



DRILL STEM TEST REPORT

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

250 N Water Ste300
Wichita KS 67202

ATTN: Charles Schmaltz

Keith #1-33

33-9s-27w Sheridan,KS

Start Date: 2014.03.26 @ 06:30:00

End Date: 2014.03.26 @ 15:57:15

Job Ticket #: 54104 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.01 @ 16:49:48

Murfin Drilling Co Inc. 33-9s-27w Sheridan,KS Keith #1-33 DST # 1 KC "B-D" 2014.03.26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc.

33-9s-27w Sheridan,KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54104

DST#: 1

ATTN: Charles Schmaltz

Test Start: 2014.03.26 @ 06:30:00

GENERAL INFORMATION:

Formation: **KC "B-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:02:00

Time Test Ended: 15:57:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: 3882.00 ft (KB) To 3922.00 ft (KB) (TVD)

Reference Elevations: 2702.00 ft (KB)

Total Depth: 3922.00 ft (KB) (TVD)

2697.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 8934

Inside

Press@RunDepth: 45.94 psig @ 3886.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.26

End Date:

2014.03.26

Last Calib.:

2014.03.26

Start Time: 06:30:05

End Time:

15:57:15

Time On Btm:

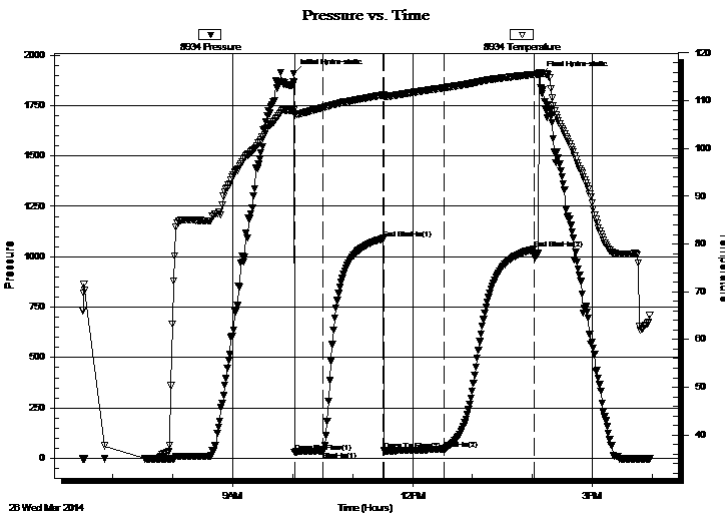
2014.03.26 @ 10:01:15

Time Off Btm:

2014.03.26 @ 14:07:15

TEST COMMENT: IF-1 1/4" blow died back to 1"
IS-No blow
FF-Very weak surface blow
FS-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1907.68	108.07	Initial Hydro-static
1	29.83	107.22	Open To Flow (1)
30	37.12	108.61	Shut-In(1)
90	1090.87	111.21	End Shut-In(1)
91	38.64	110.83	Open To Flow (2)
151	45.94	112.70	Shut-In(2)
240	1037.24	115.49	End Shut-In(2)
246	1897.65	115.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
55.00	VSOCM 5%O 95%M	0.27
8.00	Free Oil	0.04

Gas Rates

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



DRILL STEM TEST REPORT

Murfin Drilling Co Inc.

33-9s-27w Sheridan, KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54104

DST#: 1

ATTN: Charles Schmaltz

Test Start: 2014.03.26 @ 06:30:00

GENERAL INFORMATION:

Formation: **KC "B-D"**

Deviated: No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Time Tool Opened: 10:02:00

Tester: Brett Dickinson

Time Test Ended: 15:57:15

Unit No: 59

Interval: 3882.00 ft (KB) To 3922.00 ft (KB) (TVD)

Reference Elevations: 2702.00 ft (KB)

Total Depth: 3922.00 ft (KB) (TVD)

2697.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 8736 Outside

Press@RunDepth: psig @ 3886.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.26

End Date:

2014.03.26

Last Calib.:

2014.03.26

Start Time: 06:30:05

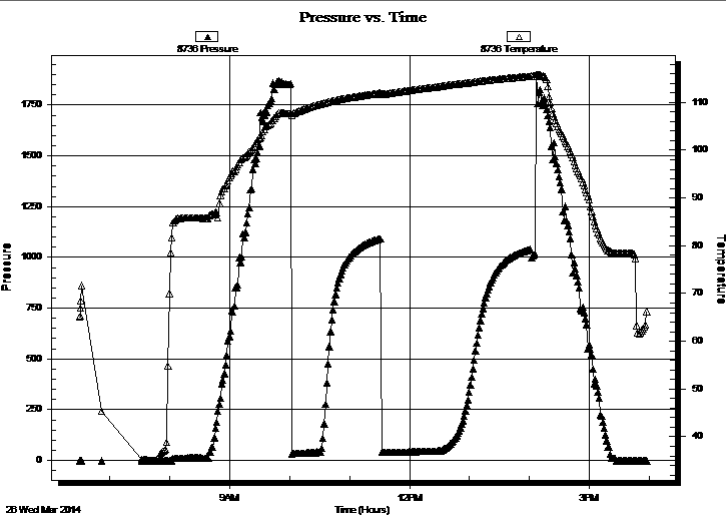
End Time:

15:57:15

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-1 1/4" blow died back to 1"
ISI-No blow
FF-Very weak surface blow
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
55.00	VSOCM 5%O 95%M	0.27
8.00	Free Oil	0.04

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc.

33-9s-27w Sheridan,KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54104

DST#: 1

ATTN: Charles Schmaltz

Test Start: 2014.03.26 @ 06:30:00

Tool Information

Drill Pipe:	Length: 3742.00 ft	Diameter: 3.80 inches	Volume: 52.49 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	5.00 ft
				String Weight: Initial	55000.00 lb
Drill Pipe Above KB:	3.00 ft			Final	55000.00 lb
Depth to Top Packer:	3882.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	40.00 ft				
Tool Length:	68.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3859.00	
Hydraulic tool	5.00			3864.00	
Jars	5.00			3869.00	
Safety Joint	3.00			3872.00	
Packer	5.00			3877.00	28.00 Bottom Of Top Packer
Packer	5.00			3882.00	
Stubb	1.00			3883.00	
Perforations	3.00			3886.00	
Recorder	0.00	8934	Inside	3886.00	
Recorder	0.00	8736	Outside	3886.00	
Change Over Sub	1.00			3887.00	
Drill Pipe	31.00			3918.00	
Change Over Sub	1.00			3919.00	
Bullnose	3.00			3922.00	40.00 Bottom Packers & Anchor

Total Tool Length: 68.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc.

33-9s-27w Sheridan,KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54104

DST#: 1

ATTN: Charles Schmaltz

Test Start: 2014.03.26 @ 06:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

22 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
55.00	VSOCM 5%O 95%M	0.270
8.00	Free Oil	0.039

Total Length: 63.00 ft Total Volume: 0.309 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8934

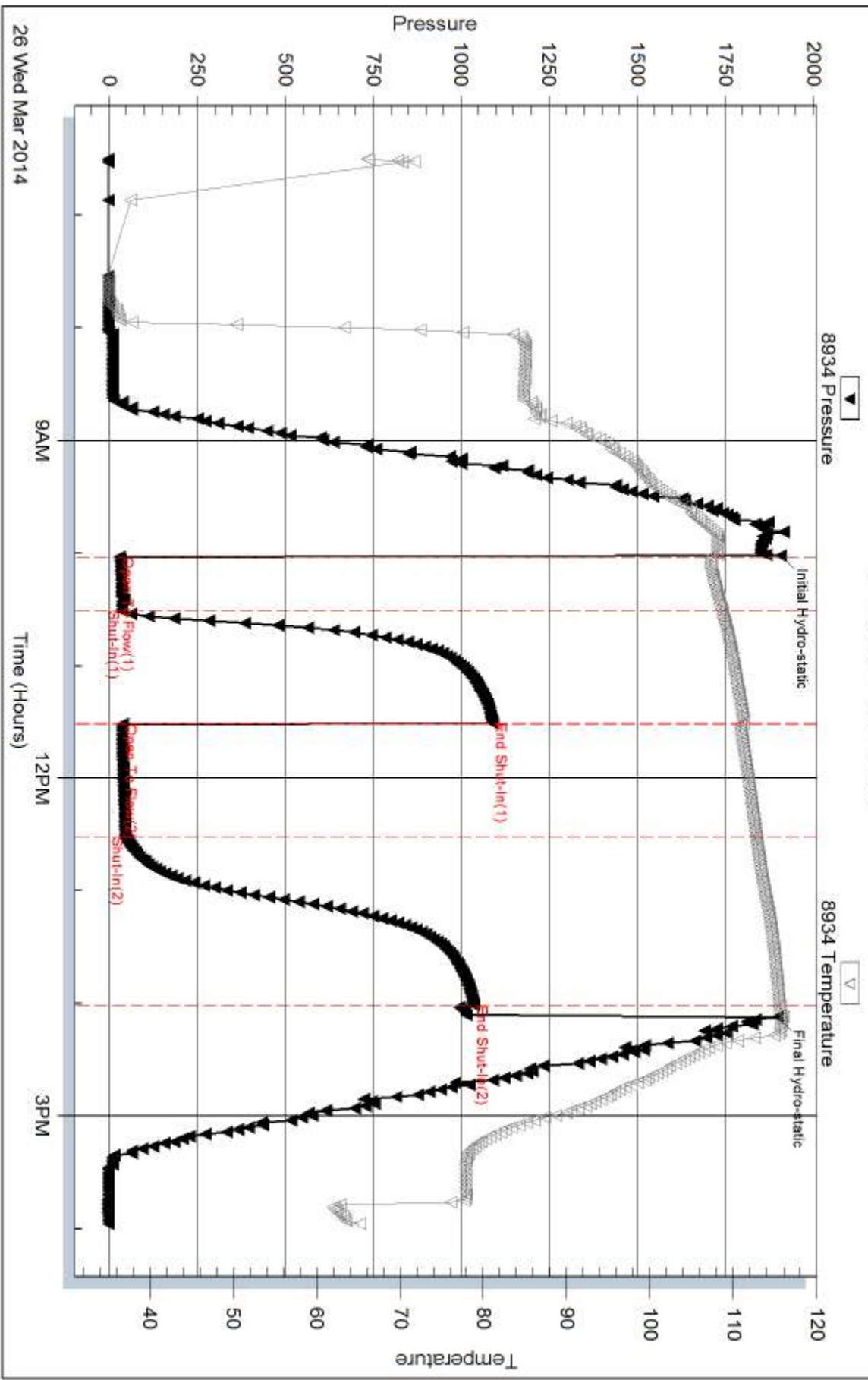
Inside

Murfin Drilling Co Inc.

Keith #1-33

DST Test Number: 1

Pressure vs. Time



Tribble Testing, Inc

Ref. No: 54104

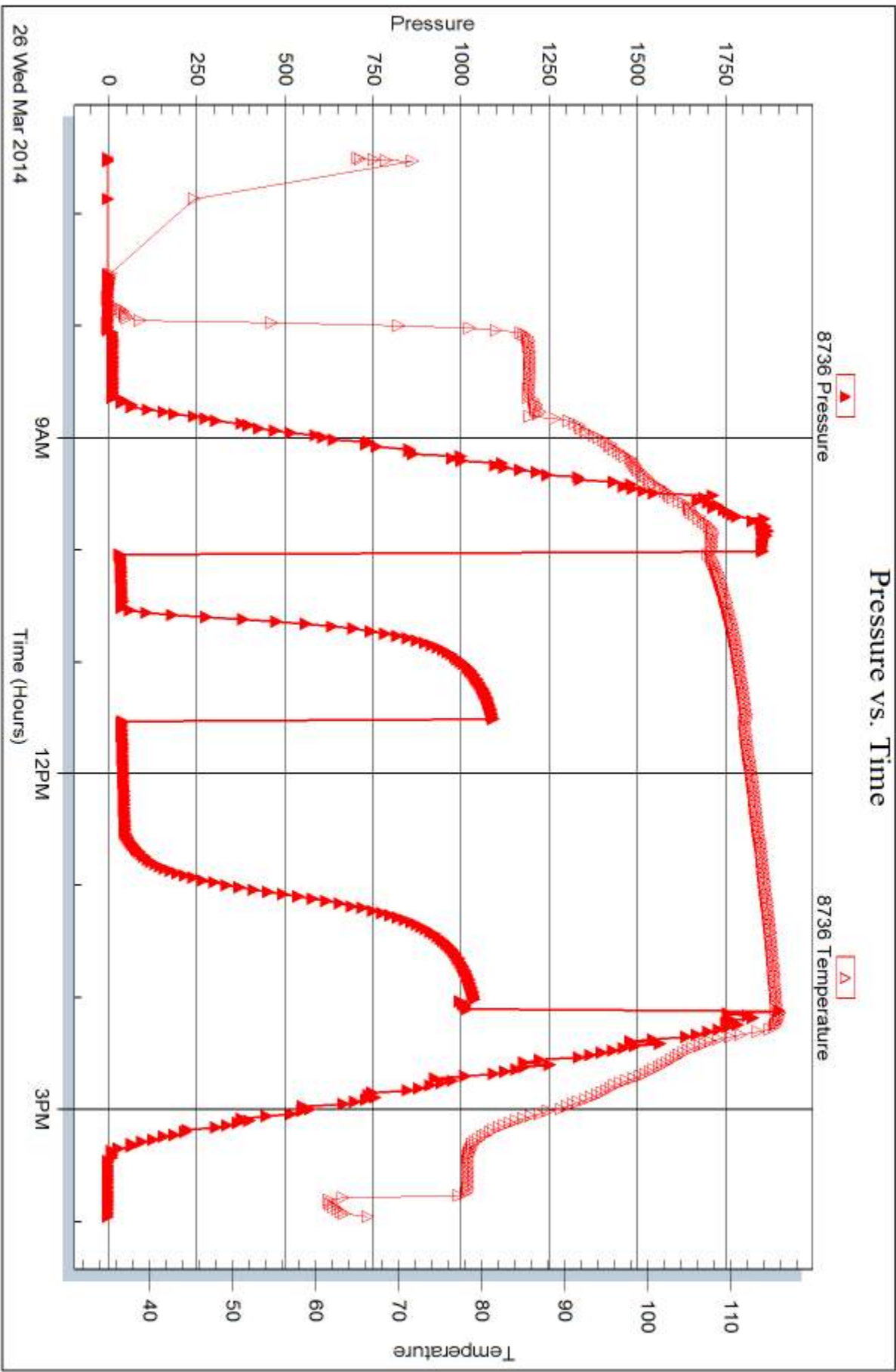
Printed: 2014.04.01 @ 16:49:50

Serial #: 8736

Outside Murfin Drilling Co Inc.

Keith #1-33

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 54104

Printed: 2014.04.01 @ 16:49:50



DRILL STEM TEST REPORT

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

250 N Water Ste300
Wichita KS 67202

ATTN: Charles Schmaltz

Keith #1-33

33-9s-27w Sheridan,KS

Start Date: 2014.03.27 @ 01:25:00

End Date: 2014.03.27 @ 08:44:30

Job Ticket #: 54105 DST #: 2

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

Printed: 2014.04.01 @ 16:49:23

Murfin Drilling Co Inc. 33-9s-27w Sheridan,KS Keith #1-33 DST # 2 KC 2014.03.27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc.

33-9s-27w Sheridan,KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54105

DST#: 2

ATTN: Charles Schmaltz

Test Start: 2014.03.27 @ 01:25:00

GENERAL INFORMATION:

Formation: **KC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:01:45
 Time Test Ended: 08:44:30
 Interval: **3919.00 ft (KB) To 3942.00 ft (KB) (TVD)**
 Total Depth: 3942.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brett Dickinson
 Unit No: 59
 Reference Elevations: 2702.00 ft (KB)
 2697.00 ft (CF)
 KB to GR/CF: 5.00 ft

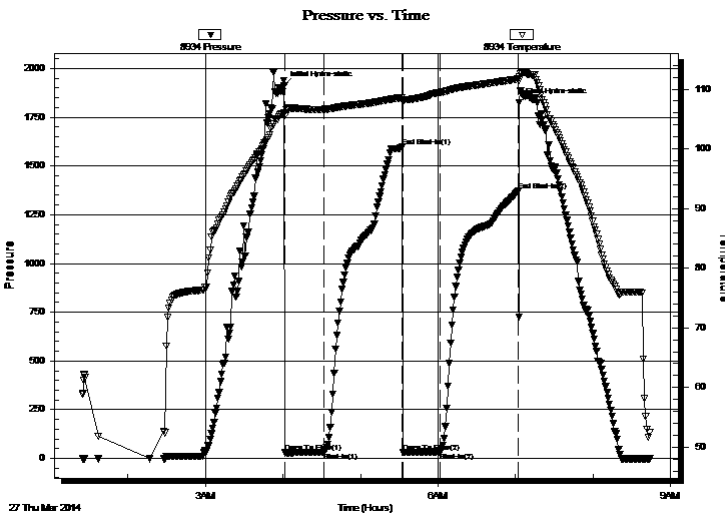
Serial #: 8934

Inside

Press@RunDepth: 33.17 psig @ 3939.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.27 End Date: 2014.03.27 Last Calib.: 2014.03.27
 Start Time: 01:25:05 End Time: 08:44:29 Time On Btm: 2014.03.27 @ 04:01:00
 Time Off Btm: 2014.03.27 @ 07:03:00

TEST COMMENT: IF-1 1/4" blow
 IS-No blow
 FF-No blow
 FS-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1913.80	106.10	Initial Hydro-static
1	28.96	105.57	Open To Flow (1)
31	29.35	106.62	Shut-In(1)
92	1597.46	108.61	End Shut-In(1)
92	31.08	107.83	Open To Flow (2)
121	33.17	109.42	Shut-In(2)
182	1371.71	111.69	End Shut-In(2)
182	1826.08	112.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OS Mud	0.05

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

Murfin Drilling Co Inc.

33-9s-27w Sheridan,KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54105

DST#: 2

ATTN: Charles Schmaltz

Test Start: 2014.03.27 @ 01:25:00

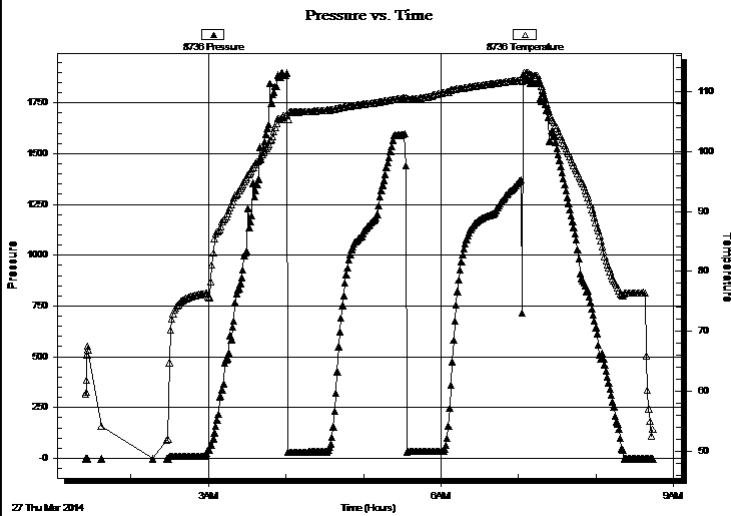
GENERAL INFORMATION:

Formation: **KC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:01:45
 Time Test Ended: 08:44:30
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brett Dickinson
 Unit No: 59
 Interval: **3919.00 ft (KB) To 3942.00 ft (KB) (TVD)**
 Reference Elevations: 2702.00 ft (KB)
 Total Depth: 3942.00 ft (KB) (TVD) 2697.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 5.00 ft

Serial #: 8736 Outside

Press@RunDepth: psig @ 3939.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.27 End Date: 2014.03.27 Last Calib.: 2014.03.27
 Start Time: 01:25:05 End Time: 08:44:29 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF-1 1/4" blow
 IS- No blow
 FF- No blow
 FS- No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OS Mud	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc.

33-9s-27w Sheridan,KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54105

DST#: 2

ATTN: Charles Schmaltz

Test Start: 2014.03.27 @ 01:25:00

Tool Information

Drill Pipe:	Length: 3805.00 ft	Diameter: 3.80 inches	Volume: 53.37 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	5.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3919.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	23.00 ft				
Tool Length:	51.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3896.00	
Hydraulic tool	5.00			3901.00	
Jars	5.00			3906.00	
Safety Joint	3.00			3909.00	
Packer	5.00			3914.00	28.00 Bottom Of Top Packer
Packer	5.00			3919.00	
Stubb	1.00			3920.00	
Perforations	19.00			3939.00	
Recorder	0.00	8934	Inside	3939.00	
Recorder	0.00	8736	Outside	3939.00	
Bullnose	3.00			3942.00	23.00 Bottom Packers & Anchor

Total Tool Length: 51.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc.

33-9s-27w Sheridan,KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54105

DST#: 2

ATTN: Charles Schmaltz

Test Start: 2014.03.27 @ 01:25:00

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OS Mud	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

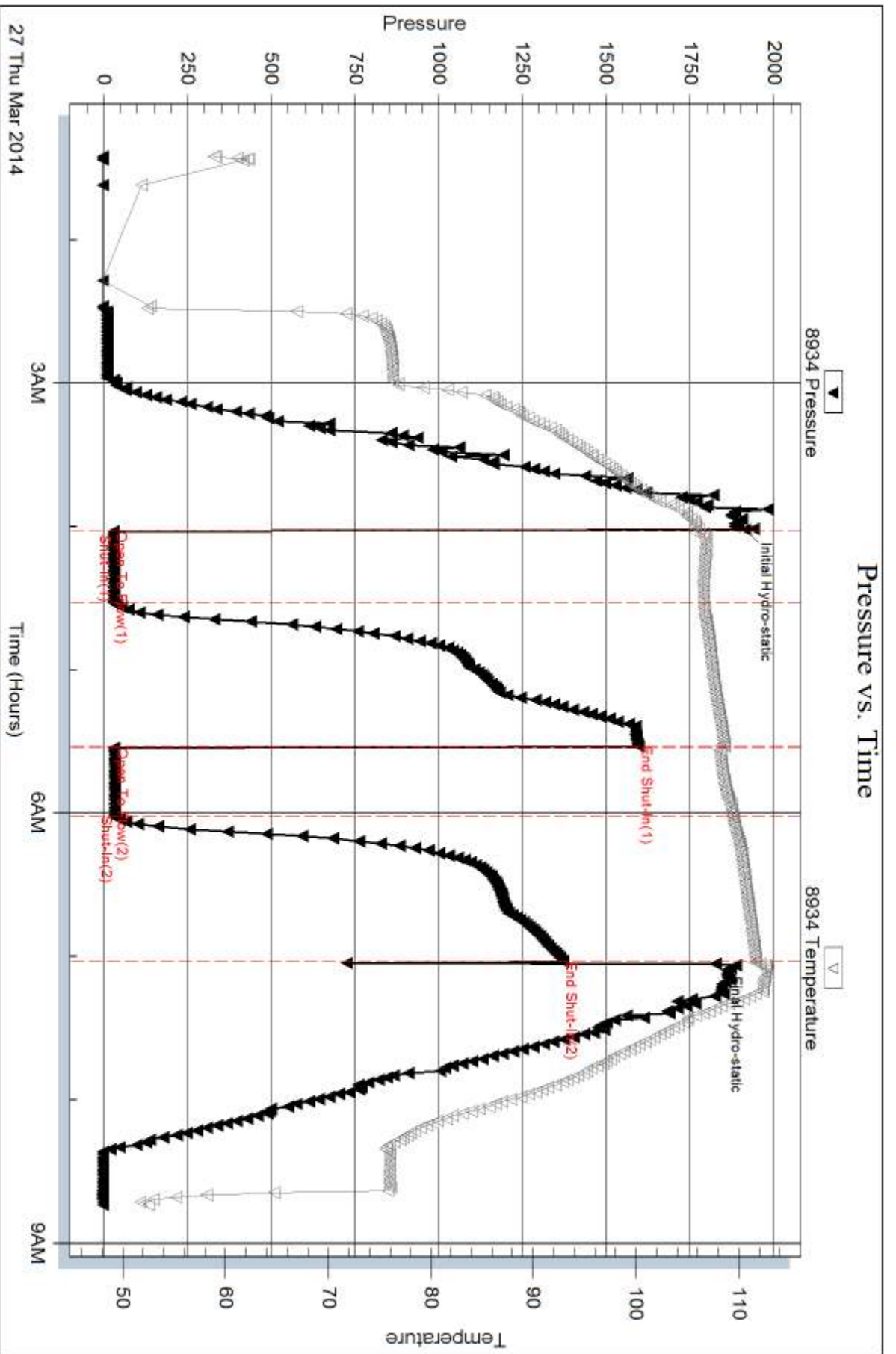
Num Gas Bombs: 0

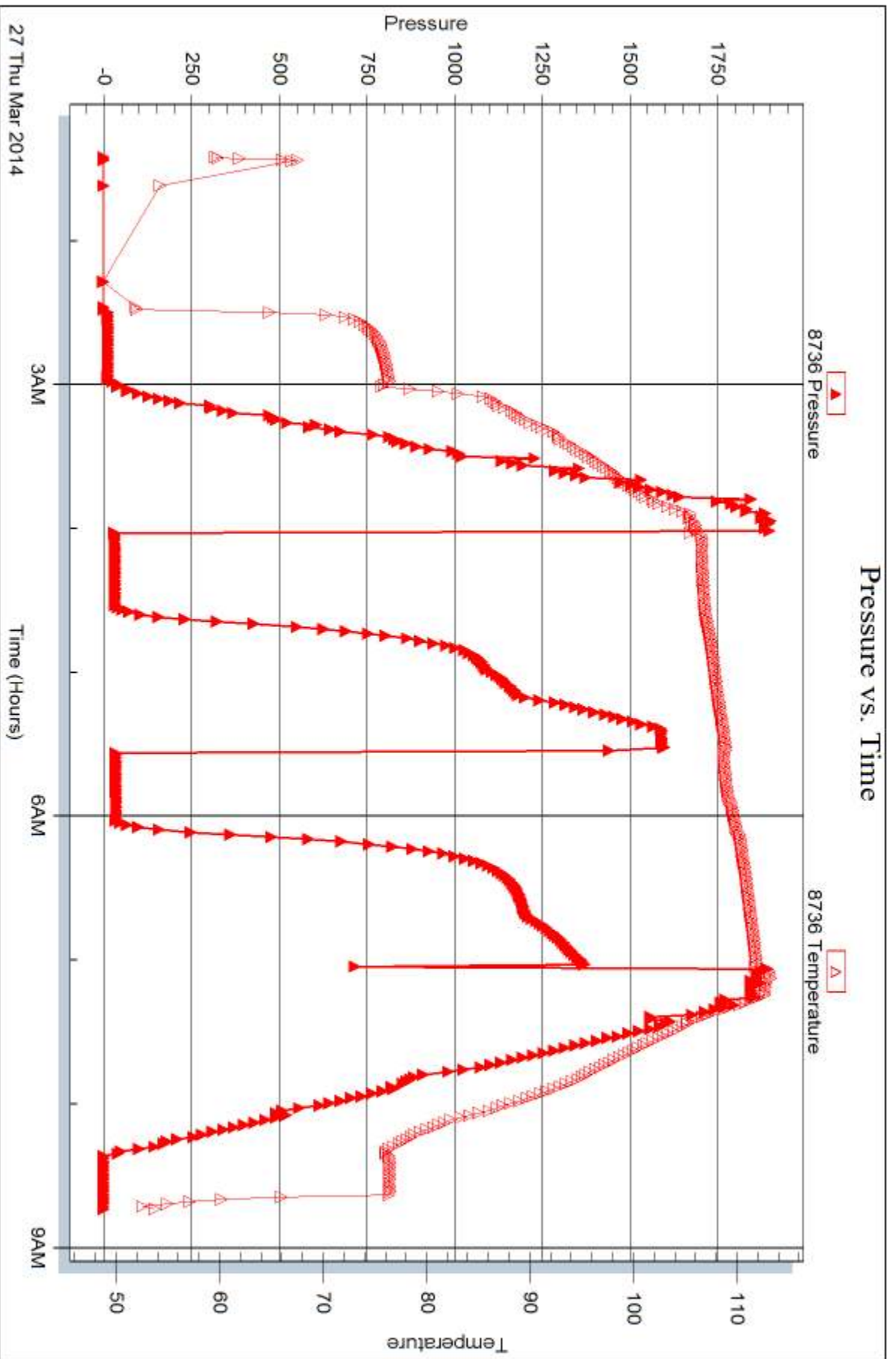
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

250 N Water Ste300
Wichita KS 67202

ATTN: Charles Schmaltz

Keith #1-33

33-9s-27w Sheridan,KS

Start Date: 2014.03.28 @ 01:55:05

End Date: 2014.03.28 @ 11:23:15

Job Ticket #: 54106 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.01 @ 16:48:51



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co Inc.

33-9s-27w Sheridan,KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54106

DST#: 3

ATTN: Charles Schmaltz

Test Start: 2014.03.28 @ 01:55:05

GENERAL INFORMATION:

Formation: **KC"I-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:34:30

Time Test Ended: 11:23:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3999.00 ft (KB) To 4092.00 ft (KB) (TVD)

Reference Elevations: 2702.00 ft (KB)

Total Depth: 4092.00 ft (KB) (TVD)

2697.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 8934

Inside

Press@RunDepth: 96.59 psig @ 4002.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.28

End Date:

2014.03.28

Last Calib.:

2014.03.28

Start Time: 01:55:05

End Time:

11:23:15

Time On Btm:

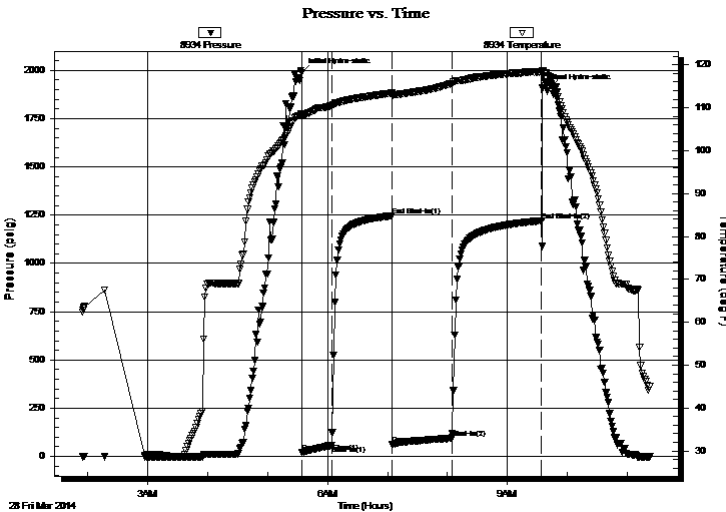
2014.03.28 @ 05:34:00

Time Off Btm:

2014.03.28 @ 09:35:15

TEST COMMENT: IF-3 1/4" blow
IS-No blow
FF-1/2" blow
FS-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1988.74	108.51	Initial Hydro-static
1	19.38	107.82	Open To Flow (1)
31	57.79	110.47	Shut-In(1)
90	1246.13	113.36	End Shut-In(1)
91	63.47	112.94	Open To Flow (2)
151	96.59	115.63	Shut-In(2)
241	1221.65	118.34	End Shut-In(2)
242	1907.90	118.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
115.00	OS WCM 40%W 60%M	0.57
45.00	OS VSWCM 5%W 95%M	0.63

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.

33-9s-27w Sheridan,KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54106

DST#: 3

ATTN: Charles Schmaltz

Test Start: 2014.03.28 @ 01:55:05

Tool Information

Drill Pipe:	Length: 3868.00 ft	Diameter: 3.80 inches	Volume: 54.26 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3999.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	93.00 ft				
Tool Length:	121.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3976.00	
Hydraulic tool	5.00			3981.00	
Jars	5.00			3986.00	
Safety Joint	3.00			3989.00	
Packer	5.00			3994.00	28.00 Bottom Of Top Packer
Packer	5.00			3999.00	
Stubb	1.00			4000.00	
Perforations	2.00			4002.00	
Recorder	0.00	8934	Inside	4002.00	
Recorder	0.00	8736	Outside	4002.00	
Change Over Sub	1.00			4003.00	
Drill Pipe	63.00			4066.00	
Change Over Sub	1.00			4067.00	
Perforations	22.00			4089.00	
Bullnose	3.00			4092.00	93.00 Bottom Packers & Anchor

Total Tool Length: 121.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc.

33-9s-27w Sheridan,KS

250 N Water Ste300
Wichita KS 67202

Keith #1-33

Job Ticket: 54106

DST#: 3

ATTN: Charles Schmaltz

Test Start: 2014.03.28 @ 01:55:05

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:

55000 ppm

Viscosity: 70.00 sec/qt

Cushion Volume:

bbf

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
115.00	OS WCM 40%W 60%M	0.566
45.00	OS VSWCM 5%W 95%M	0.631

Total Length: 160.00 ft

Total Volume: 1.197 bbf

Num Fluid Samples: 0

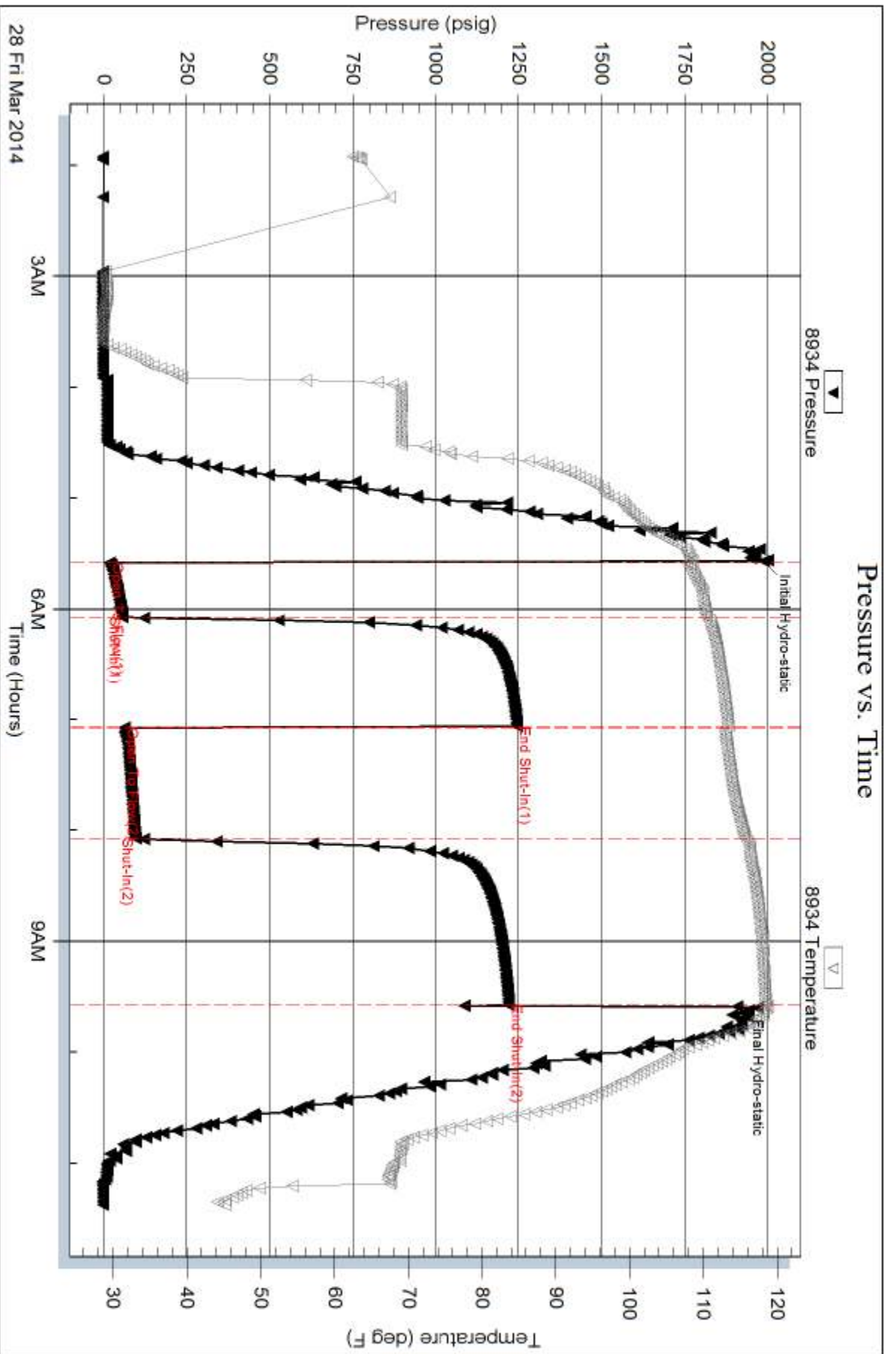
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

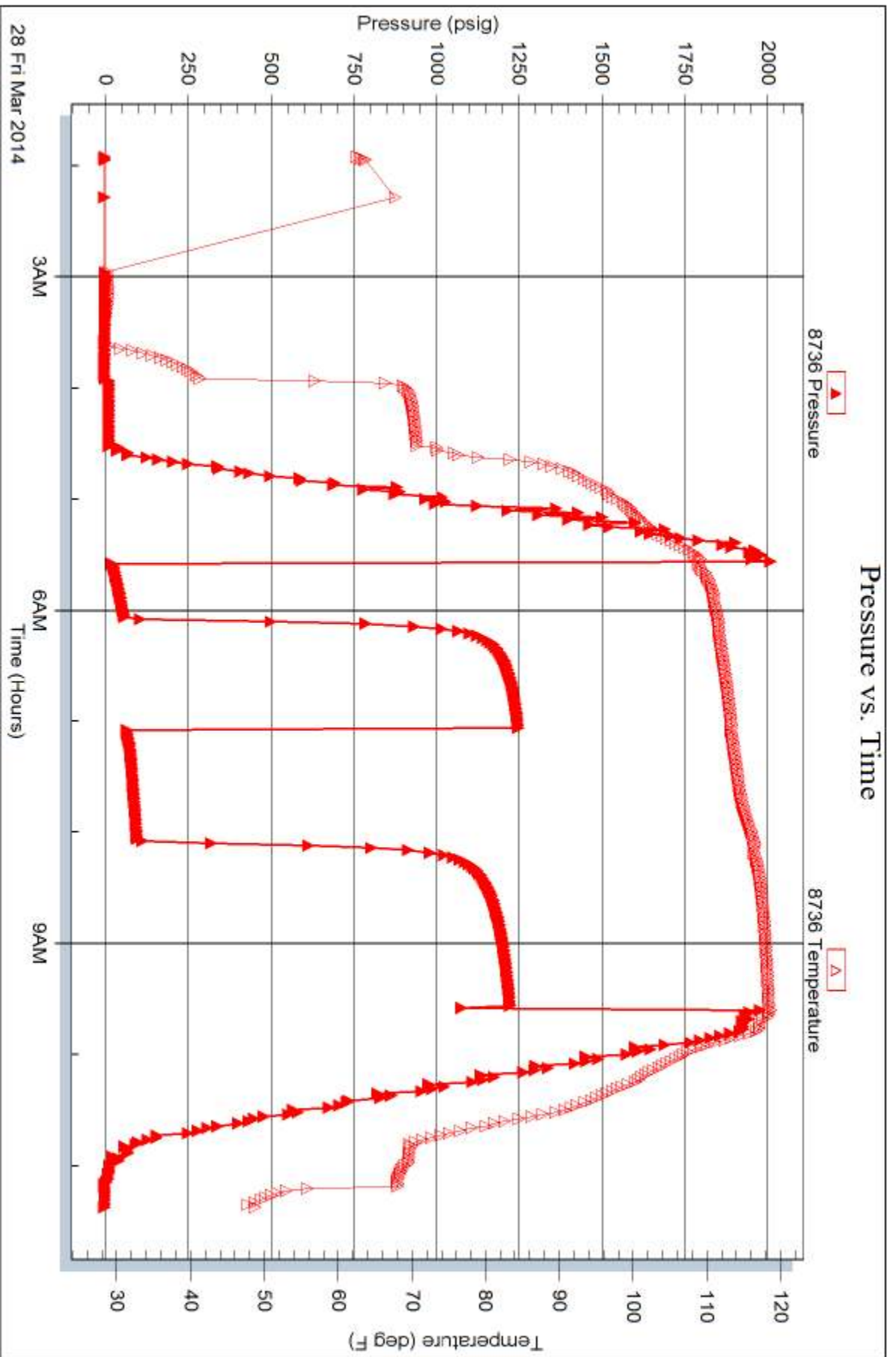


Serial #: 8736

Outside Murfin Drilling Co Inc.

Keith #1-33

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 54106

Printed: 2014.04.01 @ 16:48:53



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **54104**

Well Name & No. Keith - Well #1-33 Test No. 1 Date 3/26/14
 Company Martin Drilling Co, Inc. Elevation 2702 KB 2697 GL
 Address 250 N Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Charles Schmaltz Rig Martin #24
 Location: Sec. 33 Twp. 9 Rge. 27 Co. Sheridan State KS

Interval Tested 3882 - 3922 Zone Tested AC" B-D"
 Anchor Length 40 Drill Pipe Run _____ Mud Wt. 8.7
 Top Packer Depth 3877 Drill Collars Run 115 Vis 5.6
 Bottom Packer Depth 3882 Wt. Pipe Run _____ WL 5.6
 Total Depth 3922 Chlorides 3,000 ppm System LCM 3
 Blow Description IF - 1 1/4 in blow died back to lin
ISI - No blow
FF - weak surface blow
FSI - No blow

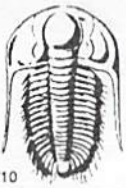
Rec	Feet of	%gas	%oil	%water	%mud
<u>8</u>	<u>Free Oil</u>				
<u>55</u>	<u>USOCM</u>		<u>5</u>		<u>95</u>
____	____				
____	____				
____	____				

Rec Total 63 BHT 115 Gravity 22 API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>4,908</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>5:20</u>
(B) First Initial Flow <u>30</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>6:30</u>
(C) First Final Flow <u>37</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:00</u>
(D) Initial Shut-In <u>1,091</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>14:00</u>
(E) Second Initial Flow <u>39</u>	<input checked="" type="checkbox"/> Hourly Standby _____	T-Out <u>15:57</u>
(F) Second Final Flow <u>46</u>	<input checked="" type="checkbox"/> Mileage <u>144 RT 102rt 158.10</u>	Comments _____
(G) Final Shut-In <u>1,037</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>4,898</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>1633.10</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1633.10</u>	

Approved By _____ Our Representative Beth D. ...

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. 54105

Well Name & No. Keith Well #1-33 Test No. 2 Date 3/27/14
 Company Murfin Drilling Co, Inc. Elevation 2702 KB 2697 GL
 Address 250 N Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Charles Schmaltz Rig Murfin #24
 Location: Sec. 33 Twp. 9 Rge. 27 Co. Sheridan State KS

Interval Tested 3919 - 3942 Zone Tested KC
 Anchor Length 23 Drill Pipe Run _____ Mud Wt. 9.0
 Top Packer Depth 3914 Drill Collars Run 115 Vis 56
 Bottom Packer Depth 3919 Wt. Pipe Run - WL 5.6
 Total Depth 3942 Chlorides 1,500 ppm System LCM _____

Blow Description IF - 1 1/4 in blow
FSI - No blow
FF - No blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>oil spotted mud</u>				
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 10 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1914</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1:10</u>
(B) First Initial Flow <u>29</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1:25</u>
(C) First Final Flow <u>29</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>4:00</u>
(D) Initial Shut-In <u>1,597</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>7:00</u>
(E) Second Initial Flow <u>31</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>8:12</u>
(F) Second Final Flow <u>33</u>	<input checked="" type="checkbox"/> Mileage <u>144.7</u> 158.10	Comments _____
(G) Final Shut-In <u>1,372</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1,826</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

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

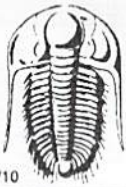
Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1633.10
 MP/DST Disc't _____

Sub Total 1633.10

Approved By _____ Our Representative Burdett

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **54106**

Well Name & No. Keith Well #1-33 Test No. 3 Date 3/28/14
 Company Murfin Drilling Co, Inc. Elevation 2702 KB 2697 GL
 Address 250 N Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Charles Schmaltz Rig Murfin #2-1
 Location: Sec. 33 Twp. 9 Rge. 27 Co. Sheridan State KS

Interval Tested 3999 - 4092 Zone Tested KC "I-L"
 Anchor Length 93 Drill Pipe Run 3868 Mud Wt. 9.1
 Top Packer Depth 3994 Drill Collars Run 115 Vis 70
 Bottom Packer Depth 3999 Wt. Pipe Run - WL 5.6
 Total Depth 4092 Chlorides 2,300 ppm System LCM 3

Blow Description IF - 3 1/4 in blow
ISI - No blow
FF - 1/2 in blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>115</u>	<u>Feet of oilspotted WCM</u>		<u>40</u>	<u>60</u>	
<u>45</u>	<u>Feet of oilspotted vs wcm</u>		<u>5</u>	<u>95</u>	

Rec Total 160 BHT 118 Gravity _____ API RW 25 @ 40 ° F Chlorides 5500 ppm

(A) Initial Hydrostatic 1,989 Test 1250 T-On Location 1:55
 (B) First Initial Flow 19 Jars 250 T-Started 1:55
 (C) First Final Flow 58 Safety Joint 75 T-Open 5:35
 (D) Initial Shut-In 1,246 Circ Sub _____ T-Pulled 9:35
 (E) Second Initial Flow 63 Hourly Standby _____ T-Out 11:25
 (F) Second Final Flow 97 Mileage 144 rT 158.10 Comments _____
 (G) Final Shut-In 1,222 Sampler _____
 (H) Final Hydrostatic 4,908 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 0
 Final Flow 60 Day Standby _____ Total 1633.10
 Final Shut-In 90 Accessibility _____ MP/DST Disc't _____
 Sub Total 1633.10

Approved By _____ Our Representative Brett Dier

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