	94.00 Bottom Packers & Anchor

Total Tool Length: 117.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50664

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.04.28 @ 13:00:00

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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 4.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1612.00	mud-100%	20.480

Total Length: 1612.00 ft Total Volume: 20.480 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8791

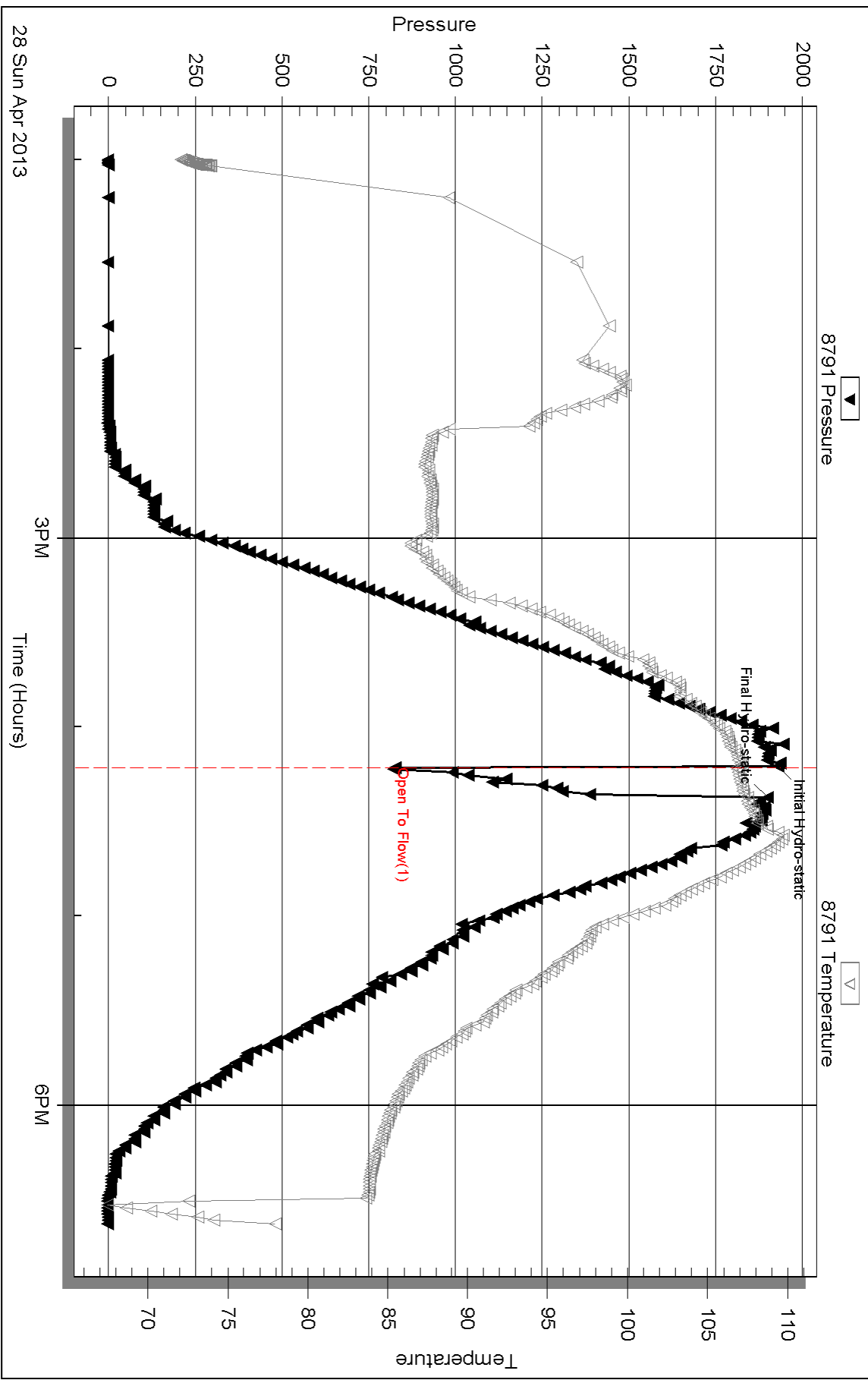
Inside

Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 2

Pressure vs. Time

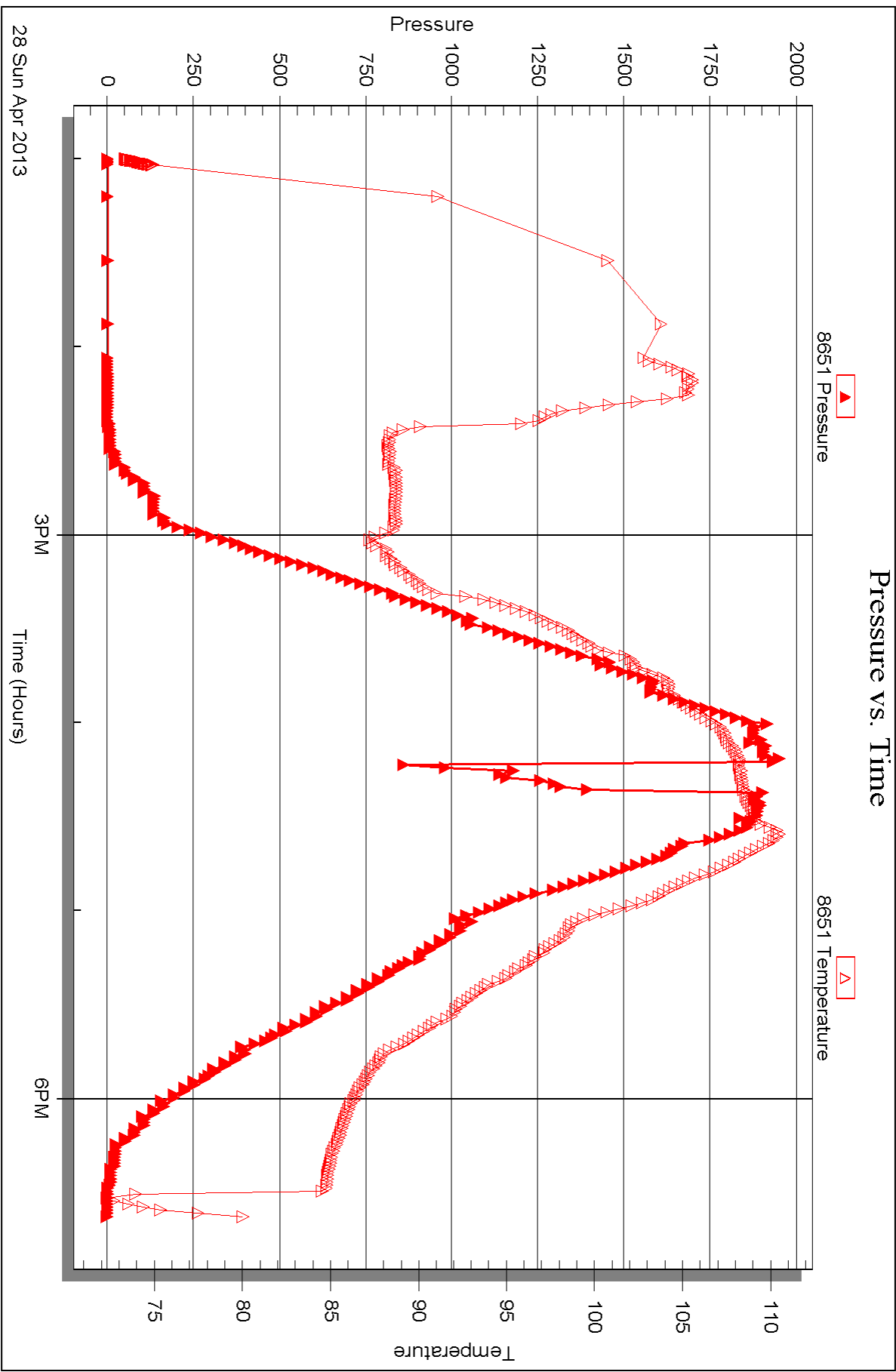


Serial #: 8651

Outside Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE. 300
Wichita KS 67202

ATTN: Robert Hendrix

Sacred Heart #1-36

36 5 33 Rawlins,KS

Start Date: 2013.04.29 @ 19:00:00

End Date: 2013.04.30 @ 02:56:25

Job Ticket #: 50665 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.05.03 @ 09:55:35



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50665

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.04.29 @ 19:00:00

Tool Information

Drill Pipe:	Length: 3948.00 ft	Diameter: 3.80 inches	Volume: 55.38 bbl	Tool Weight: 2400.00 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: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 56.53 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4192.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	98.00 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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Shut In Tool	5.00			4169.00	
Hydraulic tool	5.00			4174.00	
Jars	5.00			4179.00	
Safety Joint	3.00			4182.00	
Packer	5.00			4187.00	28.00 Bottom Of Top Packer
Packer	5.00			4192.00	
Stubb	1.00			4193.00	
Recorder	0.00	8791	Inside	4193.00	
Recorder	0.00	8651	Outside	4193.00	
Perforations	3.00			4196.00	
change Over Sub	1.00			4197.00	
Drill Pipe	61.00			4258.00	
Change Over Sub	1.00			4259.00	
Bullnose	3.00			4262.00	70.00 Bottom Packers & Anchor

Total Tool Length: 98.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50665

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.04.29 @ 19:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.49 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	gmco-5%g25%o70%m	0.305
62.00	gocm-10%g40%m50%o	0.305
62.00	go-10%g90%o	0.305

Total Length: 186.00 ft Total Volume: 0.915 bbl

Num Fluid Samples: 0

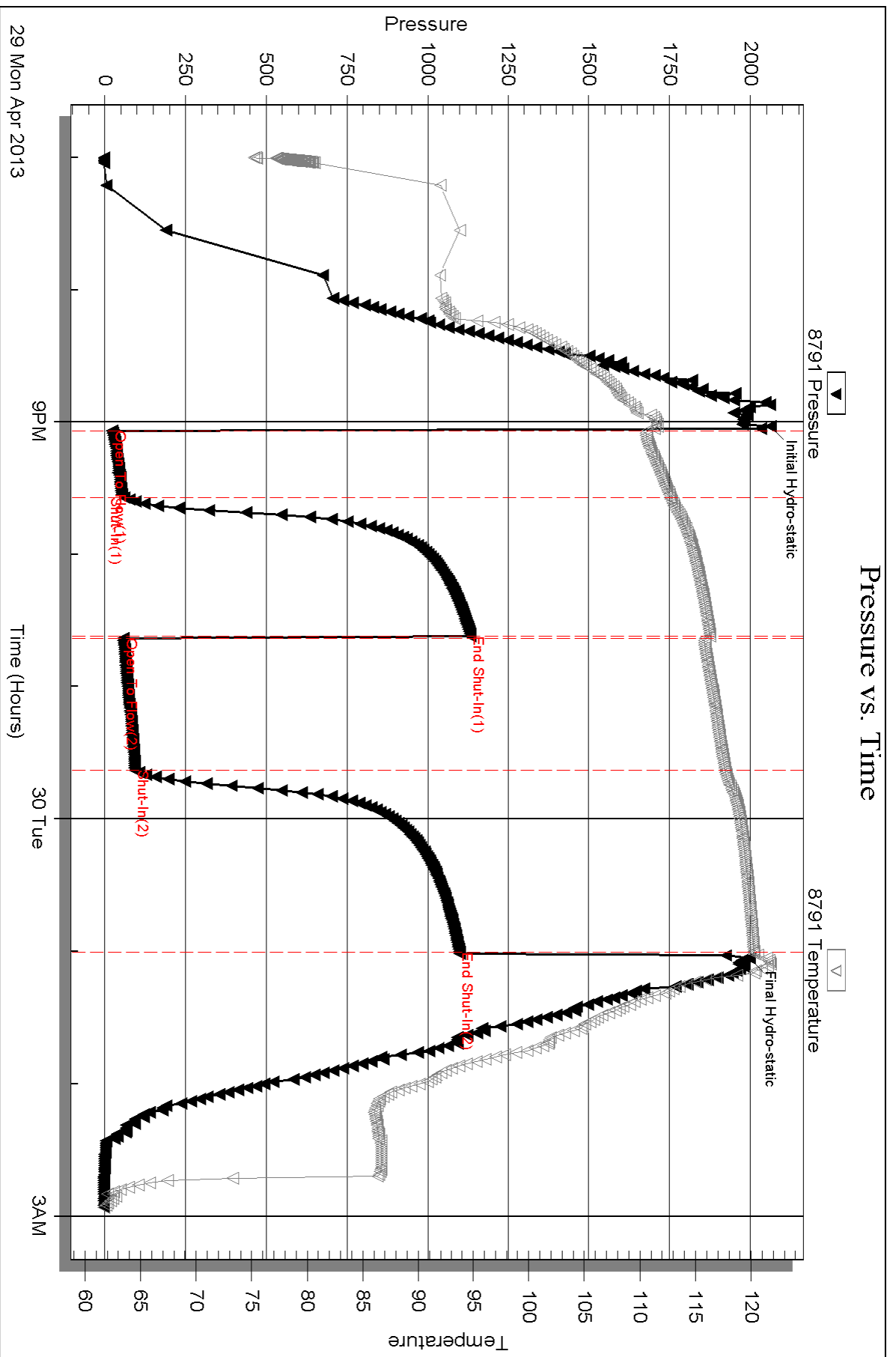
Num Gas Bombs: 0

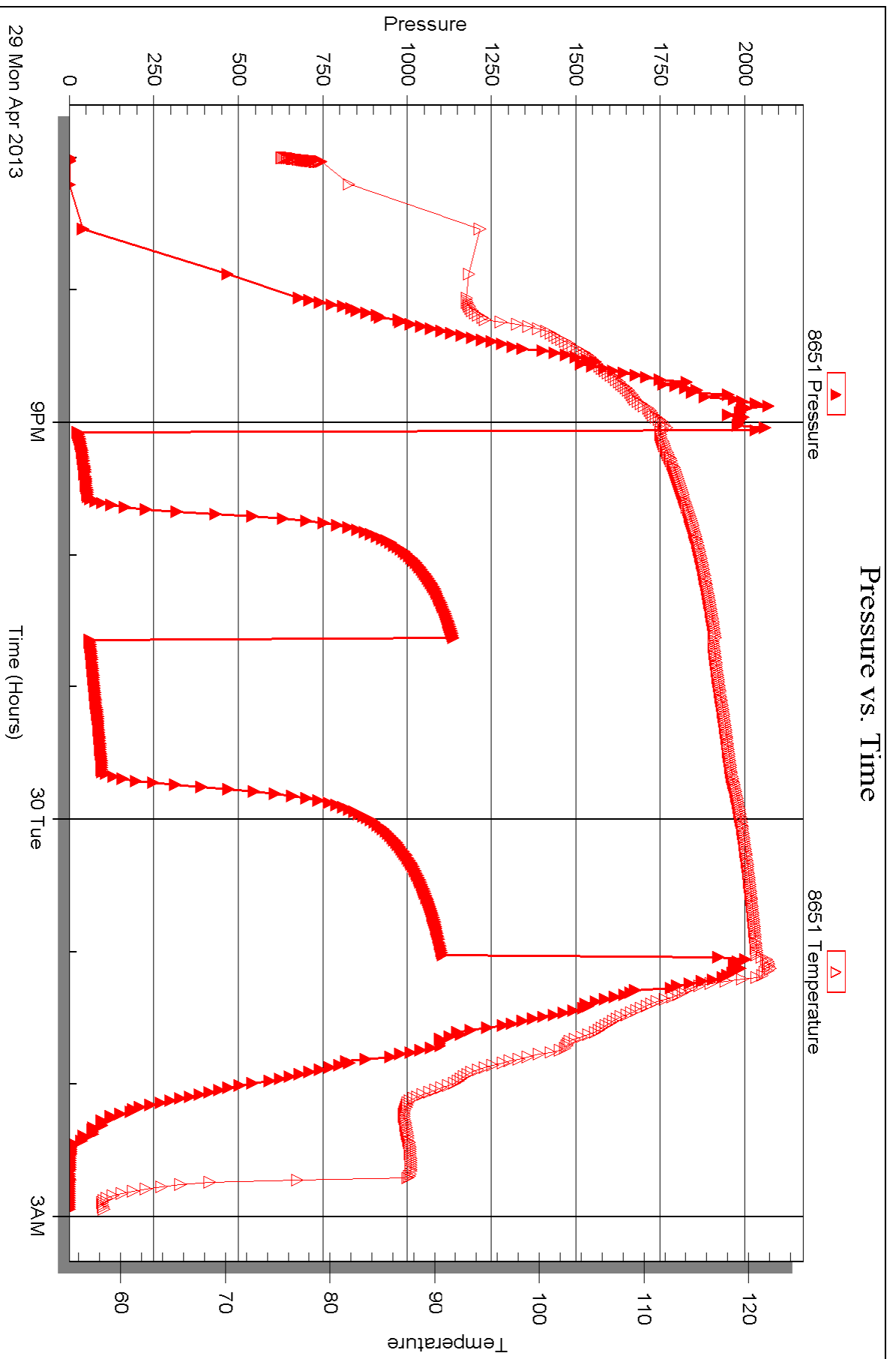
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 33@80=31 gravity







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE. 300
Wichita KS 67202

ATTN: Robert Hendrix

Sacred Heart #1-36

36 5 33 Rawlins,KS

Start Date: 2013.05.01 @ 15:00:00

End Date: 2013.05.01 @ 21:51:30

Job Ticket #: 50666 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.05.03 @ 09:54:49



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water STE. 300
Wichita KS 67202
ATTN: Robert Hendrix

36 5 33 Rawlins,KS
Sacred Heart #1-36
Job Ticket: 50666 **DST#: 4**
Test Start: 2013.05.01 @ 15:00:00

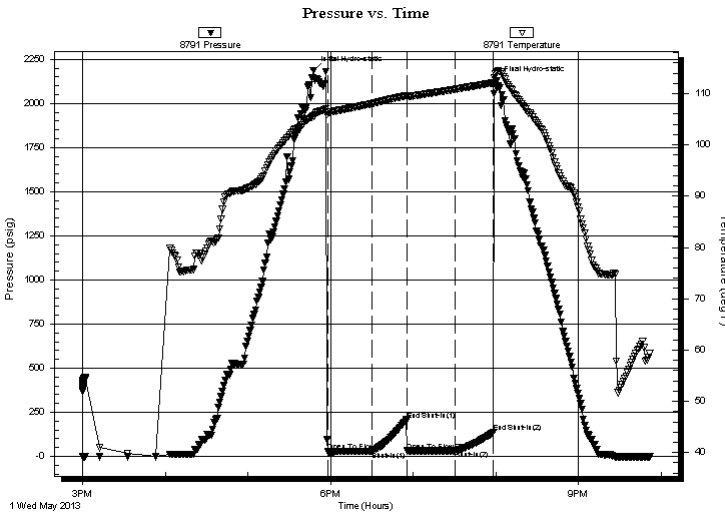
GENERAL INFORMATION:

Formation: **Cherokee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:58:00
Time Test Ended: 21:51:30
Interval: **4385.00 ft (KB) To 4522.00 ft (KB) (TVD)**
Total Depth: 4522.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Charles Kreutzer Jr.
Unit No: 61
Reference Elevations: 3154.00 ft (KB)
3142.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8791 Inside
Press @ Run Depth: 32.87 psig @ 4386.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.05.01 End Date: 2013.05.01 Last Calib.: 2013.05.01
Start Time: 15:00:01 End Time: 21:51:30 Time On Btm: 2013.05.01 @ 17:47:30
Time Off Btm: 2013.05.01 @ 20:01:00

TEST COMMENT: IF: Weak surface blow, Died in 15 mins.
IS: No blow back over 30 mins.
FF: No blow over 30 mins.
FS: No blow back over 30 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2186.94	105.59	Initial Hydro-static
11	26.68	106.42	Open To Flow (1)
43	30.33	108.05	Shut-In(1)
68	207.51	109.61	End Shut-In(1)
68	31.37	109.53	Open To Flow (2)
103	32.87	110.80	Shut-In(2)
131	135.85	112.09	End Shut-In(2)
134	2129.55	114.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud-100%m	0.10

* 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.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50666

DST#: 4

ATTN: Robert Hendrix

Test Start: 2013.05.01 @ 15:00:00

Tool Information

Drill Pipe:	Length: 4138.00 ft	Diameter: 3.80 inches	Volume: 58.05 bbl	Tool Weight: 2400.00 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: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose: 75000.00 lb
			Total Volume: 59.20 bbl	Tool Chased 2.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4385.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	137.00 ft			
Tool Length:	160.00 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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Hydraulic tool	5.00			4367.00	
Jars	5.00			4372.00	
Safety Joint	3.00			4375.00	
Packer	5.00			4380.00	23.00 Bottom Of Top Packer
Packer	5.00			4385.00	
Stubb	1.00			4386.00	
Recorder	0.00	8791	Inside	4386.00	
Recorder	0.00	8651	Outside	4386.00	
Perforations	5.00			4391.00	
change Over Sub	1.00			4392.00	
Drill Pipe	126.00			4518.00	
Change Over Sub	1.00			4519.00	
Bullnose	3.00			4522.00	137.00 Bottom Packers & Anchor

Total Tool Length: 160.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50666

DST#: 4

ATTN: Robert Hendrix

Test Start: 2013.05.01 @ 15:00:00

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: 75.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	mud-100%m	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

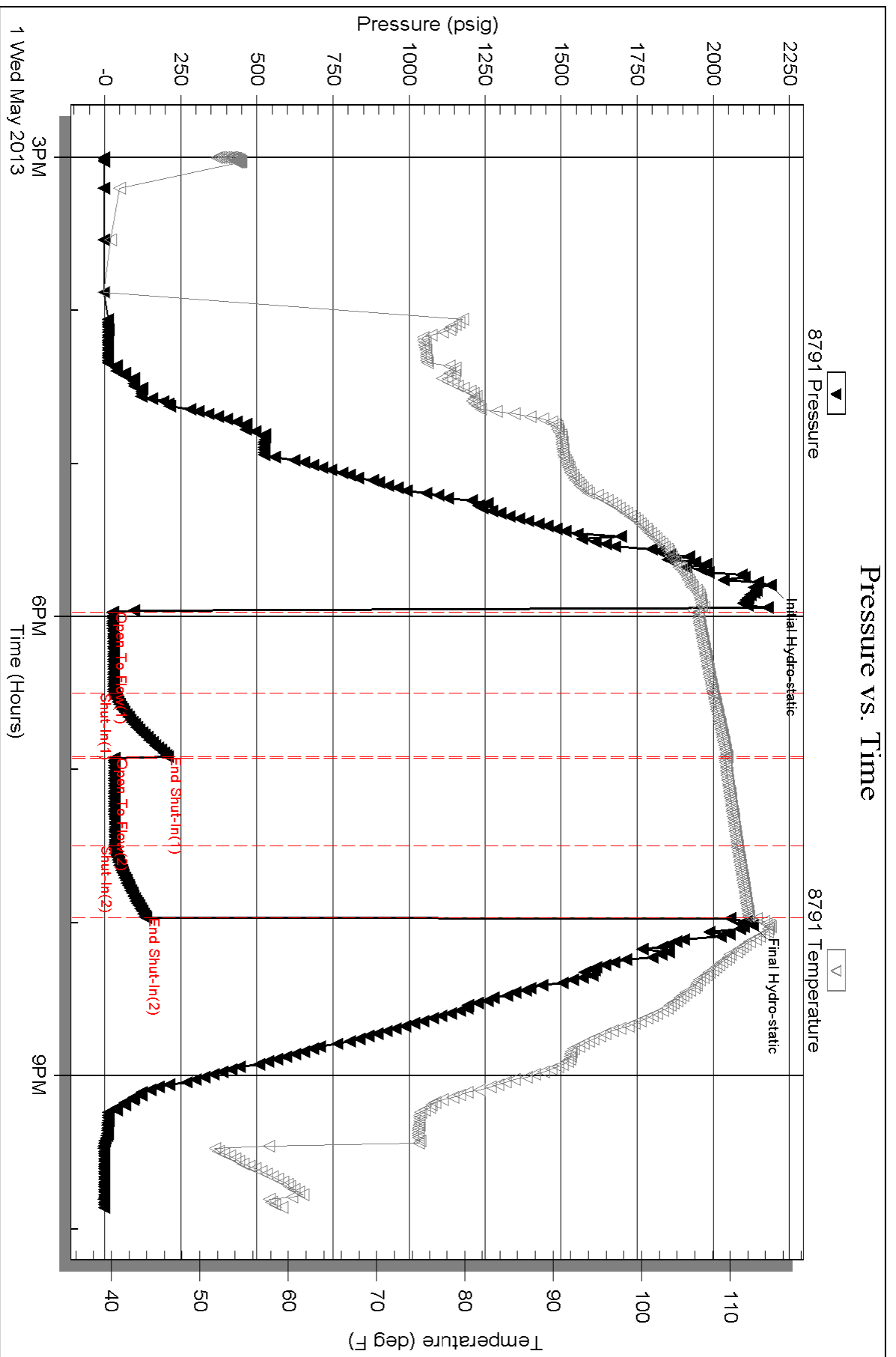
Serial #: 8791

Inside

Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 4

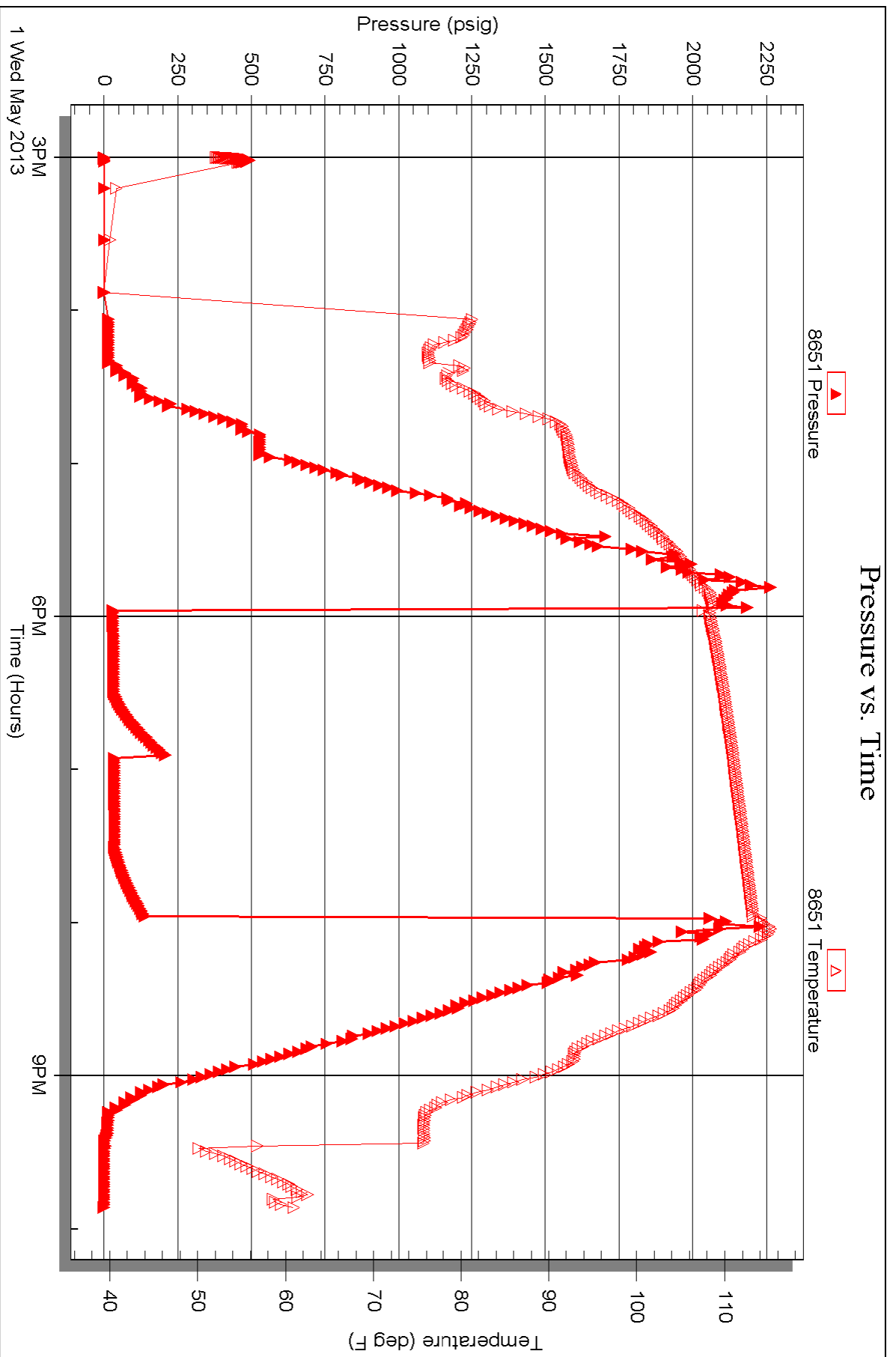


Serial #: 8651

Outside Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50663

Well Name & No. Sacred Heart # 1-36 Test No. 1 Date 4-27-2013
 Company Murfin Drilling Co. Elevation 3154 KB 3192 GL
 Address 250 N. Water Ste. 300 Wichita Ks 67202
 Co. Rep / Geo. Robert Hendrix Rig MURFIN #2
 Location: Sec. 36 Twp. 5 Rge. 33 Co. RAWLINS State _____

Interval Tested 4006 4094 Zone Tested Top - LKC-B
 Anchor Length _____ 8888 Drill Pipe Run 3761 Mud Wt. 88
 Top Packer Depth _____ Drill Collars Run 234 Vis 69
 Bottom Packer Depth _____ Wt. Pipe Run -0- WL 4.8
 Total Depth _____ 4094 Chlorides 2500 ppm System LCM 8#

Blow Description IF: strong blow, Built to B.O.B in 45 secs.
ISI: Bleed off, No blow back over 60 mins.
FF: strong blow, Built to B.O.B in 2 mins. Died back to 7 in. over 30 mins.
FSI: Bleed off, No blow back over 60 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>2604</u>	<u>mud</u>				<u>100</u>
_____	_____				
_____	_____				
_____	_____				
_____	_____				

Rec Total 2604 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic _____ Test 1050 T-On Location 4-27 23:40
 (B) First Initial Flow _____ Jars 250 T-Started 4-28 1:10
 (C) First Final Flow _____ Safety Joint 75 T-Open _____ 3:10
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled _____ 6:15
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out _____ 8:44
 (F) Second Final Flow _____ Mileage 50 x 2 = 100 x 1.55 = 155 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic _____ Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open _____ 30 Extra Recorder _____ Sub Total _____ 0
 Initial Shut-In _____ 60 Day Standby _____ Total _____ 1530
 Final Flow _____ 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In _____ 60 Sub Total _____ 1530

Approved By _____ Our Representative Chad Key
 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. 50664

Well Name & No. Sacred Heart #1-36 Test No. 2 Date 4-28-2013
 Company Murfin Drilling Co. Elevation 3154 KB 3142 GL
 Address 250 N. Water Ste. 300 Wichita Ks. 67207
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 36 Twp. 5 Rge. 33 Co. Rawlins State KS

Interval Tested 4000 4094 Zone Tested Top - L.K.C.B
 Anchor Length 94 Drill Pipe Run 3769 Mud Wt. 8.8
 Top Packer Depth 3995 Drill Collars Run 234 Vis 69
 Bottom Packer Depth 4600 Wt. Pipe Run 0 WL 4.8
 Total Depth 4094 Chlorides 2500 ppm System LCM 8#

Blow Description Set tool mud held for 5 mins. Had Bottom Bucket in 1 min. After 5 mins mud started to drop slowly, Refilled Hole. Mud started falling faster pulled tool.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1612</u>	<u>mud</u>				<u>100</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 1612 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1929 Test 1050 T-On Location 4-27 23:46
 (B) First Initial Flow 826 Jars 250 T-Started 4-28 13:00
 (C) First Final Flow _____ Safety Joint 75 T-Open _____ 16:13
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled _____ 15:25
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out _____ 18:37
 (F) Second Final Flow _____ Mileage 0 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 1980 Straddle _____ Ruined Shale Packer _____

Initial Open 15 Shale Packer _____ Ruined Packer _____
 Initial Shut-In _____ Extra Packer _____ Extra Copies _____
 Final Flow _____ Extra Recorder _____ Sub Total 0
 Final Shut-In _____ Day Standby _____ Total 1375
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1375

Approved By _____ Our Representative Chris [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. 50665

Well Name & No. Sacred Heart #1-36 Test No. 3 Date 4-30-2013
 Company Murfin Drilling Co. Elevation 3154 KB 3142 GL
 Address 250 N. Water Ste. 300 Wichita KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 36 Twp. 5 Rge. 33 Co. Rawlins State Ks

Interval Tested 4192 4262 Zone Tested LRC-J, K
 Anchor Length 70 Drill Pipe Run 3958 Mud Wt. 8.9
 Top Packer Depth 4187 Drill Collars Run 234 Vis 50
 Bottom Packer Depth 4192 Wt. Pipe Run -0- WL 6.5
 Total Depth 4262 Chlorides 3,000 ppm System LCM 10#

Blow Description IF: Weak blow, Built to 2 in over 30 mins.

ISI: No blow back over 80 mins.

FF: Weak blow, Built to 3 in. over 20 mins. started to die in 30 mins, Dead in 60 mins

FSD: No blow back in 90 mins.

Rec	Feet of	%gas	%oil	%water	%mud
62	90	10%	90%		
62	90cm	10%	50%		40%
62	9mcd	5%	25%		70%
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud

Rec Total 186 BHT 117 Gravity 31 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 2061 Test 1250 T-On Location 19:00
 (B) First Initial Flow 23 Jars 250 T-Started 19:00
 (C) First Final Flow 61 Safety Joint 75 T-Open 21:30
 (D) Initial Shut-In 1134 Circ Sub T-Pulled 4:30 1:05
 (E) Second Initial Flow 58 Hourly Standby T-Out 2:58
 (F) Second Final Flow 94 Mileage 50X2 = 100X 1.55 155
 (G) Final Shut-In 1099 Sampler
 (H) Final Hydrostatic 1996 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 1730
 Total 1730
 MP/DST Disc't

Approved By _____ Our Representative Chris Hufsch

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50666

Well Name & No. Sacred Heart #1-36 Test No. 4 Date 5-1-2013
 Company Murfin Drilling Co. Elevation 3154 KB 3142 GL
 Address 250 N. Water Ste. 300 Wichita Ks. 67207
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 36 Twp. 5 Rge. 33 Co. Rawlins State KS

Interval Tested 4385 4522 Zone Tested Cherokee
 Anchor Length 137 Drill Pipe Run 4138 Mud Wt. 9.1
 Top Packer Depth 4380 Drill Collars Run 234 Vis 75
 Bottom Packer Depth 4385 Wt. Pipe Run - 0- WL 6.6
 Total Depth 4522 Chlorides 3,000 ppm System LCM 80#

Blow Description IF: Weak surface blow, Died in 15 mins.

ISI: No blow back

FF: No blow

FSI: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>mud</u>				<u>100</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 20 BHT 116 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic	<u>2187</u>
(B) First Initial Flow	<u>27</u>
(C) First Final Flow	<u>30</u>
(D) Initial Shut-In	<u>208</u>
(E) Second Initial Flow	<u>31</u>
(F) Second Final Flow	<u>33</u>
(G) Final Shut-In	<u>136</u>
(H) Final Hydrostatic	<u>2130</u>

- Test 1250
 - Jars 250
 - Safety Joint 75
 - Circ Sub
 - Hourly Standby
 - Mileage 155
 - Sampler
 - Straddle
 - Shale Packer
 - Extra Packer
 - Extra Recorder
 - Day Standby 1 day 1d 11.25h
 - Accessibility
- Sub Total 1730

T-On Location	<u>14:15</u>
T-Started	<u>15:00</u>
T-Open	<u>17:58</u>
T-Pulled	<u>19:55</u>
T-Out	<u>21:51</u>
Comments	
<input type="checkbox"/> Ruined Shale Packer	
<input type="checkbox"/> Ruined Packer	
<input type="checkbox"/> Extra Copies	
Sub Total	<u>375</u>
Total	<u>2105</u>
MP/DST Disc't	

Approved By _____

Our Representative Chad Hendrix

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