



## DRILL STEM TEST REPORT

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

250 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Lohoefener #1-18**

#### **18-2s-29w Decatur,KS**

Start Date: 2012.05.30 @ 13:13:00

End Date: 2012.05.30 @ 20:16:00

Job Ticket #: 46173                      DST #: 1

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

Printed: 2012.06.04 @ 16:31:52



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

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

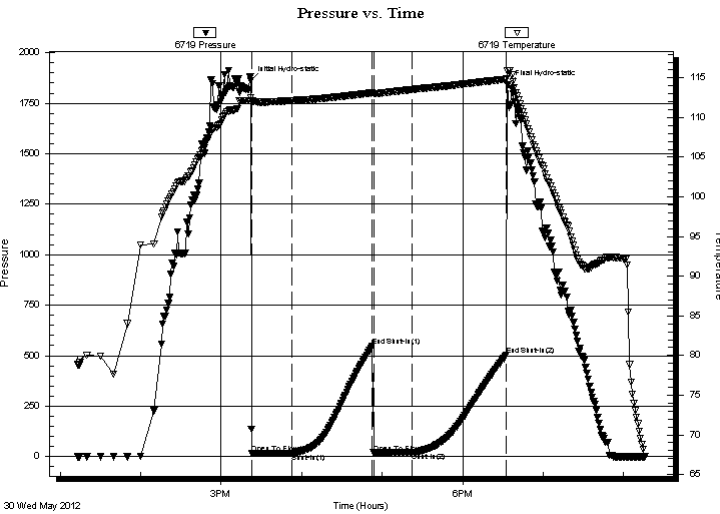
**18-2s-29w Decatur, KS**  
**Lohofener #1-18**  
Job Ticket: 46173      **DST#: 1**  
Test Start: 2012.05.30 @ 13:13:00

## GENERAL INFORMATION:

Formation: **LKC "A"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 15:23:00  
Time Test Ended: 20:16:00  
Interval: **3751.00 ft (KB) To 3802.00 ft (KB) (TVD)**  
Total Depth: 3802.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: James Winder  
Unit No: 57  
Reference Elevations: 2786.00 ft (KB)  
2781.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 6719      Inside**  
Press @ Run Depth: 20.31 psig @ 3752.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.05.30      End Date: 2012.05.30      Last Calib.: 2012.05.30  
Start Time: 13:13:05      End Time: 20:15:59      Time On Btm: 2012.05.30 @ 15:22:00  
Time Off Btm: 2012.05.30 @ 18:33:30

**TEST COMMENT:** 30 - IF: Surface blow, dead at 9 1/2 min.  
60 - IS: No blow back  
30 - FF: No blow  
60 - FS: No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1861.90	112.48	Initial Hydro-static
1	15.81	112.16	Open To Flow (1)
31	18.12	112.14	Shut-In(1)
91	545.71	113.11	End Shut-In(1)
92	18.78	112.97	Open To Flow (2)
121	20.31	113.54	Shut-In(2)
191	502.15	114.85	End Shut-In(2)
192	1842.21	115.88	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud w /trace of Oil 100%m	0.01

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

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

**18-2s-29w Decatur,KS**  
**Lohofener #1-18**  
Job Ticket: 46173      **DST#: 1**  
Test Start: 2012.05.30 @ 13:13:00

**Tool Information**

Drill Pipe:	Length: 3568.00 ft	Diameter: 3.80 inches	Volume: 50.05 bbl	Tool Weight: 2500.00 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: 187.00 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 50.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3751.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	79.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Tool slid 6' to bottom before opening - No mud loss

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3728.00	
Hydraulic tool	5.00			3733.00	
Jars	5.00			3738.00	
Safety Joint	3.00			3741.00	
Packer	5.00			3746.00	28.00      Bottom Of Top Packer
Packer	5.00			3751.00	
Stubb	1.00			3752.00	
Recorder	0.00	6719	Inside	3752.00	
Recorder	0.00	8320	Outside	3752.00	
Perforations	10.00			3762.00	
Blank Spacing	33.00			3795.00	
Perforations	4.00			3799.00	
Bullnose	3.00			3802.00	51.00      Bottom Packers & Anchor

**Total Tool Length: 79.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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

**18-2s-29w Decatur,KS**  
**Lohofener #1-18**  
Job Ticket: 46173      **DST#: 1**  
Test Start: 2012.05.30 @ 13:13:00

## Mud and Cushion Information

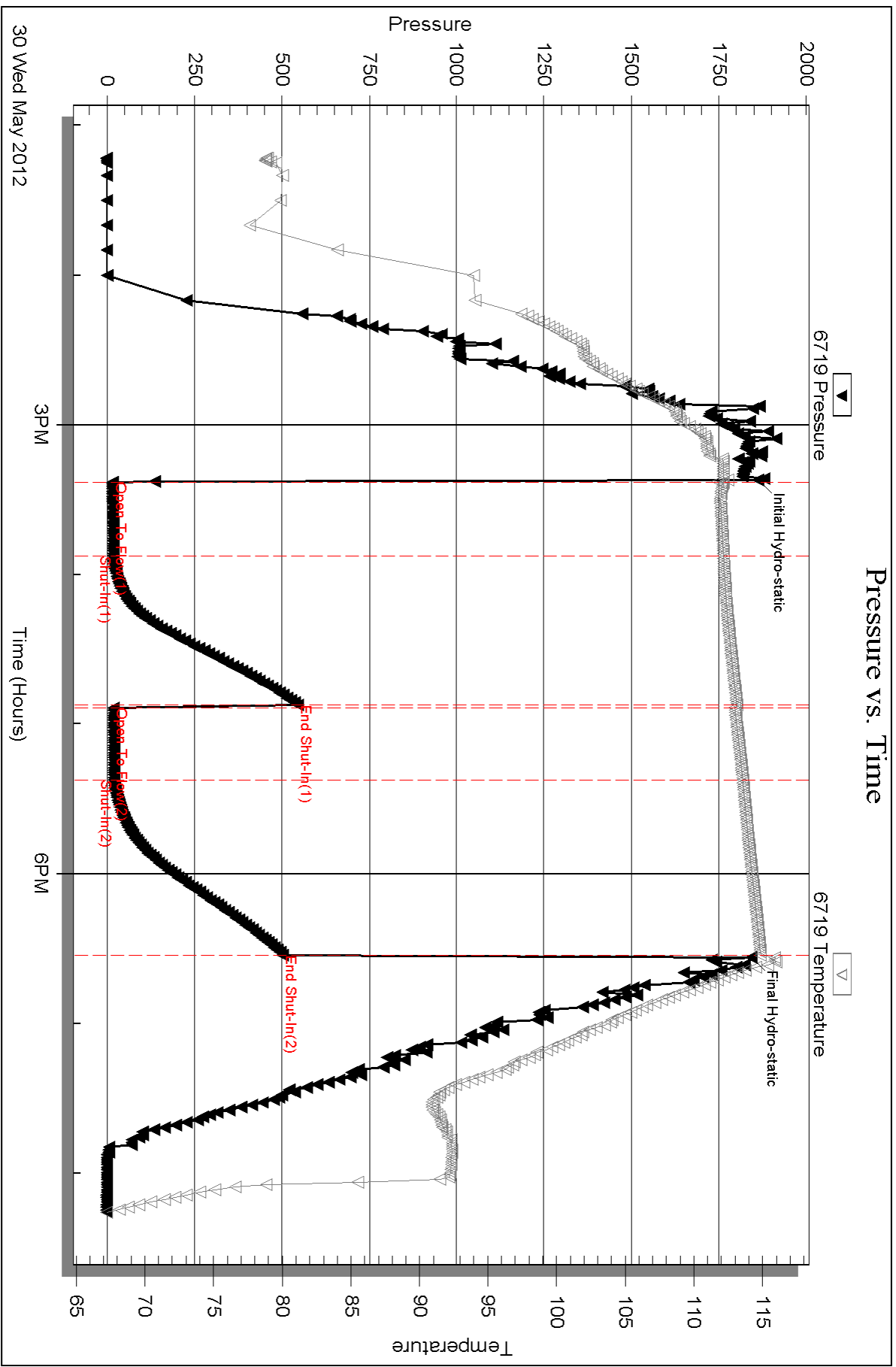
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.18 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 2.00 inches			

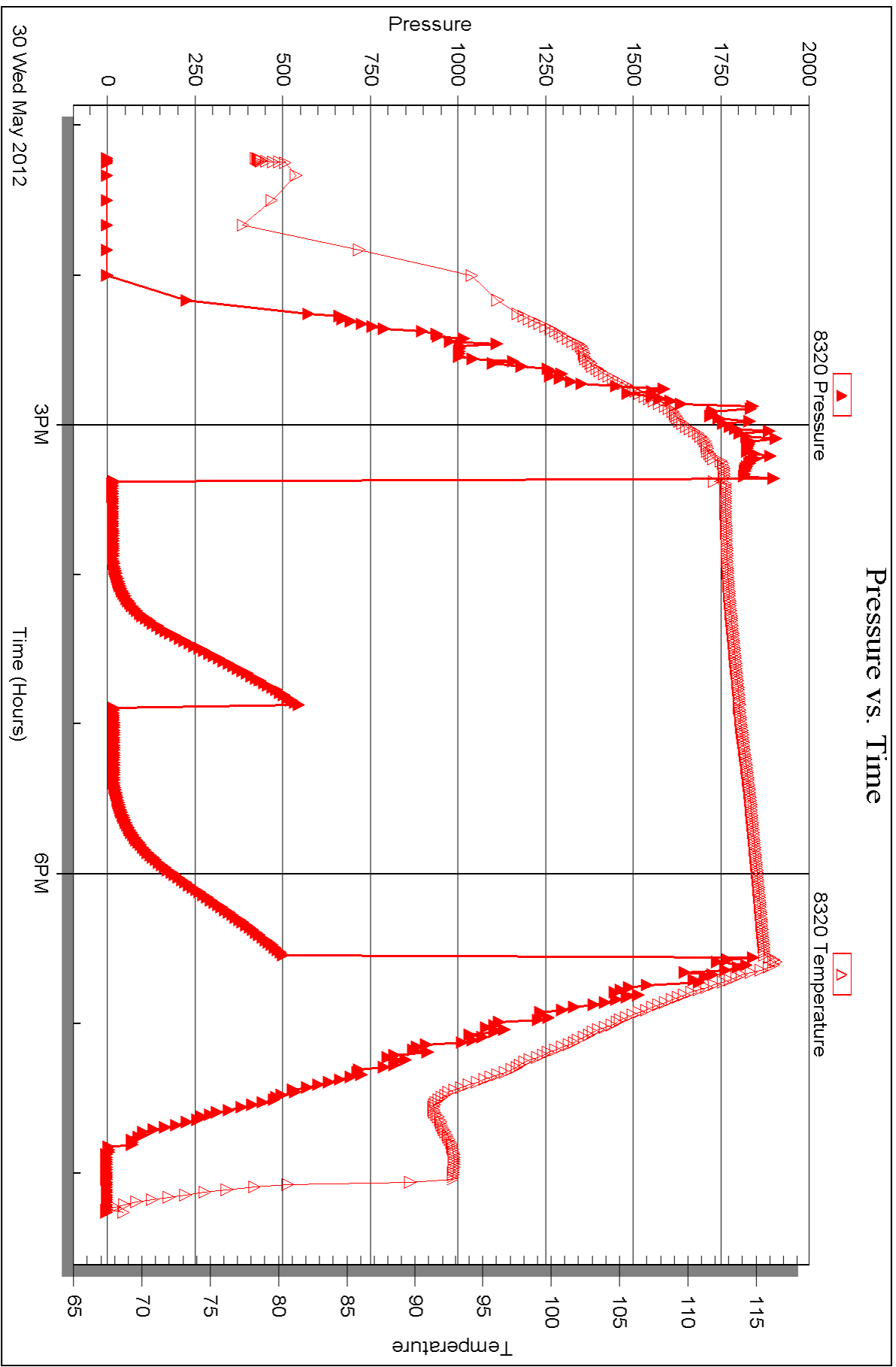
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud w /trace of Oil 100%m	0.010

Total Length: 2.00 ft      Total Volume: 0.010 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: LCM = 6#







## DRILL STEM TEST REPORT

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

250 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Lohoefener #1-18**

### **18-2s-29w Decatur,KS**

Start Date: 2012.05.31 @ 07:16:00

End Date: 2012.05.31 @ 15:15:30

Job Ticket #: 46174                      DST #: 2

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

Printed: 2012.06.04 @ 16:31:17









**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

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

**18-2s-29w Decatur,KS**  
**Lohofener #1-18**  
Job Ticket: 46174      **DST#: 2**  
Test Start: 2012.05.31 @ 07:16:00

**Tool Information**

Drill Pipe:	Length: 3601.00 ft	Diameter: 3.80 inches	Volume: 50.51 bbl	Tool Weight: 2500.00 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: 187.00 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 51.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3802.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	88.00 ft			
Tool Length:	116.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Jars & Joint not marked on Geo's orders - Tool pusher told me to run them on all test

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3779.00	
Hydraulic tool	5.00			3784.00	
Jars	5.00			3789.00	
Safety Joint	3.00			3792.00	
Packer	5.00			3797.00	28.00      Bottom Of Top Packer
Packer	5.00			3802.00	
Stubb	1.00			3803.00	
Recorder	0.00	6719	Inside	3803.00	
Recorder	0.00	8320	Outside	3803.00	
Perforations	18.00			3821.00	
Blank Spacing	64.00			3885.00	
Perforations	2.00			3887.00	
Bullnose	3.00			3890.00	88.00      Bottom Packers & Anchor

**Total Tool Length: 116.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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

**18-2s-29w Decatur,KS**  
**Lohofener #1-18**  
Job Ticket: 46174      **DST#: 2**  
Test Start: 2012.05.31 @ 07:16:00

## 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:	36000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	MCW w/trace oil 68%w , 32%m	0.615
125.00	WCM w/trace oil 74%m, 26%w	1.189
62.00	Mud w/trace oil 100%m	0.870

Total Length: 312.00 ft      Total Volume: 2.674 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: LCM = 5#  
                                  RW = .201 ohms @ 71 deg F

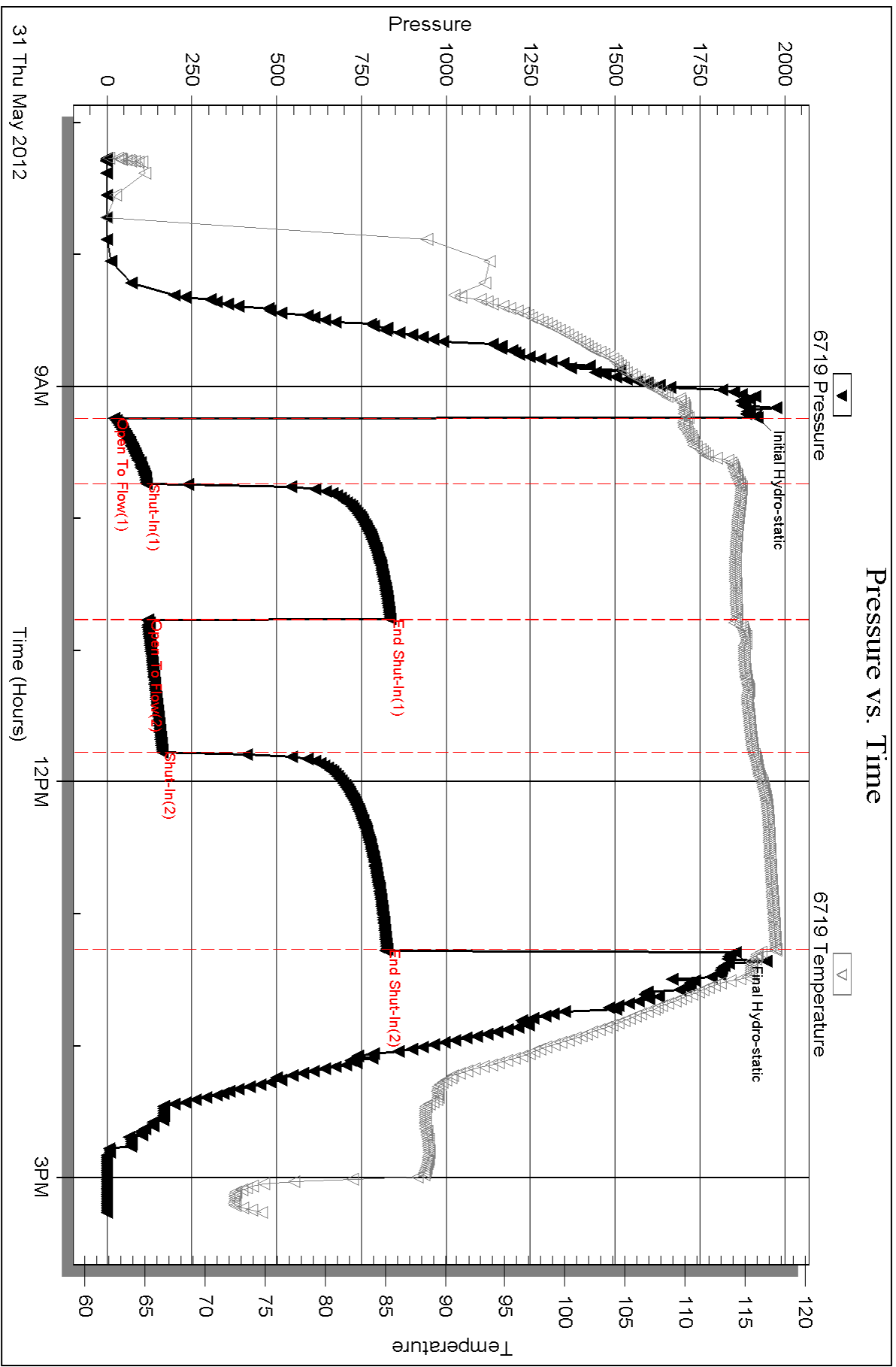
Serial #: 6719

Inside

Murfin Drilling Co. Inc.

Lohofener #1-18

DST Test Number: 2

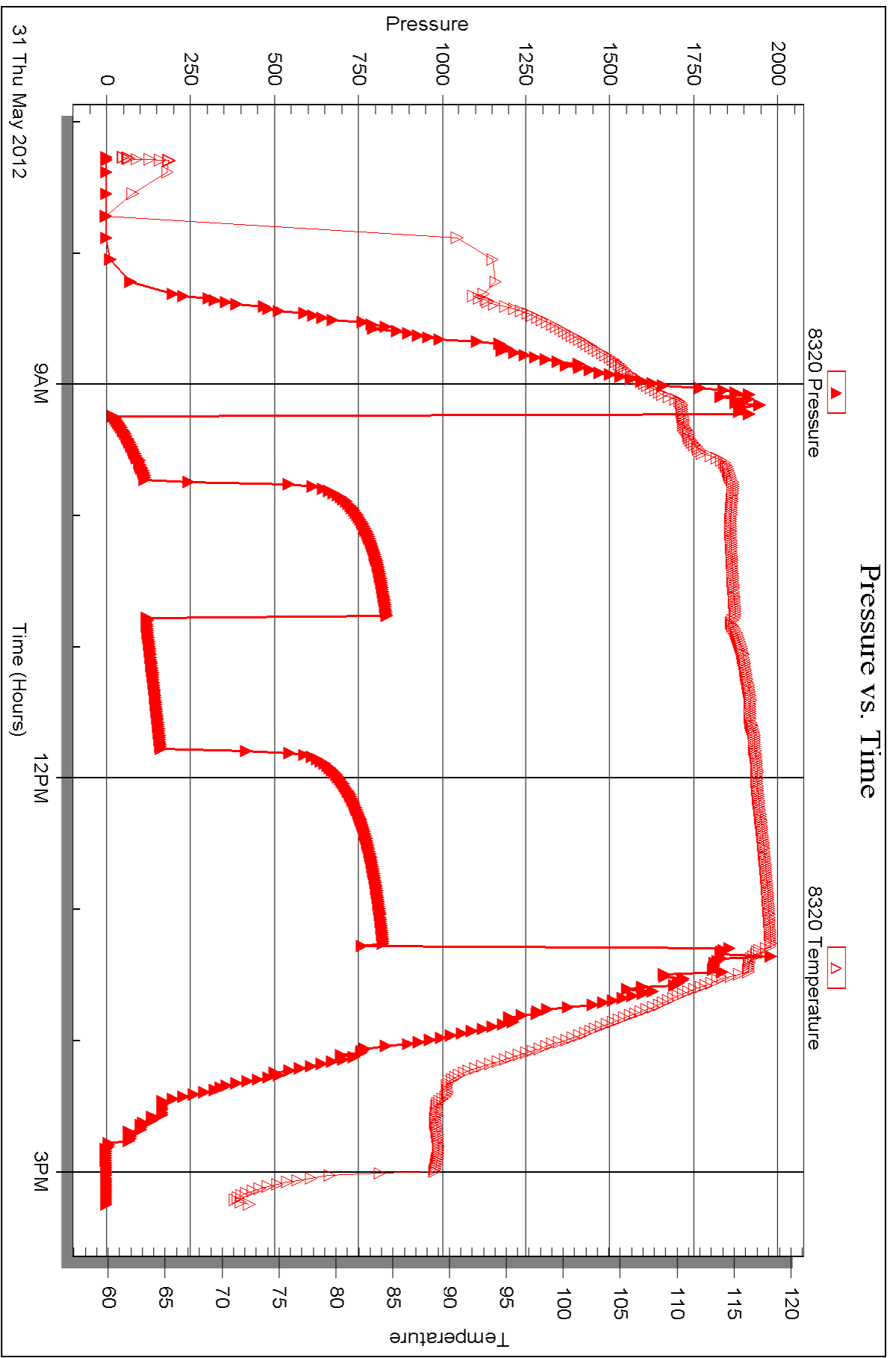


Serial #: 8320

Outside Murfin Drilling Co. Inc.

Lohofener #1-18

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 46174

Printed: 2012.06.04 @ 16:31:20



## DRILL STEM TEST REPORT

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

250 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Lohoefener #1-18**

#### **18-2s-29w Decatur,KS**

Start Date: 2012.06.01 @ 03:04:00

End Date: 2012.06.01 @ 11:50:00

Job Ticket #: 46175                      DST #: 3

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

Printed: 2012.06.04 @ 16:30:35



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

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

**18-2s-29w Decatur, KS**

**Lohofener #1-18**

Job Ticket: 46175

**DST#: 3**

Test Start: 2012.06.01 @ 03:04:00

### GENERAL INFORMATION:

Formation: **LKC "H - J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:02:30  
 Time Test Ended: 11:50:00  
 Interval: **3890.00 ft (KB) To 3955.00 ft (KB) (TVD)**  
 Total Depth: 3955.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 57  
 Reference Elevations: 2786.00 ft (KB)  
 2781.00 ft (CF)  
 KB to GR/CF: 5.00 ft

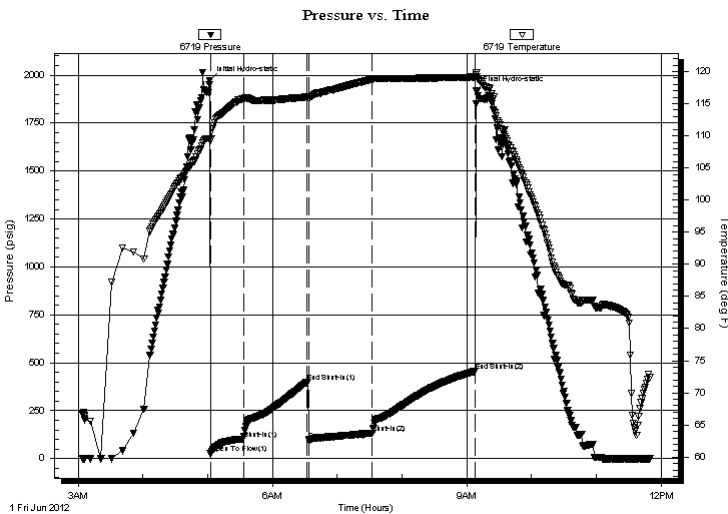
### Serial #: 6719

Inside

Press @ Run Depth: 133.91 psig @ 3891.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.06.01 End Date: 2012.06.01 Last Calib.: 2012.06.01  
 Start Time: 03:04:05 End Time: 11:50:00 Time On Btm: 2012.06.01 @ 05:02:00  
 Time Off Btm: 2012.06.01 @ 09:09:00

TEST COMMENT: 30 - IF: Blow built to BOB (11") in 8 1/2 min.  
 60 - IS: Bled off, Blow back built to 1 3/4"  
 60 - FF: Blow built to BOB in 5 min.  
 90 - FS: Bled off, Blow back built to 3 1/2"

### PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1972.44	109.47	Initial Hydro-static
1	25.60	109.32	Open To Flow (1)
31	103.53	115.76	Shut-In(1)
90	399.27	116.02	End Shut-In(1)
92	94.86	115.93	Open To Flow (2)
151	133.91	118.79	Shut-In(2)
246	456.36	119.14	End Shut-In(2)
247	1921.22	119.86	Final Hydro-static

### Recovery

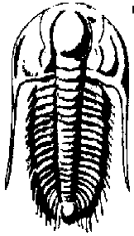
Length (ft)	Description	Volume (bbl)
63.00	GMCO 46%o, 28%g, 26%m	0.31
124.00	GOCM 56%m, 29%o, 15%g	0.61
70.00	GOM 53%m, 36%o, 11%g	0.98
55.00	CGO 84%o, 15%g, 1%m	0.77
0.00	GIP= ?? couldn't smell over hulls odor	0.00

\* Recovery from multiple tests

### Gas Rates

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





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

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

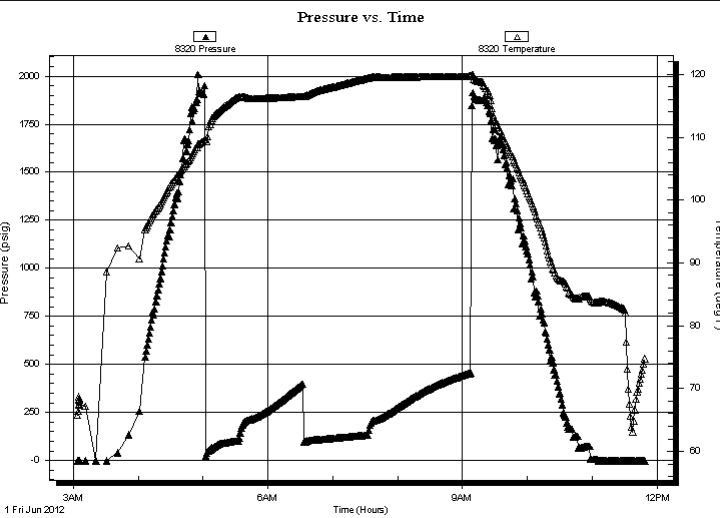
**18-2s-29w Decatur, KS**  
**Lohofener #1-18**  
Job Ticket: 46175 **DST#: 3**  
Test Start: 2012.06.01 @ 03:04:00

## GENERAL INFORMATION:

Formation:	<b>LKC "H - J"</b>				
Deviated:	No	Whipstock:		ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened:	05:02:30				Tester: James Winder
Time Test Ended:	11:50:00				Unit No: 57
<b>Interval:</b>	<b>3890.00 ft (KB) To</b>	<b>3955.00 ft (KB) (TVD)</b>			Reference Elevations: 2786.00 ft (KB)
Total Depth:	3955.00 ft (KB)	(TVD)			2781.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition:	Fair		KB to GR/CF: 5.00 ft

<b>Serial #: 8320</b>	<b>Outside</b>				
Press @ Run Depth:	psig @	3891.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2012.06.01	End Date:	2012.06.01	Last Calib.:	2012.06.01
Start Time:	03:04:05	End Time:	11:49:00	Time On Btm:	
				Time Off Btm:	

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") in 8 1/2 min.  
60 - IS: Bled off, Blow back built to 1 3/4"  
60 - FF: Blow built to BOB in 5 min.  
90 - FS: Bled off, Blow back built to 3 1/2"



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	GMCO 46%o, 28%g, 26%m	0.31
124.00	GOCM 56%m, 29%o, 15%g	0.61
70.00	GOM 53%m, 36%o, 11%g	0.98
55.00	CGO 84%o, 15%g, 1%m	0.77
0.00	GIP= ?? couldn't smell over hulls odor	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

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

**18-2s-29w Decatur,KS**  
**Lohofener #1-18**  
Job Ticket: 46175      **DST#: 3**  
Test Start: 2012.06.01 @ 03:04:00

**Tool Information**

Drill Pipe:	Length: 3694.00 ft	Diameter: 3.80 inches	Volume: 51.82 bbl	Tool Weight: 2500.00 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: 187.00 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 52.74 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3890.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	65.00 ft			
Tool Length:	93.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Tool slid 2' to bottom before opening - No mud loss

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			3867.00	
Hydraulic tool	5.00			3872.00	
Jars	5.00			3877.00	
Safety Joint	3.00			3880.00	
Packer	5.00			3885.00	28.00      Bottom Of Top Packer
Packer	5.00			3890.00	
Stubb	1.00			3891.00	
Recorder	0.00	6719	Inside	3891.00	
Recorder	0.00	8320	Outside	3891.00	
Perforations	25.00			3916.00	
Blank Spacing	34.00			3950.00	
Perforations	2.00			3952.00	
Bullnose	3.00			3955.00	65.00      Bottom Packers & Anchor

**Total Tool Length: 93.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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

**18-2s-29w Decatur,KS**  
**Lohofener #1-18**  
Job Ticket: 46175      **DST#: 3**  
Test Start: 2012.06.01 @ 03:04:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 36.4 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.59 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1500.00 ppm		
Filter Cake: 2.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	GMCO 46%o, 28%g, 26%m	0.310
124.00	GOCM 56%m, 29%o, 15%g	0.610
70.00	GOM 53%m, 36%o, 11%g	0.982
55.00	CGO 84%o, 15%g, 1%m	0.772
0.00	GIP= ?? couldn't smell over hulls odor	0.000

Total Length: 312.00 ft      Total Volume: 2.674 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: LCM = 6# Gravity = 37.2 api @ 68 deg F  
Corrected Gravity = 36.4 api

Serial #: 6719

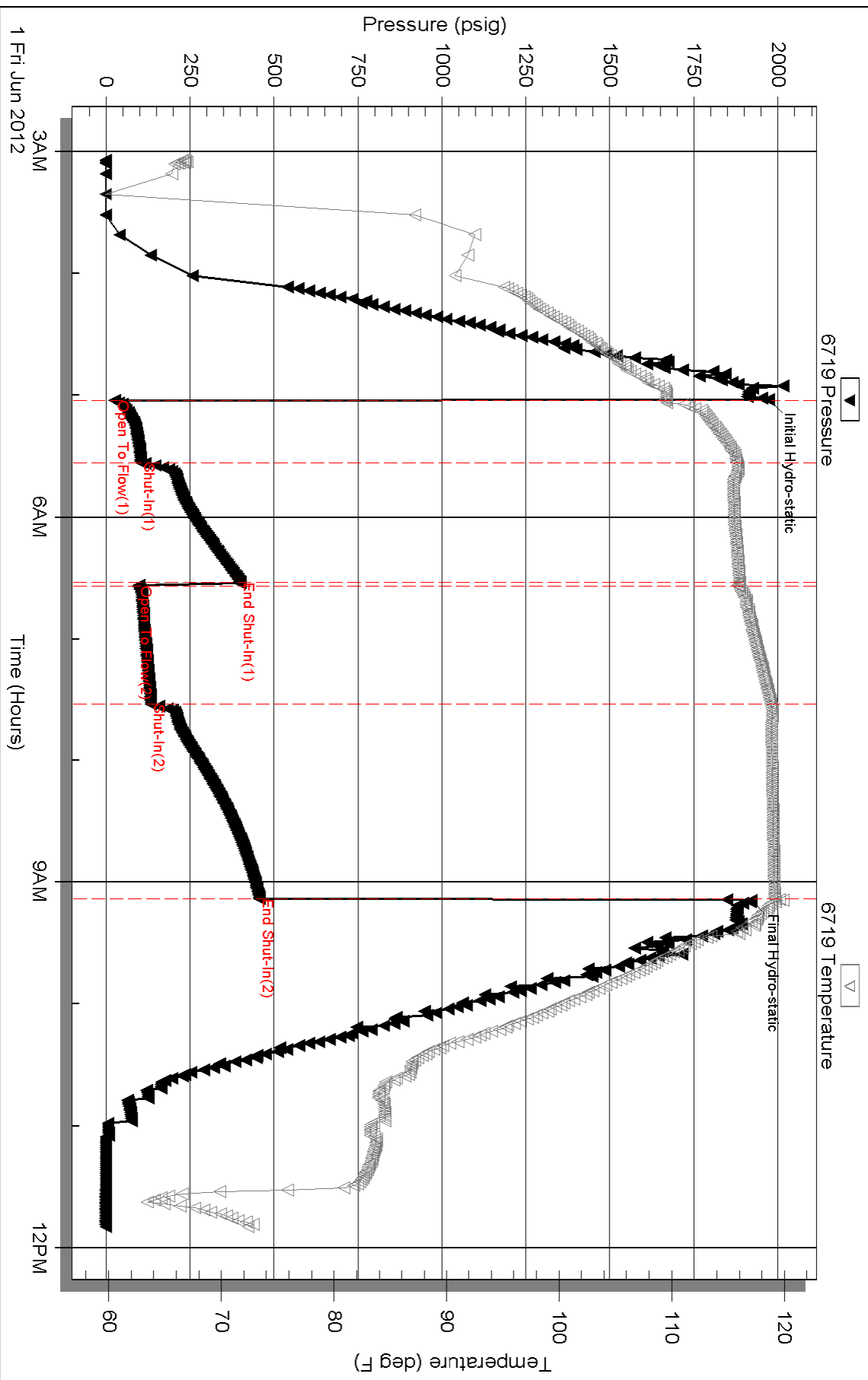
Inside

Murfin Drilling Co. Inc.

Lohoefer #1-18

DST Test Number: 3

# Pressure vs. Time

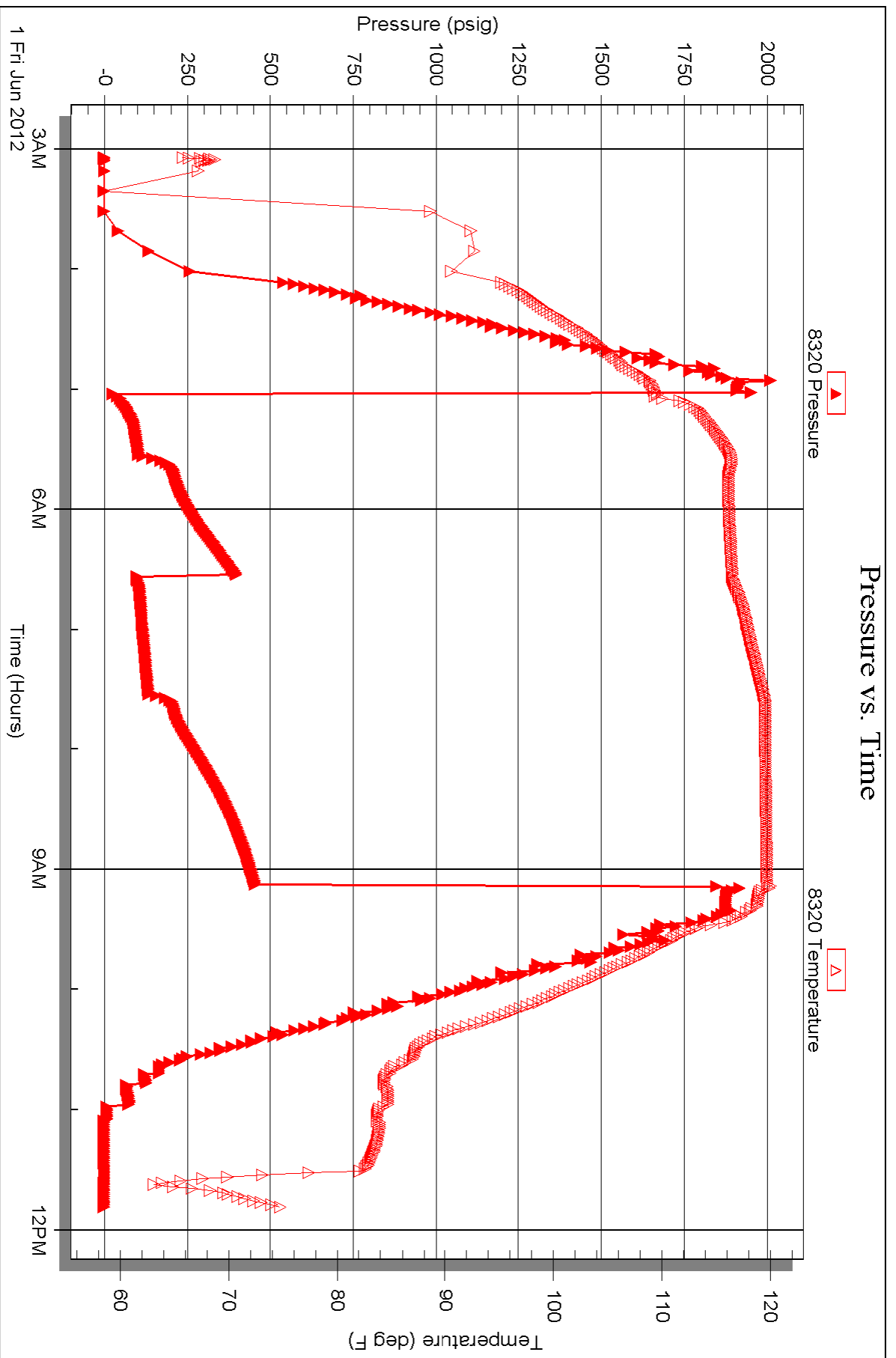


Serial #: 8320

Outside Murfin Drilling Co. Inc.

Lohofener #1-18

DST Test Number: 3





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 46173

4/10

Well Name & No. Lohofener #1-18 Test No. 1 Date 5-30-12  
 Company Murfin Drilling Co. Inc. Elevation 2786 KB 2781 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 18 Twp. 2S Rge. 29W Co. Decatur State Ks

Interval Tested 3751-3802 Zone Tested LKC "A"  
 Anchor Length 51 Drill Pipe Run 3568 Mud Wt. 9.0  
 Top Packer Depth 3746 Drill Collars Run ~~186~~ 187 Vis 58  
 Bottom Packer Depth 3751 Wt. Pipe Run - WL 5.2  
 Total Depth 3802 Chlorides 1500 ppm System LCM 6

Blow Description IF: Surface blow, dead at 9 1/2 min.  
ISI: No blowback  
FF: No blow  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>Mud w/trace of oil</u>	<u>trace</u>	<u>-</u>	<u>100</u>	<u>-</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 2 BHT 115 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1862</u>	<input type="checkbox"/> Test <u>*</u> 1150	T-On Location <u>12:20</u>
(B) First Initial Flow <u>16</u>	<input type="checkbox"/> Jars <u>*</u> 250	T-Started <u>13:13</u>
(C) First Final Flow <u>18</u>	<input type="checkbox"/> Safety Joint <u>*</u> 75	T-Open <u>15:23</u>
(D) Initial Shut-In <u>546</u>	<input checked="" type="checkbox"/> Circ Sub <u>*NA</u>	T-Pulled <u>18:32</u>
(E) Second Initial Flow <u>19</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>20:10</u>
(F) Second Final Flow <u>20</u>	<input type="checkbox"/> Mileage <u>RT 20</u> 31	Comments <u>Tool slid 6' to</u>
(G) Final Shut-In <u>502</u>	<input checked="" type="checkbox"/> Sampler	<u>bottom before opening</u>
(H) Final Hydrostatic <u>1842</u>	<input checked="" type="checkbox"/> Straddle	<u>Nomud loss</u>

Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer	<input checked="" type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Ruined Packer
Final Flow <u>30</u>	<input checked="" type="checkbox"/> Extra Recorder	<input checked="" type="checkbox"/> Extra Copies
Final Shut-In <u>60</u>	<input checked="" type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input checked="" type="checkbox"/> Accessibility	Total <u>1506</u>
	Sub Total <u>1506</u>	MP/DST Disc't

Approved By [Signature] Our Representative James Winkler

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. 46174

Well Name & No. Lohoefer #1-18 Test No. 2 Date 5-31-12  
 Company Murfin Drilling Co. Inc Elevation 2786 KB 2781 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 18 Twp. 2s Rge. 29w Co. Decatur State KS

Interval Tested 3802 - 3890 Zone Tested LKC "D-G"  
 Anchor Length 88 Drill Pipe Run 3601 Mud Wt. 9.2  
 Top Packer Depth 3797 Drill Collars Run 187 Vis 52  
 Bottom Packer Depth 3802 Wt. Pipe Run - WL 6.0  
 Total Depth 3890 Chlorides 1500 ppm System LCM 5

Blow Description IF: Blow built to 8"  
ISI: Bled off, No blowback  
FF: Blow built to BOB (11") at 60 min.  
FSI: Bled off, No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>mud w/trace of Oil</u>	<u>-</u>	<u>trace</u>	<u>-</u>	<u>100</u>
<u>125</u>	<u>WCM w/trace of Oil</u>	<u>-</u>	<u>trace</u>	<u>26</u>	<u>74</u>
<u>125</u>	<u>MCW w/trace of Oil</u>	<u>-</u>	<u>trace</u>	<u>68</u>	<u>32</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 312 BHT 118 Gravity - API RW .201 @ 71 °F Chlorides 36,000 ppm

(A) Initial Hydrostatic <u>1920</u>	<input type="checkbox"/> Test <u>*</u> 1150	T-On Location <u>6:40</u>
(B) First Initial Flow <u>21</u>	<input type="checkbox"/> Jars <u>*</u> 250	T-Started <u>7:16</u>
(C) First Final Flow <u>116</u>	<input type="checkbox"/> Safety Joint <u>*</u> 75	T-Open <u>9:14</u>
(D) Initial Shut-In <u>834</u>	<input checked="" type="checkbox"/> Circ Sub <u>*NA</u>	T-Pulled <u>13:16</u>
(E) Second Initial Flow <u>121</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out <u>15:10</u>
(F) Second Final Flow <u>162</u>	<input type="checkbox"/> Mileage <u>20RT</u> 31	Comments
(G) Final Shut-In <u>825</u>	<input checked="" type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1856</u>	<input checked="" type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer
	<input checked="" type="checkbox"/> Shale Packer	<input checked="" type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>60</u>	<input checked="" type="checkbox"/> Day Standby	Total <u>1506</u>
Final Shut-In <u>90</u>	<input checked="" type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1506</u>	

Approved By Jeff Christian Our Representative James Winder

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. 46175

4/10

Well Name & No. Lohofener #1-18 Test No. 3 Date 6-1-12  
 Company Murfin Drilling Co. Inc. Elevation 2786 KB 2781 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 18 Twp. 25 Rge. 29W Co. Decatur State KS

Interval Tested 3890-3955 Zone Tested LKC "H-J"  
 Anchor Length 65 Drill Pipe Run 3694 Mud Wt. 9.1  
 Top Packer Depth 3885 Drill Collars Run 187 Vis 56  
 Bottom Packer Depth 3890 Wt. Pipe Run - WL 5.6  
 Total Depth 3955 Chlorides 1500 ppm System LCM 6

Blow Description IF: Blow built to BOB (11") in 8 1/2 min.  
ISI: Bled off, Blowback built to 1 3/4"  
FF: Blow built to BOB in 5 min.  
FSI: Bled off, Blowback built to ~~2 1/2~~ 3 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
55	CGO	15	84	1	
70	GOM	11	36	-	53
124 <del>124</del>	GOCM	15	29	-	56
63	GMCO	28	46	-	26
	GIP-??	<u>couldn't smell any over odor of Halls</u>			

Rec Total 312 BHT 119 Gravity 36.4 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1972  Test 1150 T-On Location 2:50  
 (B) First Initial Flow 26  Jars 250 T-Started 3:04  
 (C) First Final Flow 104  Safety Joint 75 T-Open 5:02  
 (D) Initial Shut-In 399  Circ Sub ANA T-Pulled 9:08  
 (E) Second Initial Flow 95  Hourly Standby \_\_\_\_\_ T-Out 11:45  
 (F) Second Final Flow 134  Mileage 20RT X 2 31 Comments Tool slid 2' to bottom before opening  
 (G) Final Shut-In 456  Sampler \_\_\_\_\_ No mud loss  
 (H) Final Hydrostatic 1921  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 1506  
 Final Flow 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 90 Sub Total 1506

Approved By Jeff Christian Our Representative James Winkler

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.