



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

205 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

**JLM #1-15**

**S15-21s-34w Finney,KS**

Start Date: 2012.10.04 @ 08:54:00

End Date: 2012.10.04 @ 16:06:30

Job Ticket #: 48459                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.09 @ 10:09:47



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
205 N. Water Suite 300  
Wichita, KS 67202  
ATTN: Jeff Christian

**S15-21s-34w Finney,KS**  
**JLM #1-15**  
Job Ticket: 48459      **DST#: 1**  
Test Start: 2012.10.04 @ 08:54:00

## GENERAL INFORMATION:

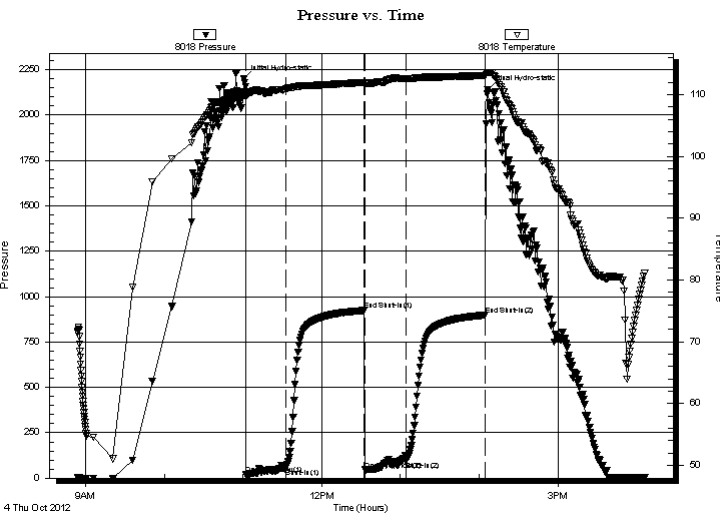
Formation: **Marmaton**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 11:02:30  
Time Test Ended: 16:06:30  
Interval: **4342.00 ft (KB) To 4400.00 ft (KB) (TVD)**  
Total Depth: 4400.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Chuck Smith  
Unit No: 62  
Reference Elevations: 2975.00 ft (KB)  
2964.00 ft (CF)  
KB to GR/CF: 11.00 ft

## Serial #: 8018

Inside

Press @ Run Depth: 92.10 psig @ 4346.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.10.04 End Date: 2012.10.04 Last Calib.: 2012.10.04  
Start Time: 08:54:05 End Time: 16:06:29 Time On Btm: 2012.10.04 @ 11:00:45  
Time Off Btm: 2012.10.04 @ 14:06:30

TEST COMMENT: 1 1/2" Blow .  
No return.  
1/4" Blow .  
No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2198.33	110.43	Initial Hydro-static
2	21.29	109.62	Open To Flow (1)
32	53.04	110.76	Shut-In(1)
92	923.93	111.95	End Shut-In(1)
93	45.20	111.74	Open To Flow (2)
124	92.10	112.54	Shut-In(2)
184	899.11	113.08	End Shut-In(2)
186	2141.82	113.57	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	SOCM 1 to 99m	0.44

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.

**S15-21s-34w Finney,KS**

205 N. Water Suite 300  
Wichita, KS 67202

**JLM #1-15**

Job Ticket: 48459

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2012.10.04 @ 08:54:00

## Tool Information

Drill Pipe:	Length: 4079.00 ft	Diameter: 3.80 inches	Volume: 57.22 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 267.00 ft	Diameter: 2.25 inches	Volume: 1.31 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 58.53 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.50 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4342.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	85.50 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			4315.50	
Shut In Tool	5.00			4320.50	
Hydraulic tool	5.00			4325.50	
Jars	5.00			4330.50	
Safety Joint	2.50			4333.00	
Packer	5.00			4338.00	27.50 Bottom Of Top Packer
Packer	4.00			4342.00	
Stubb	1.00			4343.00	
Perforations	3.00			4346.00	
Recorder	0.00	8018	Inside	4346.00	
Recorder	0.00	6751	Outside	4346.00	
Perforations	18.00			4364.00	
Change Over Sub	1.00			4365.00	
Drill Pipe	31.00			4396.00	
Change Over Sub	1.00			4397.00	
Bullnose	3.00			4400.00	58.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>85.50</b>				



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Murfin Drilling Co.

**S15-21s-34w Finney,KS**

205 N. Water Suite 300  
Wichita, KS 67202

**JLM #1-15**

Job Ticket: 48459

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2012.10.04 @ 08:54:00

**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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
90.00	SOCM 1o 99m	0.443

Total Length: 90.00 ft      Total Volume: 0.443 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

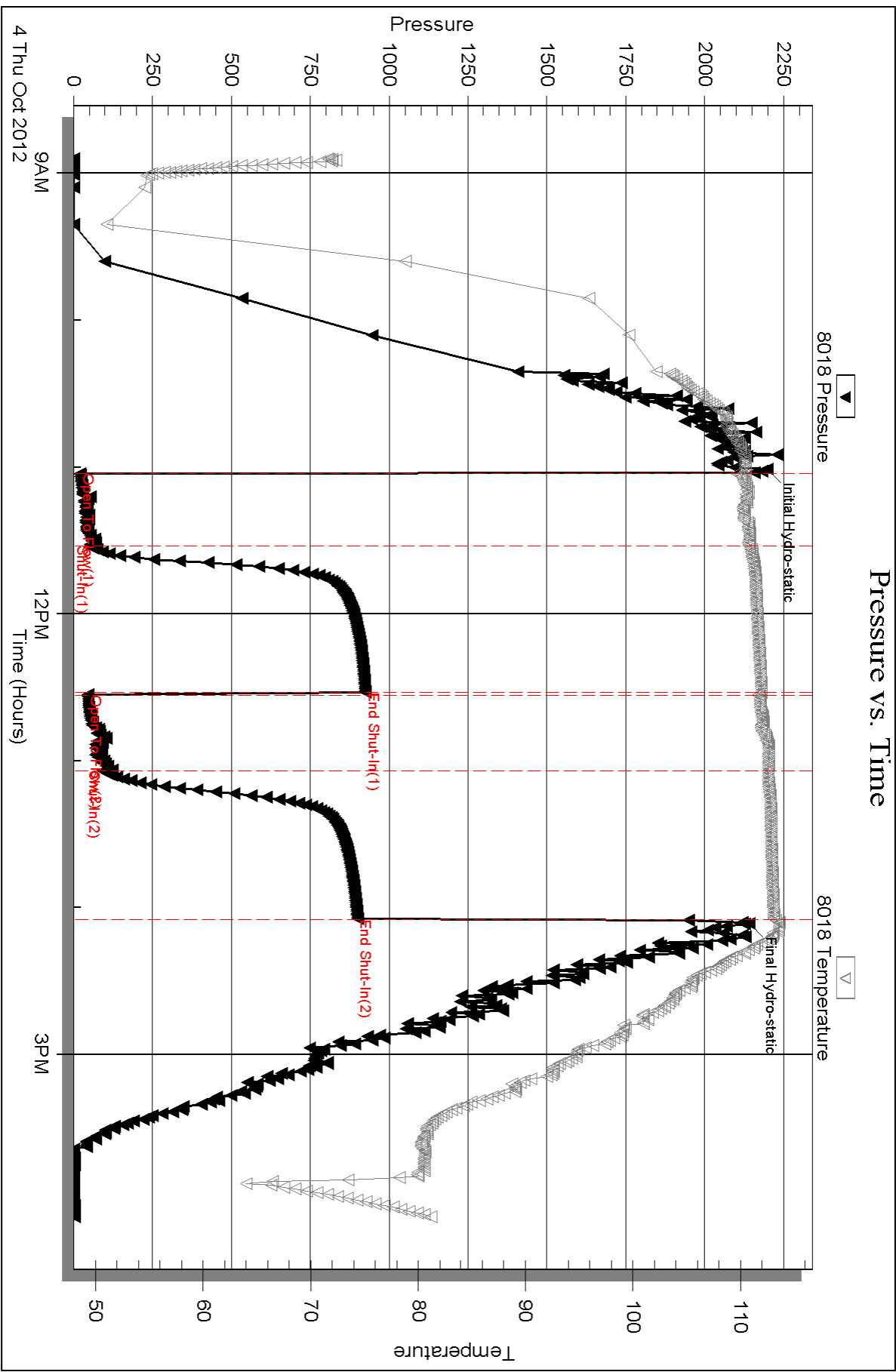
Serial #: 8018

Inside

Murfin Drilling Co.

JLM #1-15

DST Test Number: 1

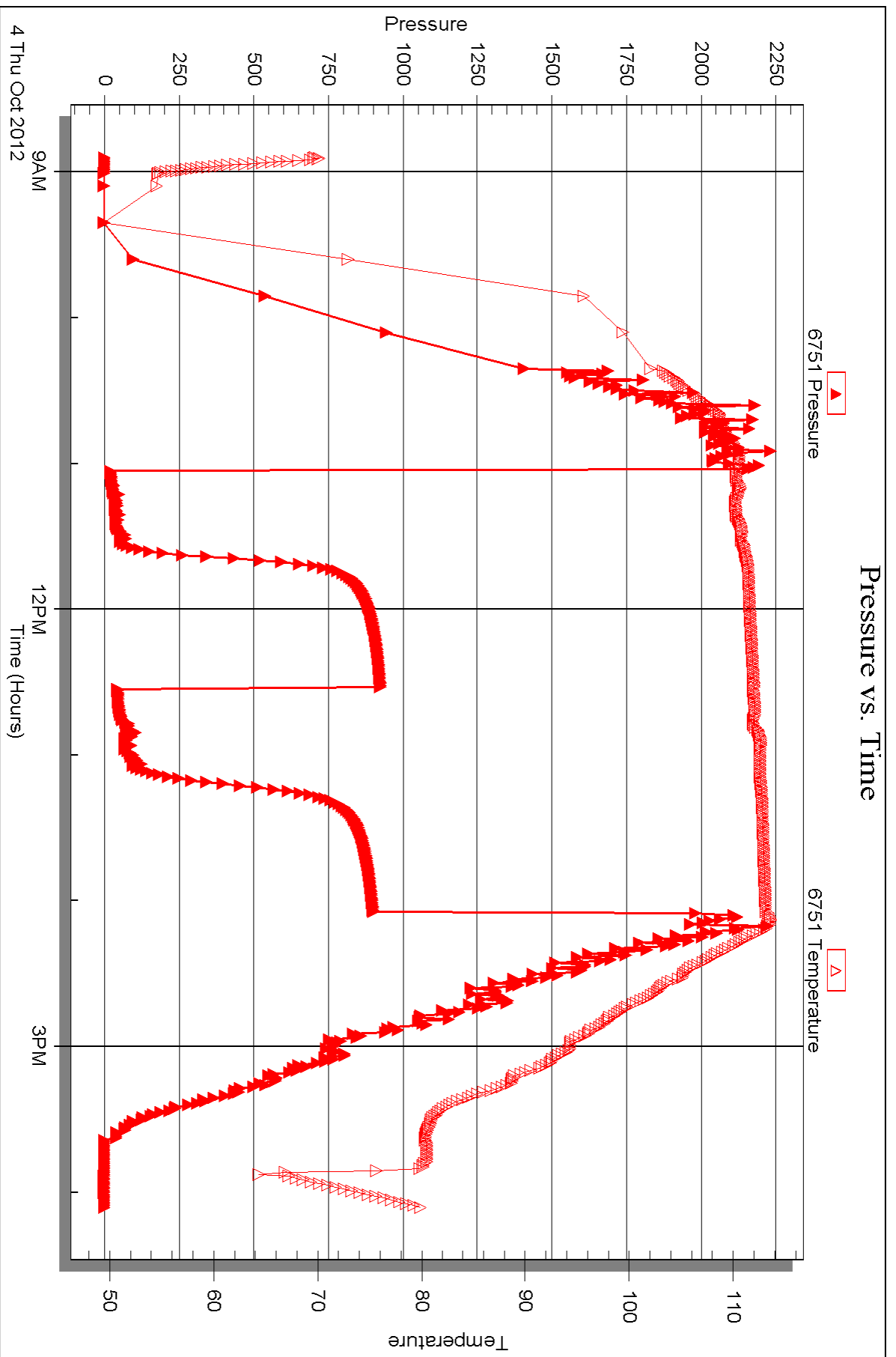


Serial #: 6751

Outside Murfin Drilling Co.

JLM #1-15

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

205 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

**JLM #1-15**

**S15-21s-34w Finney,KS**

Start Date: 2012.10.05 @ 04:44:00

End Date: 2012.10.05 @ 12:53:15

Job Ticket #: 48460                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

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**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
205 N. Water Suite 300  
Wichita, KS 67202  
ATTN: Jeff Christian

**S15-21s-34w Finney,KS**  
**JLM #1-15**  
Job Ticket: 48460      **DST#: 2**  
Test Start: 2012.10.05 @ 04:44:00

## GENERAL INFORMATION:

Formation: **Pawnee - Ft. Scott-**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 06:40:15  
Time Test Ended: 12:53:15  
Interval: **4409.00 ft (KB) To 4498.00 ft (KB) (TVD)**  
Total Depth: 4498.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Reference Elevations: 2975.00 ft (KB)  
2964.00 ft (CF)  
KB to GR/CF: 11.00 ft  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Chuck Smith  
Unit No: 62

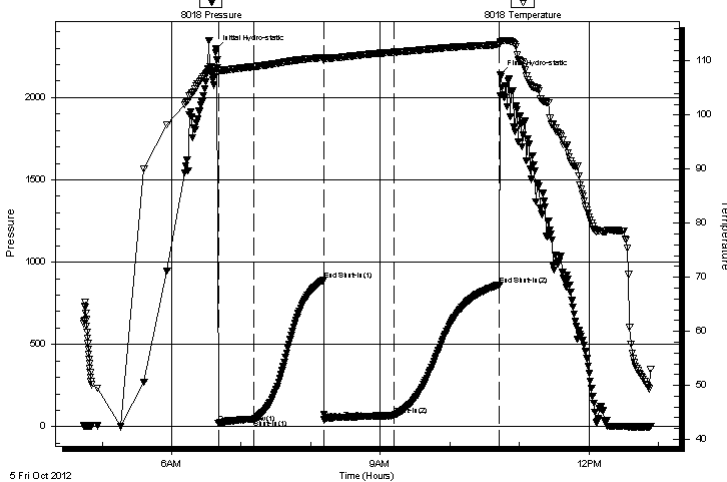
## Serial #: 8018

Inside

Press @ Run Depth: 68.12 psig @ 4413.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.10.05 End Date: 2012.10.05 Last Calib.: 2012.10.05  
Start Time: 04:44:05 End Time: 12:53:14 Time On Btm: 2012.10.05 @ 06:38:00  
Time Off Btm: 2012.10.05 @ 10:43:45

TEST COMMENT: 2" Blow .  
No return.  
5 1/2" Blow .  
No return.

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2294.18	108.59	Initial Hydro-static
3	22.72	107.85	Open To Flow (1)
33	44.77	108.96	Shut-In(1)
93	892.86	110.65	End Shut-In(1)
94	44.79	110.30	Open To Flow (2)
154	68.12	111.63	Shut-In(2)
245	863.20	113.04	End Shut-In(2)
246	2136.49	113.54	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCWME 10g 2o 15w 30m 43emulsion	0.30
60.00	OSM 100m	0.30

\* 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.

**S15-21s-34w Finney,KS**

205 N. Water Suite 300  
Wichita, KS 67202

**JLM #1-15**

Job Ticket: 48460

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2012.10.05 @ 04:44:00

## Tool Information

Drill Pipe:	Length: 4140.00 ft	Diameter: 3.80 inches	Volume: 58.07 bbl	Tool Weight:	2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 267.00 ft	Diameter: 2.25 inches	Volume: 1.31 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 59.38 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.50 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4409.00 ft			Final	63000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	89.00 ft				
Tool Length:	116.50 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			4382.50	
Shut In Tool	5.00			4387.50	
Hydraulic tool	5.00			4392.50	
Jars	5.00			4397.50	
Safety Joint	2.50			4400.00	
Packer	5.00			4405.00	27.50 Bottom Of Top Packer
Packer	4.00			4409.00	
Stubb	1.00			4410.00	
Perforations	3.00			4413.00	
Recorder	0.00	8018	Inside	4413.00	
Recorder	0.00	6751	Outside	4413.00	
Perforations	18.00			4431.00	
Change Over Sub	1.00			4432.00	
Drill Pipe	62.00			4494.00	
Change Over Sub	1.00			4495.00	
Bullnose	3.00			4498.00	89.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>116.50</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**S15-21s-34w Finney,KS**

205 N. Water Suite 300  
Wichita, KS 67202

**JLM #1-15**

Job Ticket: 48460

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2012.10.05 @ 04:44:00

## 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:

29000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.95 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCWME 10g 2o 15w 30m 43emulsion	0.295
60.00	OSM 100m	0.295

Total Length: 120.00 ft      Total Volume: 0.590 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

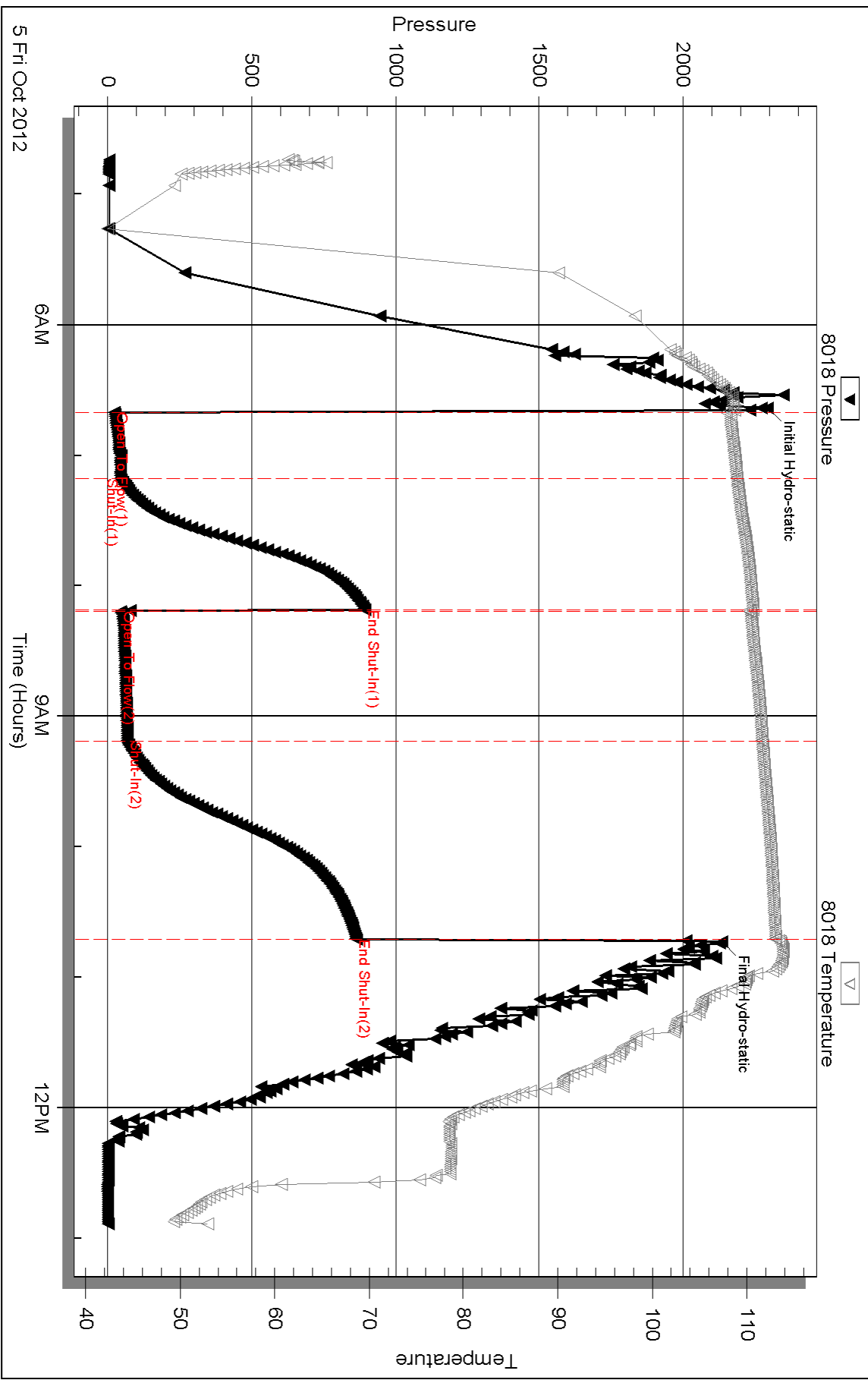
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .363 @ 46 Degrees F = 29000 PPM

# Pressure vs. Time

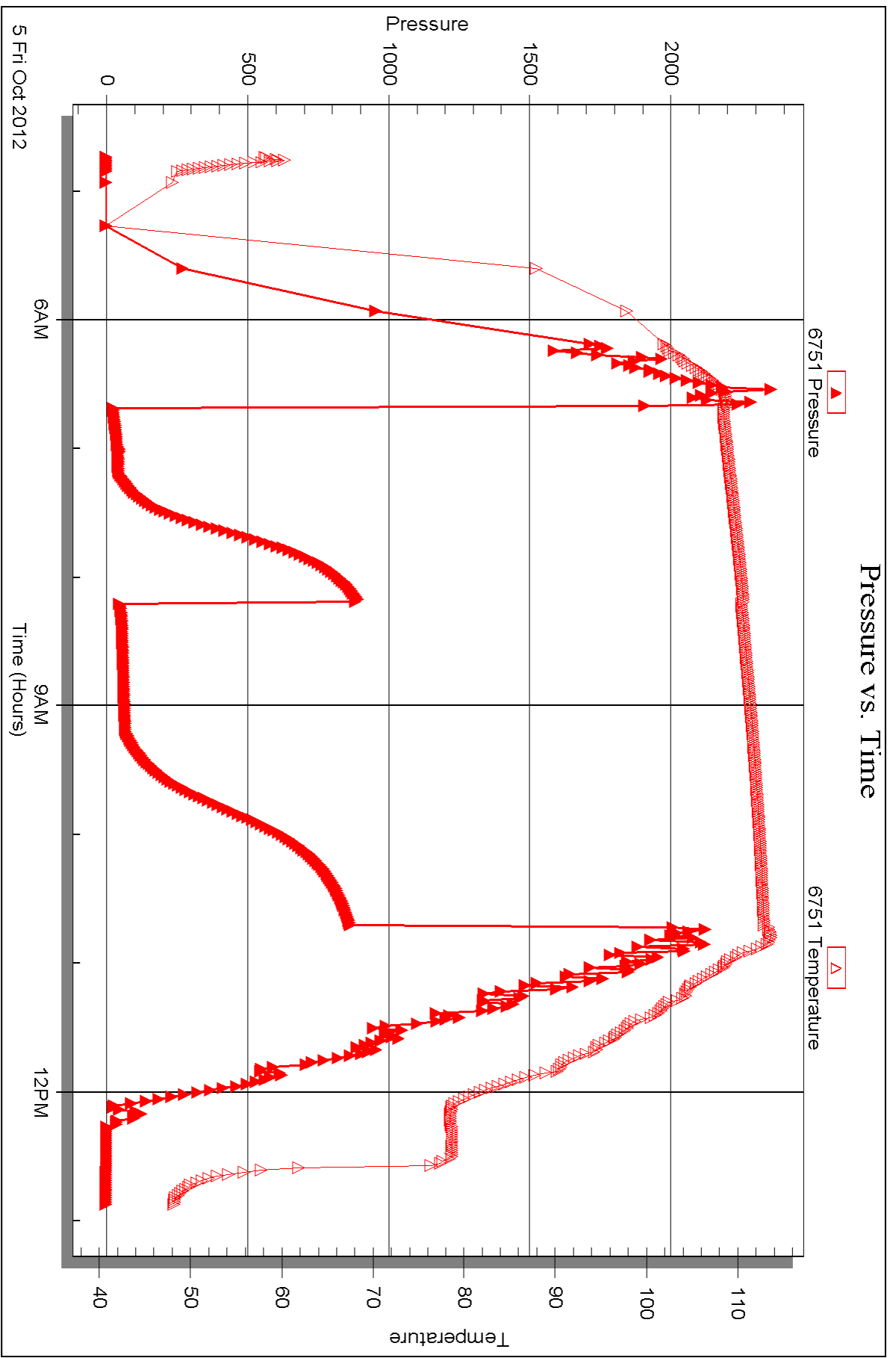


Serial #: 6751

Outside Murfin Drilling Co.

JLM #1-15

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 48460

Printed: 2012.10.09 @ 10:08:33



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

205 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

**JLM #1-15**

**S15-21s-34w Finney,KS**

Start Date: 2012.10.06 @ 09:37:00

End Date: 2012.10.06 @ 16:51:30

Job Ticket #: 48461                      DST #: 3

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

Printed: 2012.10.09 @ 10:07:48



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
205 N. Water Suite 300  
Wichita, KS 67202  
ATTN: Jeff Christian

**S15-21s-34w Finney,KS**

**JLM #1-15**

Job Ticket: 48461

**DST#: 3**

Test Start: 2012.10.06 @ 09:37:00

## GENERAL INFORMATION:

Formation: **Atoka - Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:42:45

Time Test Ended: 16:51:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

**Interval: 4597.00 ft (KB) To 4690.00 ft (KB) (TVD)**

Reference Elevations: 2975.00 ft (KB)

Total Depth: 4690.00 ft (KB) (TVD)

2964.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8018**

**Inside**

Press @ Run Depth: 132.88 psig @ 4599.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.06

End Date:

2012.10.06

Last Calib.:

2012.10.06

Start Time: 09:37:05

End Time:

16:51:29

Time On Btm:

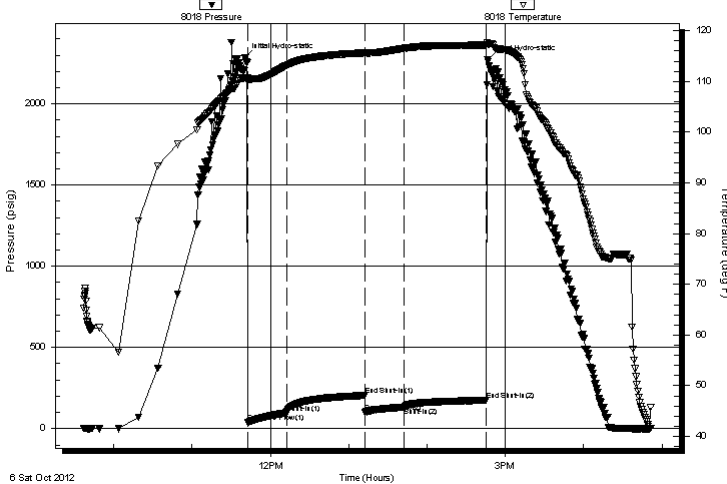
2012.10.06 @ 11:40:45

Time Off Btm:

2012.10.06 @ 14:46:30

**TEST COMMENT:** 6" Blow . Tool slid one foot  
No return.  
3/4" Blow .  
No return.

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2282.78	110.70	Initial Hydro-static
2	36.89	110.16	Open To Flow (1)
32	97.49	113.12	Shut-In(1)
92	204.93	115.65	End Shut-In(1)
92	101.91	115.59	Open To Flow (2)
122	132.88	116.54	Shut-In(2)
185	174.96	117.17	End Shut-In(2)
186	2271.31	117.33	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
237.00	OSMW 45m 55w	1.17

## 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.

**S15-21s-34w Finney,KS**

205 N. Water Suite 300  
Wichita, KS 67202

**JLM #1-15**

Job Ticket: 48461

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2012.10.06 @ 09:37:00

## Tool Information

Drill Pipe:	Length: 4327.00 ft	Diameter: 3.80 inches	Volume: 60.70 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 267.00 ft	Diameter: 2.25 inches	Volume: 1.31 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 62.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.50 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4597.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	93.00 ft			
Tool Length:	120.50 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			4570.50	
Shut In Tool	5.00			4575.50	
Hydraulic tool	5.00			4580.50	
Jars	5.00			4585.50	
Safety Joint	2.50			4588.00	
Packer	5.00			4593.00	27.50 Bottom Of Top Packer
Packer	4.00			4597.00	
Stubb	1.00			4598.00	
Perforations	1.00			4599.00	
Recorder	0.00	8018	Inside	4599.00	
Recorder	0.00	6751	Outside	4599.00	
Outside	24.00			4623.00	
Change Over Sub	1.00			4624.00	
Drill Pipe	62.00			4686.00	
Change Over Sub	1.00			4687.00	
Bullnose	3.00			4690.00	93.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>120.50</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**S15-21s-34w Finney,KS**

205 N. Water Suite 300  
Wichita, KS 67202

**JLM #1-15**

Job Ticket: 48461

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2012.10.06 @ 09:37:00

## 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: 115000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.56 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
237.00	OSMW 45m 55w	1.166

Total Length: 237.00 ft      Total Volume: 1.166 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

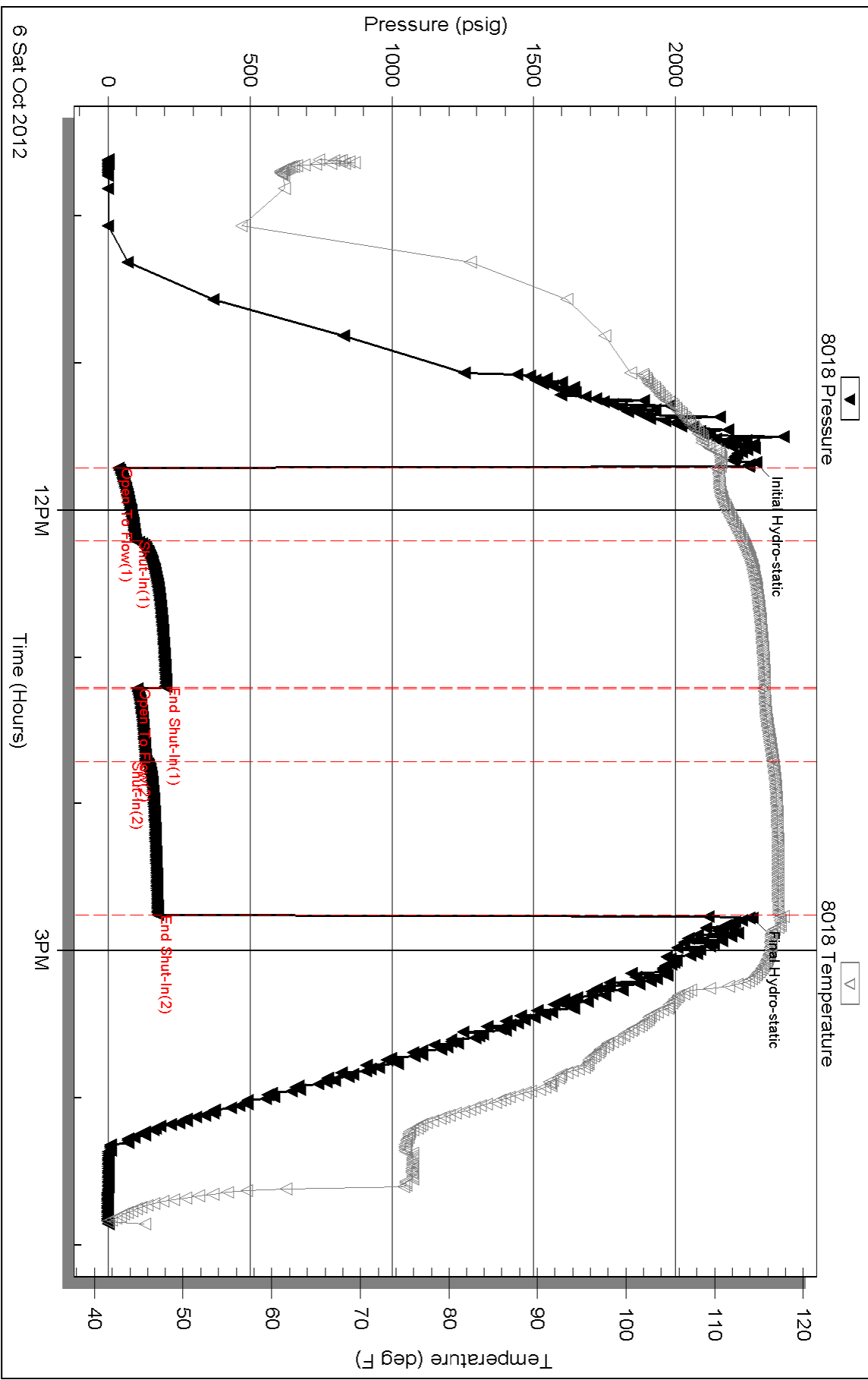
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .132 @ 38 Degrees F = 115,000 PPM

### Pressure vs. Time

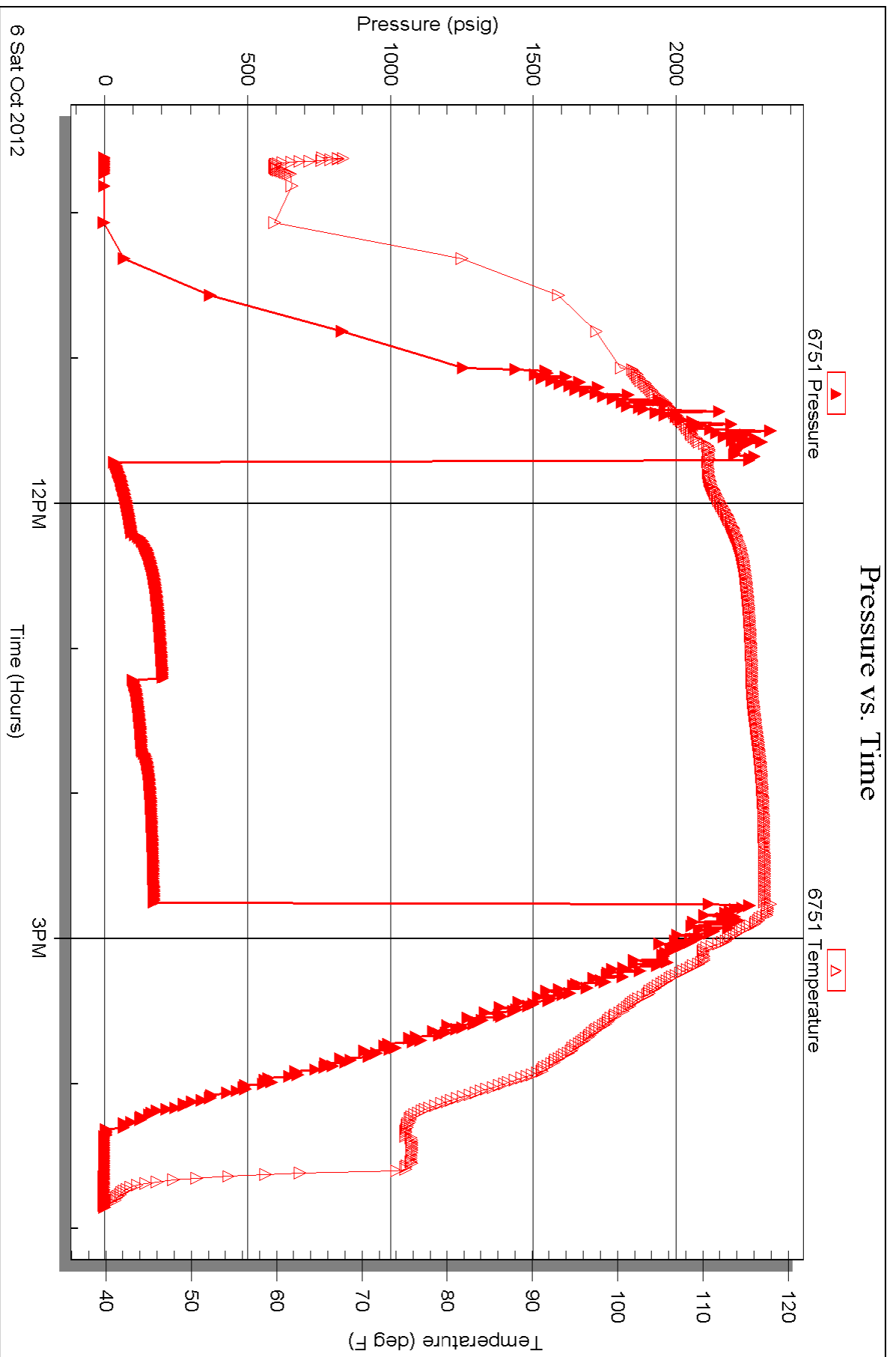


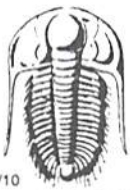
Serial #: 6751

Outside Murfin Drilling Co.

JLM #1-15

DST Test Number: 3





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48459

Well Name & No. JLM #1-15 Test No. 1 Date 10-4-12  
 Company Murfin Drilling Co. Elevation 2975 KB 2964 GL  
 Address 250 N. Water St. 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig MDC #21  
 Location: Sec. 15 Twp. 21s Rge. 34w Co. Finney State Ks

Interval Tested 4342 4400 Zone Tested Marmaton  
 Anchor Length 58 Drill Pipe Run 4079 Mud Wt. 9.2  
 Top Packer Depth 4338 Drill Collars Run 267 Vis 54  
 Bottom Packer Depth 4342 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4400 Chlorides 2000 ppm System LCM 5#  
 Blow Description B.O.B.C. 1 1/2" Blow  
No return  
1/4" Blow  
No return

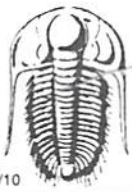
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>90</u>	Feet of <u>SOcm</u>	%gas	<u>1</u> %oil	%water	<u>99</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 90 BHT 113 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2198</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>8:15</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>8:54</u>
(C) First Final Flow <u>53</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>11:03</u>
(D) Initial Shut-In <u>924</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>14:05</u>
(E) Second Initial Flow <u>45</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:06</u>
(F) Second Final Flow <u>92</u>	<input checked="" type="checkbox"/> Mileage <u>50RT 77<sup>50</sup></u>	Comments
(G) Final Shut-In <u>899</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2142</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1652.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1652.50</u>	

Approved By Jeff Christian 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.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48460

Well Name & No. JLM #15 Test No. 2 Date 10-5-12  
 Company Murfin Drilling Co. Elevation 2975 KB 2964 GL  
 Address 250 N. Water Ste. 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig MDC #21  
 Location: Sec. 15 Twp. 21s Rge. 34w Co. Finney State KS

Interval Tested 4409-4498 Zone Tested Pawnee - Fr. Scott - Cherokee  
 Anchor Length 89 Drill Pipe Run 4140 Mud Wt. 9.3  
 Top Packer Depth 4405 Drill Collars Run 267 Vis 59  
 Bottom Packer Depth 4409 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4498 Chlorides 2200 ppm System LCM 5<sup>th</sup>  
 Blow Description 2" Blow  
No return.  
5 1/2" Blow  
No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>60</u>	Feet of <u>OSM</u>				
Rec <u>60</u>	Feet of <u>GOCWME</u>	<u>43% emulsion 10</u>	<u>2</u>	<u>15</u>	<u>30</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 120 BHT 113 Gravity - API RW .363 @ 46 ° F Chlorides 29,000 ppm

(A) Initial Hydrostatic <u>2294</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>4:40</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>4:44</u>
(C) First Final Flow <u>45</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>6:40</u>
(D) Initial Shut-In <u>893</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>10:43</u>
(E) Second Initial Flow <u>45</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>12:53</u>
(F) Second Final Flow <u>68</u>	<input checked="" type="checkbox"/> Mileage <u>SORT</u> <u>77.50</u>	Comments
(G) Final Shut-In <u>863</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2136</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Open <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Initial Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1652.50</u>
Final Flow <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
Final Shut-In <u>90</u>	Sub Total <u>1652.50</u>	

Approved By Jeff Chrt 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 of 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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48461

Well Name & No. JLM #1-15 Test No. 3 Date 10-6-12  
 Company Murfin Drilling Co. Elevation 2975 KB 2964 GL  
 Address 250 N. Water St. 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig MDC #21  
 Location: Sec. 15 Twp. 21s Rge. 34w Co. Finney State KS

Interval Tested 4597-4690 Zone Tested Aroka-Morrow  
 Anchor Length 93 Drill Pipe Run 4327 Mud Wt. 9.1  
 Top Packer Depth 4593 Drill Collars Run 267 Vis 54  
 Bottom Packer Depth 4597 Wt. Pipe Run 0 WL 9.6  
 Total Depth 4690 Chlorides 3700 ppm System LCM 5"  
 Blow Description 6" Blow. Tool slid a foot.  
No return.  
3/4" Blow.  
No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>237</u>	Feet of <u>OS MW</u>			<u>55</u>	<u>45</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 237 BHT 117 Gravity - API RW .132 @ 38 °F Chlorides 115,000 ppm

(A) Initial Hydrostatic <u>2283</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>9:15</u>
(B) First Initial Flow <u>37</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>9:37</u>
(C) First Final Flow <u>97</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>11:43</u>
(D) Initial Shut-In <u>205</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>14:46</u>
(E) Second Initial Flow <u>102</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:52</u>
(F) Second Final Flow <u>133</u>	<input checked="" type="checkbox"/> Mileage <u>50RT</u> 77.50	Comments <u>loaded tools 10/7 19:15</u>
(G) Final Shut-In <u>175</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2271</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60 30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>800</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby 1d 2.25hrs	Total <u>2452.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1652.50</u>	

Approved By [Signature] Our Representative Chuck Smith

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