



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water  
Suite 300  
Wchita, KS 67202

ATTN: Tom Funk

### **#1-4-14 Soucie**

### **S14-10s-34wThomas, KS**

Start Date: 2012.04.01 @ 16:26:02

End Date: 2012.04.02 @ 02:12:40

Job Ticket #: 45098                      DST #: 1

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

Printed: 2012.04.11 @ 14:04:53



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34wThomas, KS**

**#1-4-14 Soucie**

Job Ticket: 45098

**DST#: 1**

Test Start: 2012.04.01 @ 16:26:02

## GENERAL INFORMATION:

Formation: **LKC 'I,J,K'**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 19:37:10

Time Test Ended: 02:12:40

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Smith

Unit No: 37

**Interval: 4329.00 ft (KB) To 4420.00 ft (KB) (TVD)**

Total Depth: 4420.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3213.00 ft (KB)

3200.00 ft (CF)

KB to GR/CF: 13.00 ft

**Serial #: 6751 Outside**

Press @ Run Depth: 90.95 psig @ 4332.00 ft (KB)

Start Date: 2012.04.01

End Date:

2012.04.02

Start Time: 16:26:02

End Time:

02:12:40

Capacity: 8000.00 psig

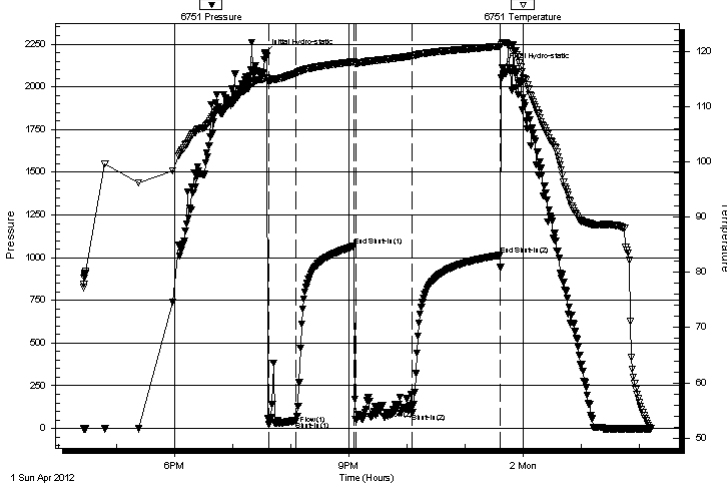
Last Calib.: 2012.04.02

Time On Btm: 2012.04.01 @ 19:33:20

Time Off Btm: 2012.04.01 @ 23:38:40

**TEST COMMENT:** 4 1/2" Blow . Plugging in first 2 min. of flow .  
No return.  
4" Blow .  
Surface return died @ 10 min.

Pressure vs. Time



## PRESSURE SUMMARY

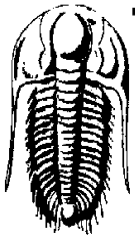
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2195.58	115.03	Initial Hydro-static
4	25.15	114.60	Open To Flow (1)
32	42.89	116.00	Shut-In(1)
93	1067.93	118.09	End Shut-In(1)
94	54.63	117.82	Open To Flow (2)
153	90.95	119.13	Shut-In(2)
243	1013.97	120.88	End Shut-In(2)
246	2112.30	121.51	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
93.00	GOSWM 5g 5w 90m	1.30
45.00	GOCM 5g 3o 92m	0.63

## Gas Rates

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



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34w Thomas, KS**

**#1-4-14 Soucie**

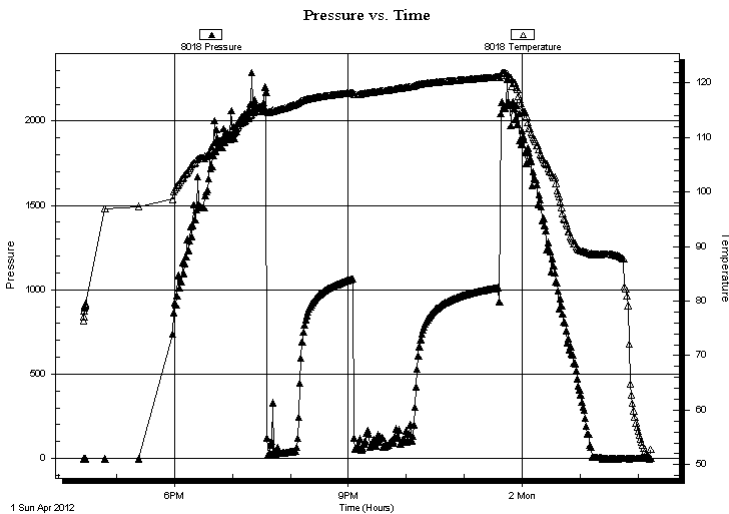
Job Ticket: 45098      **DST#: 1**  
Test Start: 2012.04.01 @ 16:26:02

### GENERAL INFORMATION:

Formation: <b>LKC 'I,J,K'</b>		Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: 0.00 ft (KB)		Tester: Chuck Smith
Time Tool Opened: 19:37:10		Unit No: 37
Time Test Ended: 02:12:40		
<b>Interval: 4329.00 ft (KB) To 4420.00 ft (KB) (TVD)</b>		Reference Elevations: 3213.00 ft (KB)
Total Depth: 4420.00 ft (KB) (TVD)		3200.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good		KB to GR/CF: 13.00 ft

<b>Serial #: 8018</b>	<b>Inside</b>		
Press @RunDepth:      psig @      4332.00 ft (KB)	Capacity:      8000.00 psig		
Start Date:      2012.04.01      End Date:      2012.04.02	Last Calib.:      2012.04.02		
Start Time:      16:26:02      End Time:      02:12:40	Time On Btm:		
	Time Off Btm:		

**TEST COMMENT:** 4 1/2" Blow . Plugging in first 2 min. of flow .  
No return.  
4" Blow .  
Surface return died @ 10 min.



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
93.00	GOSWM 5g 5w 90m	1.30
45.00	GOCM 5g 3o 92m	0.63

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34wThomas, KS**

**#1-4-14 Soucie**

Job Ticket: 45098

**DST#: 1**

Test Start: 2012.04.01 @ 16:26:02

## Tool Information

Drill Pipe:	Length: 4328.00 ft	Diameter: 3.80 inches	Volume: 60.71 bbl	Tool Weight: 2000.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 60.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4329.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	91.00 ft			
Tool Length:	111.00 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			4310.00	
Shut In Tool	5.00			4315.00	
Hydraulic tool	5.00			4320.00	
Packer	5.00			4325.00	20.00 Bottom Of Top Packer
Packer	4.00			4329.00	
Stubb	1.00			4330.00	
Perforations	2.00			4332.00	
Recorder	0.00	8018	Inside	4332.00	
Recorder	0.00	6751	Outside	4332.00	
Perforations	20.00			4352.00	
Change Over Sub	1.00			4353.00	
Drill Pipe	63.00			4416.00	
Change Over Sub	1.00			4417.00	
Bullnose	3.00			4420.00	91.00 Bottom Packers & Anchor

**Total Tool Length: 111.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34w Thomas, KS**  
**#1-4-14 Soucie**  
Job Ticket: 45098      **DST#: 1**  
Test Start: 2012.04.01 @ 16:26:02

## Mud and Cushion Information

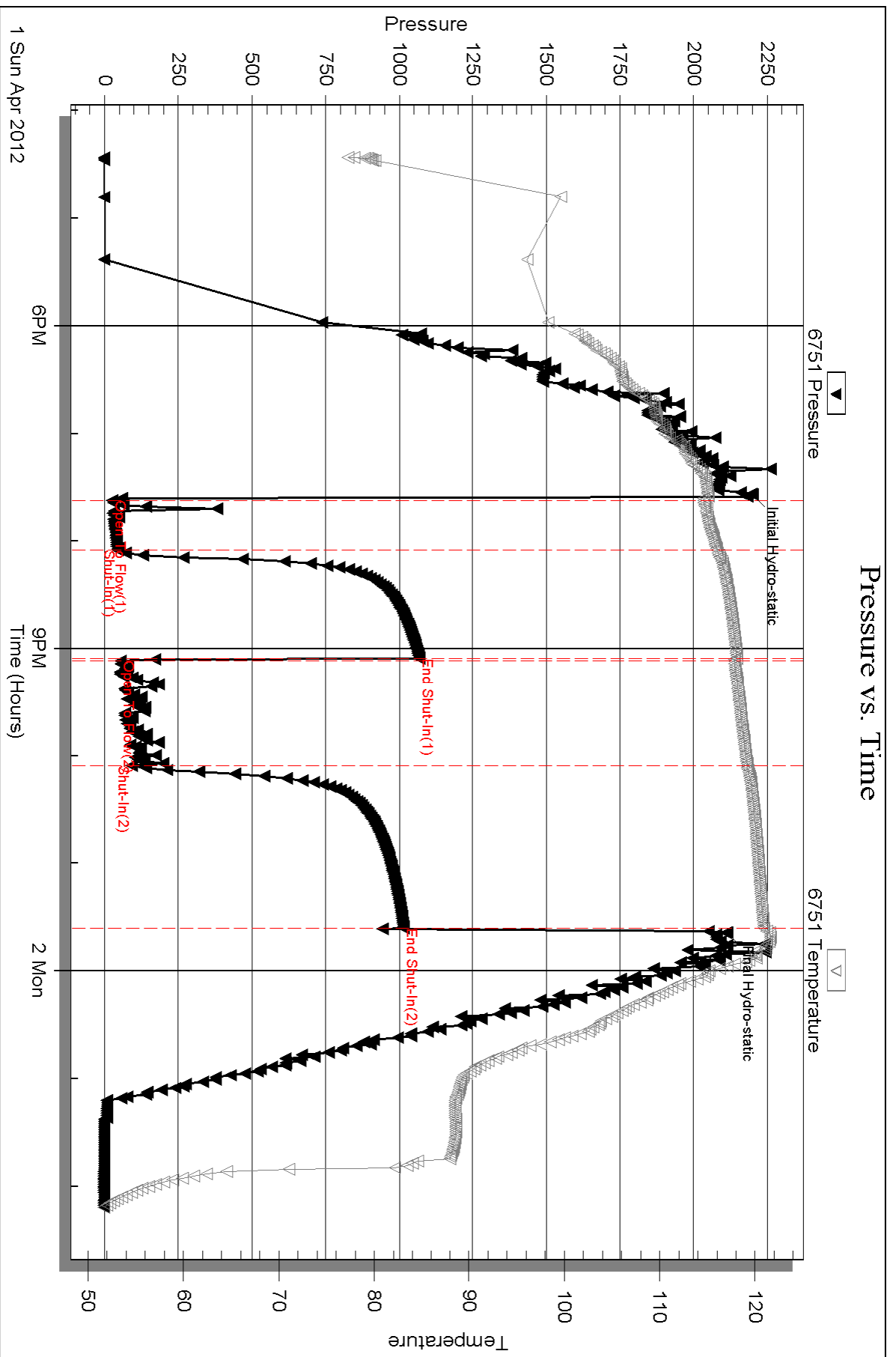
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	40000 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3900.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
93.00	GOSWM 5g 5w 90m	1.305
45.00	GOCM 5g 3o 92m	0.631

Total Length: 138.00 ft      Total Volume: 1.936 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: RW:.260 @ 50 Degrees F = 40000 PPM



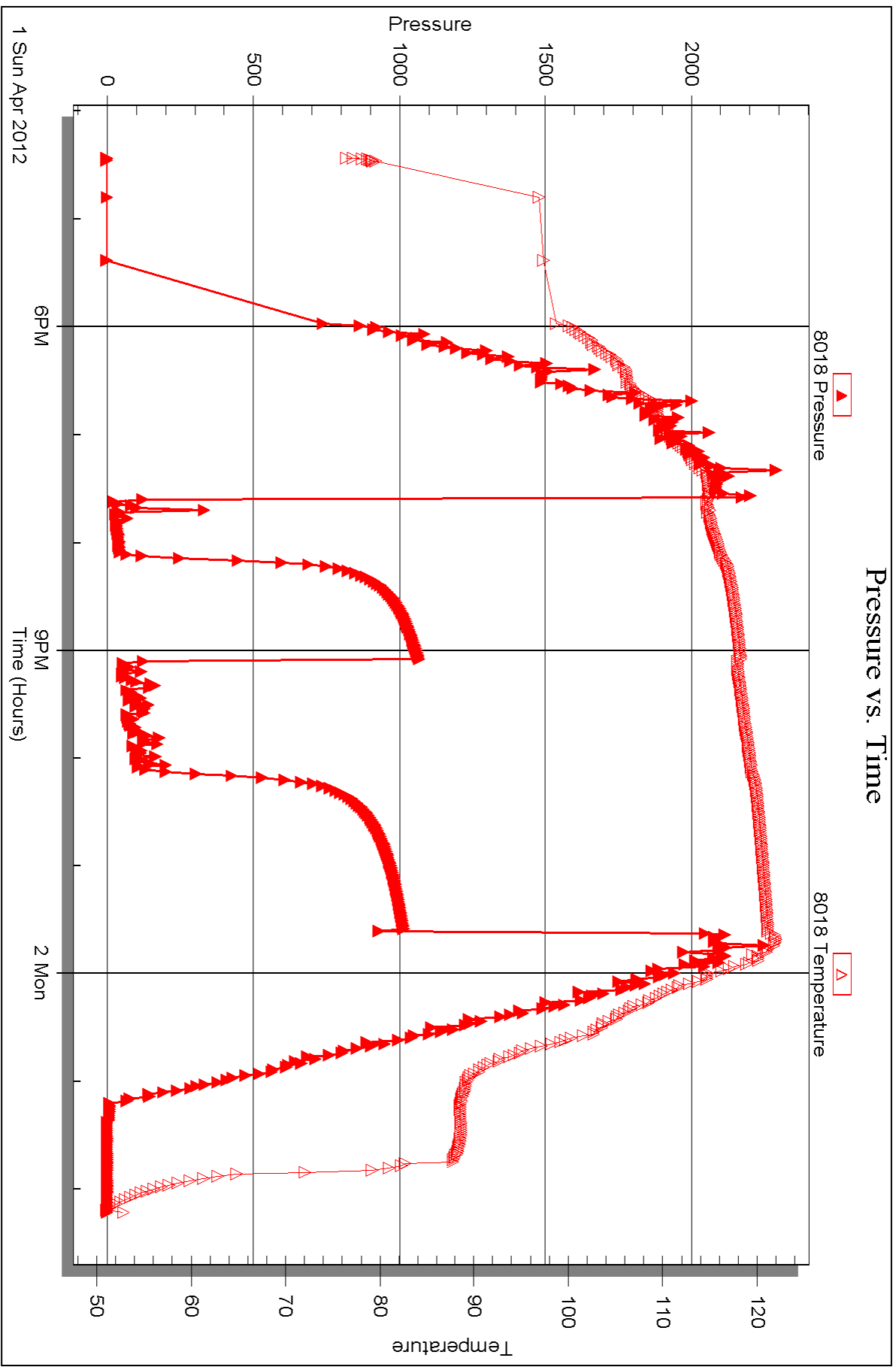
Serial #: 8018

Inside

Murfin Drilling Co.

#1-4-14 Soucie

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 45098

Printed: 2012.04.11 @ 14:04:55



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water  
Suite 300  
Wchita, KS 67202

ATTN: Tom Funk

**#1-4-14 Soucie**

**S14-10s-34wThomas, KS**

Start Date: 2012.04.02 @ 02:50:02

End Date: 2012.04.02 @ 13:16:10

Job Ticket #: 46462                      DST #: 2

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

Printed: 2012.04.11 @ 14:04:03

Murfin Drilling Co.

S14-10s-34wThomas, KS

#1-4-14 Soucie

DST # 2

myran station (lowe

2012.04.02





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34wThomas, KS**

**#1-4-14 Soucie**

Job Ticket: 46462

**DST#: 2**

Test Start: 2012.04.02 @ 02:50:02

## GENERAL INFORMATION:

Formation: **myran station (lowe)**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 06:12:10

Time Test Ended: 13:16:10

Test Type: Conventional Bottom Hole (Reset)

Tester: Cole Archibald

Unit No: 37

**Interval: 4605.00 ft (KB) To 4650.00 ft (KB) (TVD)**

Reference Elevations: 3213.00 ft (KB)

Total Depth: 4650.00 ft (KB) (TVD)

3200.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 13.00 ft

**Serial #: 6751 Outside**

Press @ Run Depth: 136.97 psig @ 4606.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.04.02

End Date: 2012.04.02

Last Calib.: 2012.04.03

Start Time: 02:50:02

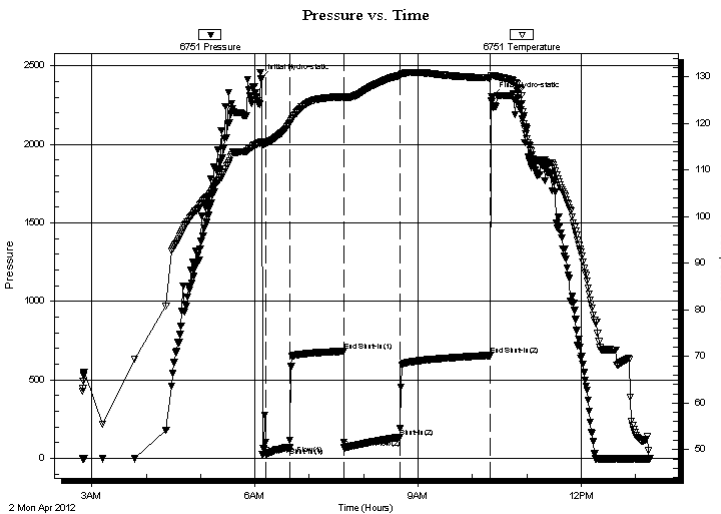
End Time: 13:16:10

Time On Btm: 2012.04.02 @ 06:06:10

Time Off Btm: 2012.04.02 @ 10:21:00

**TEST COMMENT:** Built to 4 inch  
No return  
3 inch blow died to 1/4 inch  
No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2419.67	115.87	Initial Hydro-static
6	29.51	115.71	Open To Flow (1)
32	69.12	119.94	Shut-In(1)
92	682.60	125.69	End Shut-In(1)
93	66.89	125.43	Open To Flow (2)
154	136.97	130.30	Shut-In(2)
254	655.10	129.75	End Shut-In(2)
255	2300.34	130.25	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
280.00	WCM W60% M40%	3.93

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

**DRILL STEM TEST REPORT**

Murfin Drilling Co.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34wThomas, KS**

**#1-4-14 Soucie**

Job Ticket: 46462

**DST#: 2**

Test Start: 2012.04.02 @ 02:50:02

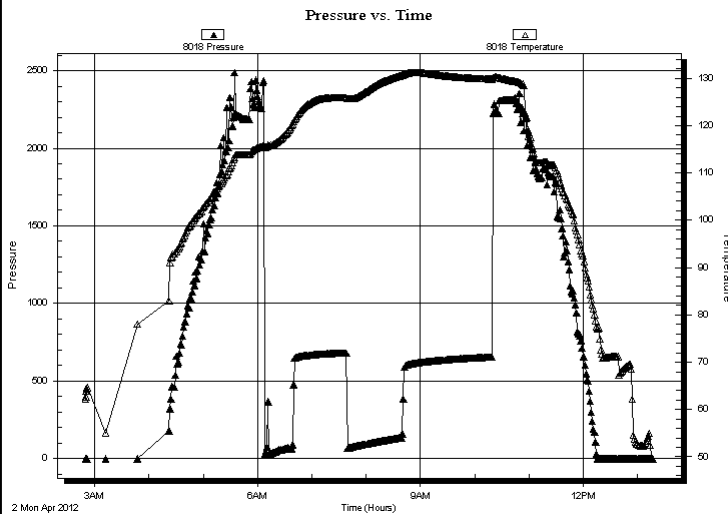
**GENERAL INFORMATION:**

Formation: **myran station (lowe)**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 06:12:10  
 Time Test Ended: 13:16:10  
 Interval: **4605.00 ft (KB) To 4650.00 ft (KB) (TVD)**  
 Total Depth: 4650.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cole Archibald  
 Unit No: 37  
 Reference Elevations: 3213.00 ft (KB)  
 3200.00 ft (CF)  
 KB to GR/CF: 13.00 ft

**Serial #: 8018 Inside**

Press @ Run Depth: psig @ 4606.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.04.02 End Date: 2012.04.02 Last Calib.: 2012.04.03  
 Start Time: 02:50:02 End Time: 13:16:19 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** Built to 4 inch  
 No return  
 3 inch blow died to 1/4 inch  
 No return



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
280.00	WCM W60% M40%	3.93

\* 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.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34wThomas, KS**

**#1-4-14 Soucie**

Job Ticket: 46462

**DST#: 2**

Test Start: 2012.04.02 @ 02:50:02

## Tool Information

Drill Pipe:	Length: 4612.00 ft	Diameter: 3.80 inches	Volume: 64.69 bbl	Tool Weight: 2000.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 64.69 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4605.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	65.00 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			4586.00	
Shut In Tool	5.00			4591.00	
Hydraulic tool	5.00			4596.00	
Packer	5.00			4601.00	20.00 Bottom Of Top Packer
Packer	4.00			4605.00	
Stubb	1.00			4606.00	
Recorder	0.00	8018	Inside	4606.00	
Recorder	0.00	6751	Outside	4606.00	
Perforations	41.00			4647.00	
Bullnose	3.00			4650.00	45.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>65.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34wThomas, KS**

**#1-4-14 Soucie**

Job Ticket: 46462

**DST#: 2**

Test Start: 2012.04.02 @ 02:50:02

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 57.00 sec/qt  
Water Loss: 6.38 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 5600.00 ppm  
Filter Cake: 2.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
280.00	WCM W60% M40%	3.928

Total Length: 280.00 ft      Total Volume: 3.928 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

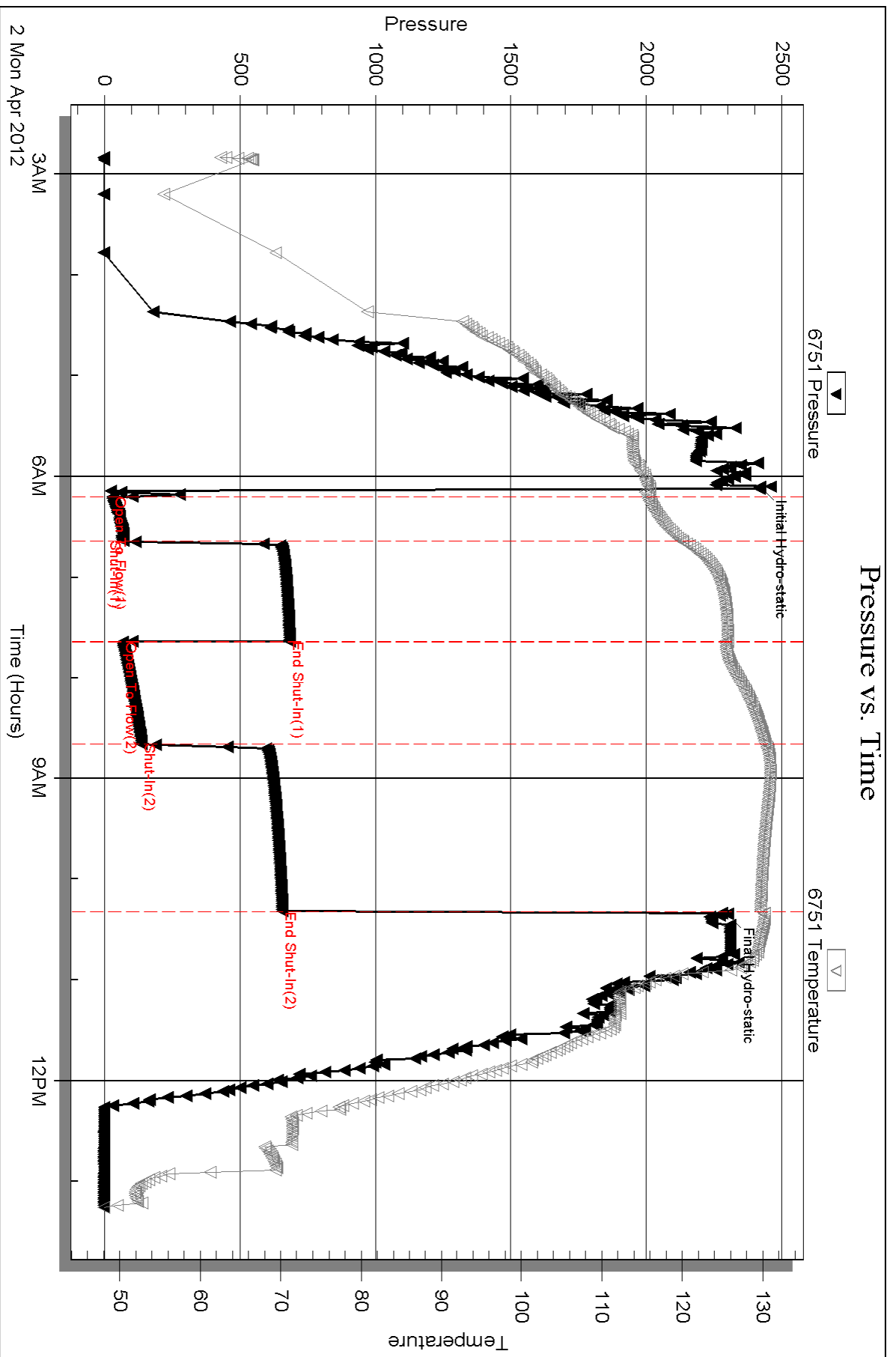
Recovery Comments: RW:.117 @ 67 Degrees F = 80000 PPM

Serial #: 6751

Outside Murfin Drilling Co.

#1-4-14 Soucie

DST Test Number: 2



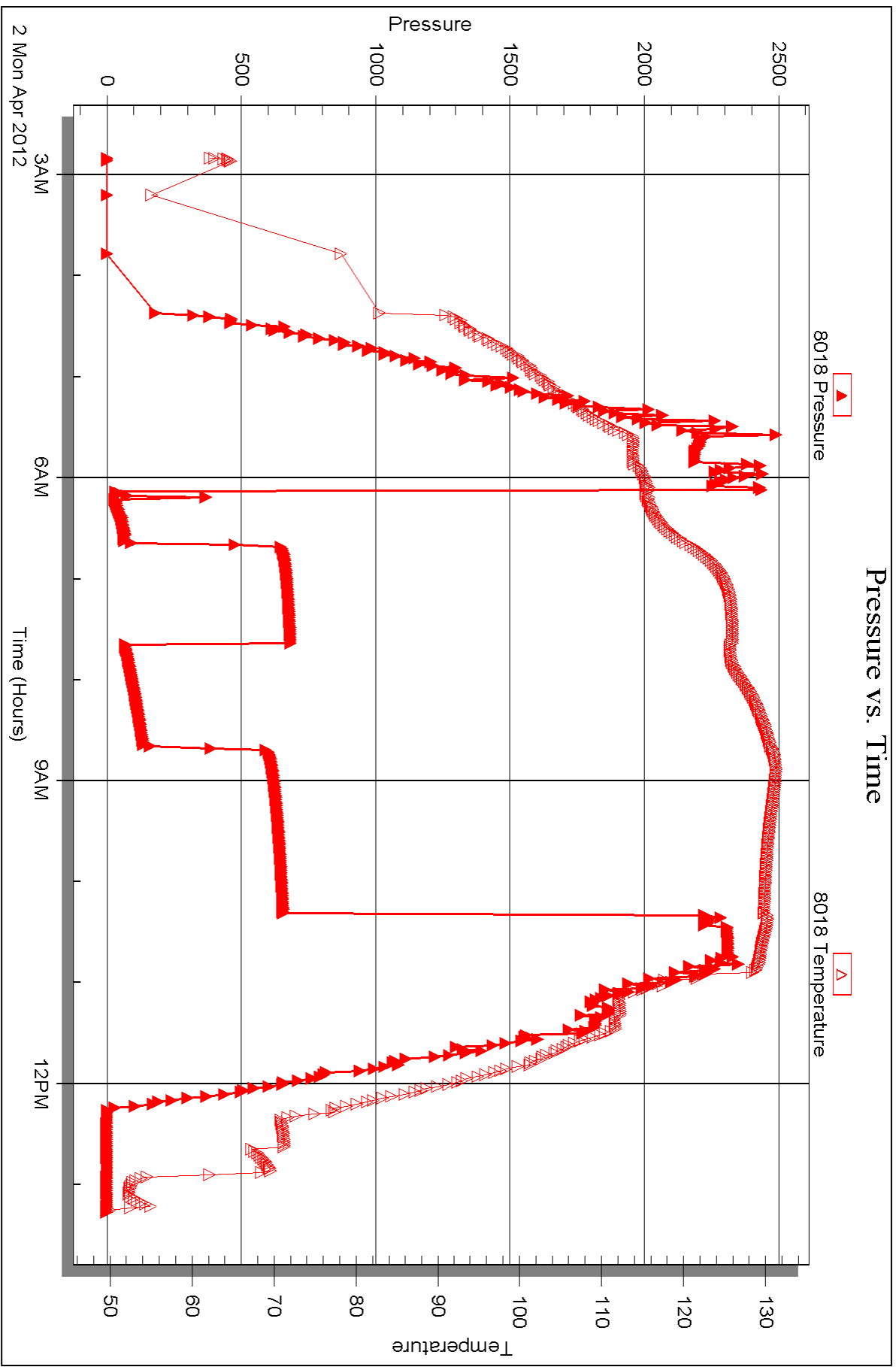
Serial #: 8018

Inside

Murfin Drilling Co.

#1-4-14 Soucie

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water  
Suite 300  
Wchita, KS 67202

ATTN: Tom Funk

### **#1-4-14 Soucie**

### **S14-10s-34wThomas, KS**

Start Date: 2012.04.04 @ 05:00:02

End Date: 2012.04.04 @ 12:14:00

Job Ticket #: 46463                      DST #: 3

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

Printed: 2012.04.11 @ 14:03:12



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34w Thomas, KS**

**#1-4-14 Soucie**

Job Ticket: 46463

**DST#: 3**

Test Start: 2012.04.04 @ 05:00:02

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 07:00:30

Time Test Ended: 12:14:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cole Archibald

Unit No: 37

**Interval: 4696.00 ft (KB) To 4740.00 ft (KB) (TVD)**

Total Depth: 4420.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 3213.00 ft (KB)

3200.00 ft (CF)

KB to GR/CF: 13.00 ft

**Serial #: 8018 Inside**

Press @ Run Depth: 28.99 psig @ 4697.00 ft (KB)

Start Date: 2012.04.04

End Date: 2012.04.04

Start Time: 05:00:02

End Time: 12:14:00

Capacity: 8000.00 psig

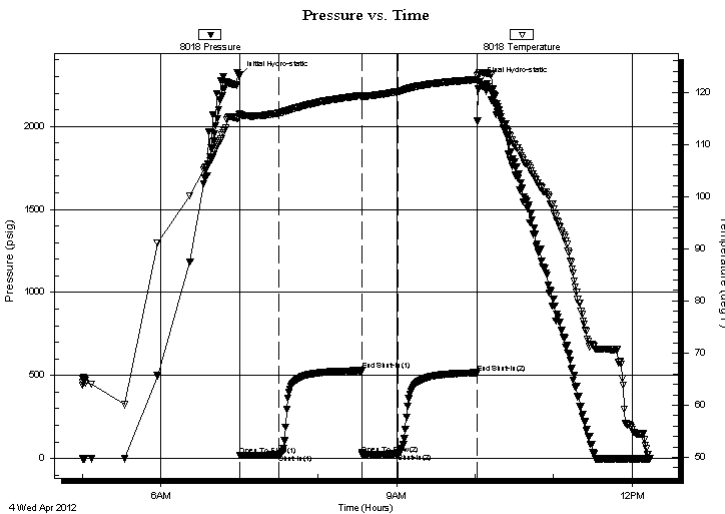
Last Calib.: 2012.04.04

Time On Btm: 2012.04.04 @ 06:59:50

Time Off Btm: 2012.04.04 @ 10:03:20

**TEST COMMENT:** weak surface blow  
no return  
no blow  
no return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2307.56	115.70	Initial Hydro-static
1	17.59	115.60	Open To Flow (1)
31	22.94	116.02	Shut-In(1)
94	529.85	119.38	End Shut-In(1)
94	25.46	119.12	Open To Flow (2)
122	28.99	120.15	Shut-In(2)
182	516.34	122.44	End Shut-In(2)
184	2270.49	123.80	Final Hydro-static

## Recovery

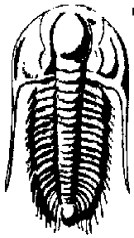
Length (ft)	Description	Volume (bbl)
30.00	M 100% M	0.42

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34wThomas, KS**

**#1-4-14 Soucie**

Job Ticket: 46463

**DST#: 3**

Test Start: 2012.04.04 @ 05:00:02

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 07:00:30

Time Test Ended: 12:14:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cole Archibald

Unit No: 37

**Interval: 4696.00 ft (KB) To 4740.00 ft (KB) (TVD)**

Reference Elevations: 3213.00 ft (KB)

Total Depth: 4420.00 ft (KB) (TVD)

3200.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 13.00 ft

**Serial #: 6751 Outside**

Press @RunDepth: psig @ 4697.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.04.04

End Date:

2012.04.04

Last Calib.:

2012.04.04

Start Time: 05:00:32

End Time:

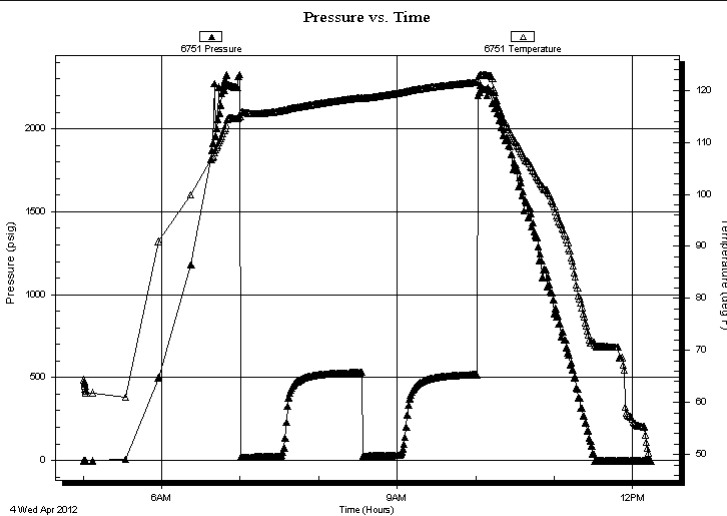
12:14:00

Time On Btm:

Time Off Btm:

**TEST COMMENT:** weak surface blow  
no return  
no blow  
no return

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	M 100% M	0.42

## 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.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34wThomas, KS**

**#1-4-14 Soucie**

Job Ticket: 46463

**DST#: 3**

Test Start: 2012.04.04 @ 05:00:02

## Tool Information

Drill Pipe:	Length: 4675.00 ft	Diameter: 3.80 inches	Volume: 65.58 bbl	Tool Weight: 2000.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 65.58 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4696.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	72.00 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			4669.00	
Shut In Tool	5.00			4674.00	
Hydraulic tool	5.00			4679.00	
Jars	5.00			4684.00	
Safety Joint	3.00			4687.00	
Packer	5.00			4692.00	28.00 Bottom Of Top Packer
Packer	4.00			4696.00	
Stubb	1.00			4697.00	
Recorder	0.00	8018	Inside	4697.00	
Recorder	0.00	6751	Outside	4697.00	
Perforations	40.00			4737.00	
Bullnose	3.00			4740.00	44.00 Bottom Packers & Anchor

**Total Tool Length: 72.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.  
250 N. Water  
Suite 300  
Wchita, KS 67202  
ATTN: Tom Funk

**S14-10s-34wThomas, KS**  
**#1-4-14 Soucie**  
Job Ticket: 46463      **DST#: 3**  
Test Start: 2012.04.04 @ 05:00:02

## Mud and Cushion Information

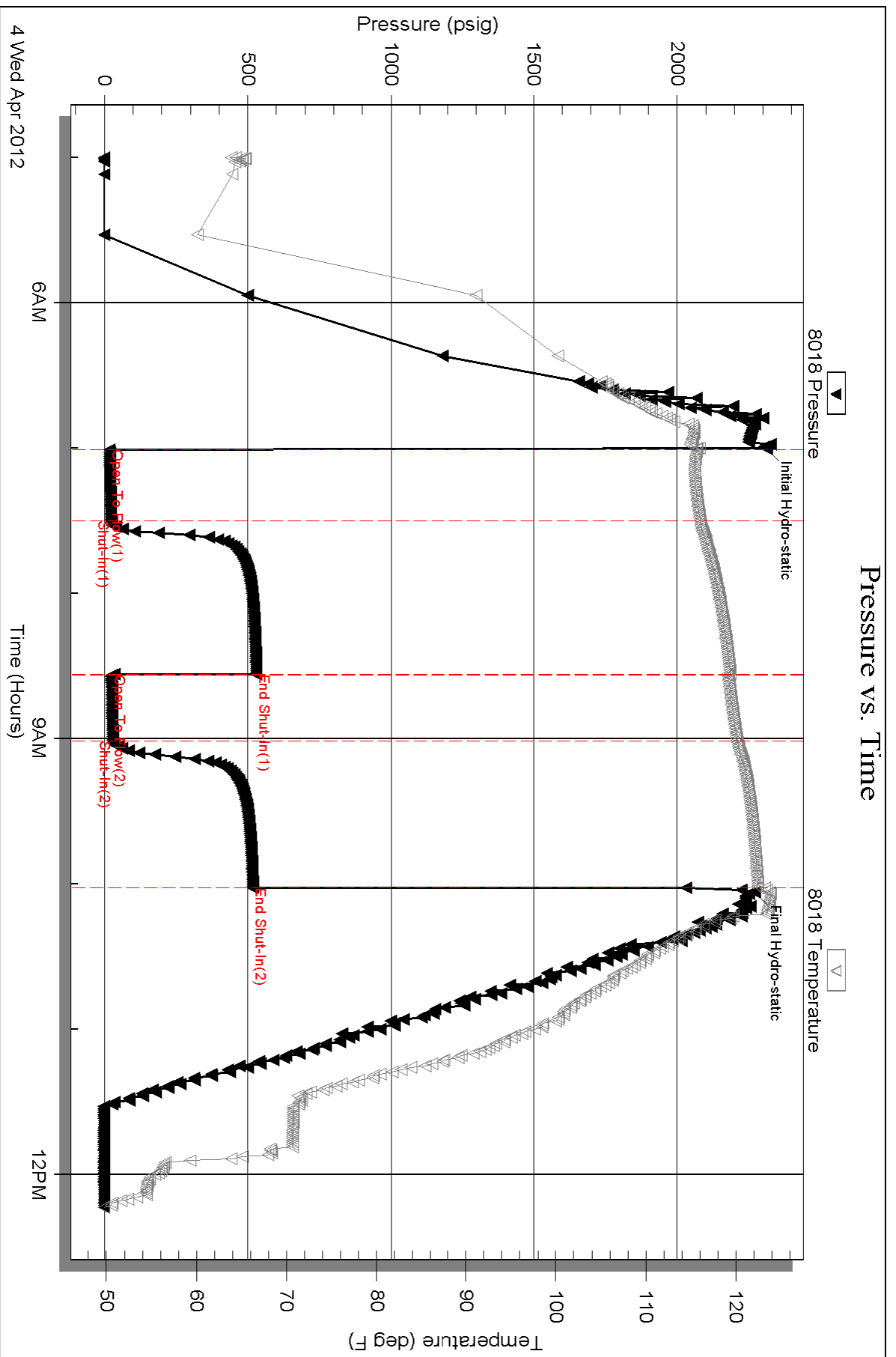
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.39 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	M 100% M	0.421

Total Length: 30.00 ft      Total Volume: 0.421 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

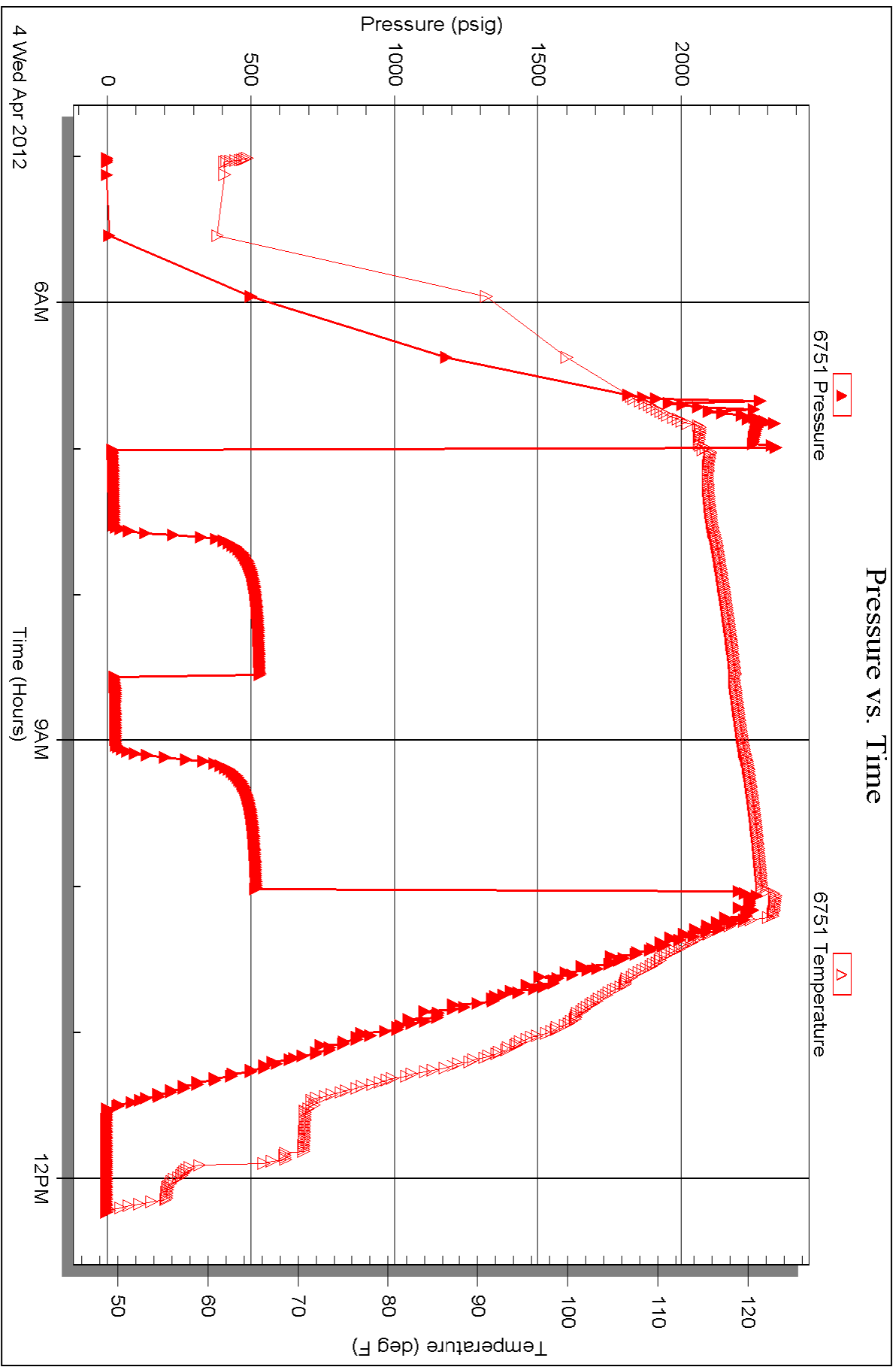


Serial #: 6751

Outside Murfin Drilling Co.

#1-4-14 Soucie

DST Test Number: 3





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## Test Ticket

BY: \_\_\_\_\_

NO. \_\_\_\_\_

Well Name & No. #1-14 Soucie Test No. 1 Date 4-1-12  
 Company Murfin Drilling Co. Elevation 3213 KB 3200 GL  
 Address 250 N. Water Ste. 300 Wichita, KS 67202  
 Co. Rep / Geo. Tom Funk Rig MDC #25  
 Location: Sec. 14 Twp. 10s Rge. 34w Co. Thomas State KS

Interval Tested 4329-4420 Zone Tested LKC 'T, S, K'  
 Anchor Length 91 Drill Pipe Run 4328 Mud Wt. 9.2  
 Top Packer Depth 4325 Drill Collars Run 0 Vis 56  
 Bottom Packer Depth 4329 Wt. Pipe Run 0 WL 6.0  
 Total Depth 4420 Chlorides 3900 ppm System LCM 7  
 Blow Description 4 1/2" Blow Plugging in 1st 2 minutes.  
No return.  
4" Blow.  
Surface return died @ 10 min.

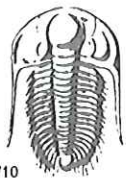
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>45</u>	Feet of <u>6.0 CM</u>	<u>5</u>	<u>3</u>	<u>92</u>	<u>92</u>
Rec <u>93</u>	Feet of <u>6.0 SWM</u>	<u>5</u>	<u>5</u>	<u>90</u>	<u>90</u>
Rec _____	Feet of _____	_____	_____	_____	_____
Rec _____	Feet of _____	_____	_____	_____	_____

Rec Total 138 BHT 121 Gravity - API RW 260 @ 50 °F Chlorides 40,000 ppm

(A) Initial Hydrostatic 2196  Test 1225' T-On Location 15:15  
 (B) First Initial Flow 25  Jars \_\_\_\_\_ T-Started 16:26  
 (C) First Final Flow 43  Safety Joint \_\_\_\_\_ T-Open 18:19:37  
 (D) Initial Shut-In 1068  Circ Sub N/C T-Pulled 23:36  
 (E) Second Initial Flow 55  Hourly Standby 1hr 100' T-Out 2:13  
 (F) Second Final Flow 91  Mileage 127RT 177.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 1032  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2112  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 1502.80  
 Final Flow 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 190 Sub Total 1502.80

Approved By [Signature] Our Representative Chuck Smith

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.



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## Test Ticket

NO. 46462

Well Name & No. Soucie 1-4-14 Test No. 2 Date 4-2-12  
 Company Murkin Drilling Co Elevation 3213 KB 3200 GL  
 Address 250 N WATER SUITE 300 WICHITA, KS 67202  
 Co. Rep / Geo. TOM FUNK Rig MURKIN 25  
 Location: Sec. 14 S Twp. 10 S Rge. 34 W Co. Thomas State KS

Interval Tested 4605-4650 Zone Tested MIRAN Station (Lower Pawnee)  
 Anchor Length 45 Drill Pipe Run 4612 Mud Wt. 9.2  
 Top Packer Depth 4600 Drill Collars Run — Vis 57  
 Bottom Packer Depth 4605 Wt. Pipe Run — WL 6.4  
 Total Depth 4650 Chlorides 5,600 ppm System LCM 8#  
 Blow Description building blow 4 inch  
no Returns  
3 inch blow died to 1/4 inch

Rec	Feet of	%gas	%oil	%water	%mud
<u>280</u>	<u>WCM</u>		<u>60</u>	<u>40</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

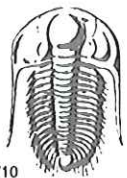
Rec Total 280 BHT 129 Gravity — API RW 117 @ 67 °F Chlorides 80,000 ppm

(A) Initial Hydrostatic 2,420  Test 1225 T-On Location 21:45  
 (B) First Initial Flow 30  Jars — T-Started 23:34  
 (C) First Final Flow 69  Safety Joint — T-Open 2:50  
 (D) Initial Shut-In 682  Circ Sub N-C T-Pulled 6:50  
 (E) Second Initial Flow 67  Hourly Standby — T-Out 13:16  
 (F) Second Final Flow 137  Mileage 12.4 R/T13<sup>60</sup> Comments —  
 (G) Final Shut-In 655  Sampler —  
 (H) Final Hydrostatic 2,300  Straddle —  Ruined Shale Packer —  
 Shale Packer —  Ruined Packer —

Initial Open 30  Extra Packer —  Extra Copies —  
 Initial Shut-In 60  Extra Recorder — Sub Total Ø  
 Final Flow 60  Day Standby — Total 1398<sup>60</sup>  
 Final Shut-In 90  Accessibility — MP/DST Disc't —  
 Sub Total 1398<sup>60</sup>

Approved By [Signature] Our Representative Cole Archibald

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APR 06 2012

## Test Ticket

NO. 46463

4/10

BY: \_\_\_\_\_

Well Name & No. Soucie 1-4-14 Test No. 3 Date 4-04-12  
 Company Murfin Drilling Co Elevation 3213 KB 3200 GL  
 Address 250 N Water Suite 300 Wichita KS 67202  
 Co. Rep / Geo. Tom Funk Rig Murfin 25  
 Location: Sec. 19S Twp. 10S Rge. 34W Co. Thomas State KS

Interval Tested 4696-4740 Zone Tested Johnson  
 Anchor Length 44 Drill Pipe Run 4675 Mud Wt. 9.2  
 Top Packer Depth 4691 Drill Collars Run — Vis 50  
 Bottom Packer Depth 4696 Wt. Pipe Run — WL 6.8  
 Total Depth 4740 Chlorides 8000 ppm System LCM 4#  
 Blow Description weak surface blow  
No Return  
No blow  
No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>M</u>				<u>M</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 122° Gravity — API RW — @ — °F Chlorides — ppm  
 (A) Initial Hydrostatic 2308  Test 1225" T-On Location 3:25  
 (B) First Initial Flow 18  Jars 250" T-Started 5:00  
 (C) First Final Flow 23  Safety Joint 75 T-Open 7:00  
 (D) Initial Shut-In 530  Circ Sub N/C T-Pulled 10:00  
 (E) Second Initial Flow 25  Hourly Standby \_\_\_\_\_ T-Out 12:14  
 (F) Second Final Flow 29  Mileage 128-R + 173<sup>60</sup> Comments \_\_\_\_\_  
 (G) Final Shut-In 516  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2270  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1723<sup>60</sup>  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1723<sup>60</sup>

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 30  
 Final Shut-In 60  
 Approved By [Signature] Our Representative [Signature]

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