

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1260822  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1260822



Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Frisbie 'A' 2-6
Doc ID	1260822

All Electric Logs Run

DIL
DUCP
MEL
BHCS





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300  
Wichita KS 67202

ATTN: Chuck Schmaltz

### **Frisbie A #2-6**

#### **6-2s-36w Rawlins,KS**

Start Date: 2015.05.19 @ 13:17:00

End Date: 2015.05.19 @ 22:42:49

Job Ticket #: 62578                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.05.26 @ 14:05:50



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62578

**DST#: 1**

ATTN: Chuck Schmalz

Test Start: 2015.05.19 @ 13:17:00

## GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:19:50

Time Test Ended: 22:42:49

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols

Unit No: 78

**Interval: 4140.00 ft (KB) To 4190.00 ft (KB) (TVD)**

Reference Elevations: 3343.00 ft (KB)

Total Depth: 4190.00 ft (KB) (TVD)

3338.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6752 Inside**

Press@RunDepth: 18.01 psig @ 4141.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.19

End Date:

2015.05.19

Last Calib.:

2015.05.19

Start Time: 13:17:01

End Time:

22:42:49

Time On Btm:

2015.05.19 @ 17:19:40

Time Off Btm:

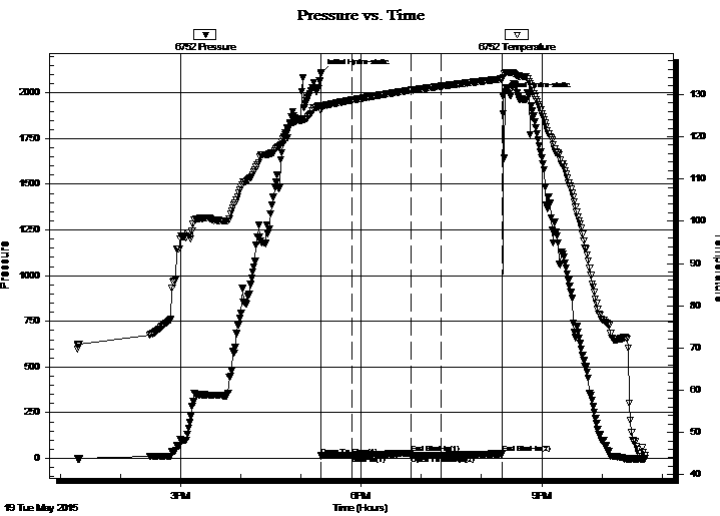
2015.05.19 @ 20:21:09

TEST COMMENT: 30 IF - Surface blow built to 1/2"

60 ISI - No return

30 FF - No blow

60 FSI - No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2104.00	127.43	Initial Hydro-static
1	13.91	126.23	Open To Flow (1)
31	17.30	128.65	Shut-In(1)
90	28.35	131.01	End Shut-In(1)
91	15.85	131.01	Open To Flow (2)
121	18.01	131.98	Shut-In(2)
181	24.68	133.66	End Shut-In(2)
182	1979.41	134.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%M	0.02

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62578

**DST#: 1**

ATTN: Chuck Schmaltz

Test Start: 2015.05.19 @ 13:17:00

## Tool Information

Drill Pipe:	Length: 3947.00 ft	Diameter: 3.80 inches	Volume: 55.37 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 56.28 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	4140.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	77.00 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			4114.00	
Shut In Tool	5.00			4119.00	
Hydraulic tool	5.00			4124.00	
Jars	5.00			4129.00	
Safety Joint	2.00			4131.00	
Packer	5.00			4136.00	27.00 Bottom Of Top Packer
Packer	4.00			4140.00	
Stubb	1.00			4141.00	
Recorder	0.00	6752	Inside	4141.00	
Recorder	0.00	8322	Outside	4141.00	
Perforations	13.00			4154.00	
Change Over Sub	1.00			4155.00	
Drill Pipe	31.00			4186.00	
Change Over Sub	1.00			4187.00	
Bullnose	3.00			4190.00	50.00 Bottom Packers & Anchor

**Total Tool Length: 77.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62578

**DST#: 1**

ATTN: Chuck Schmaltz

Test Start: 2015.05.19 @ 13:17:00

### 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

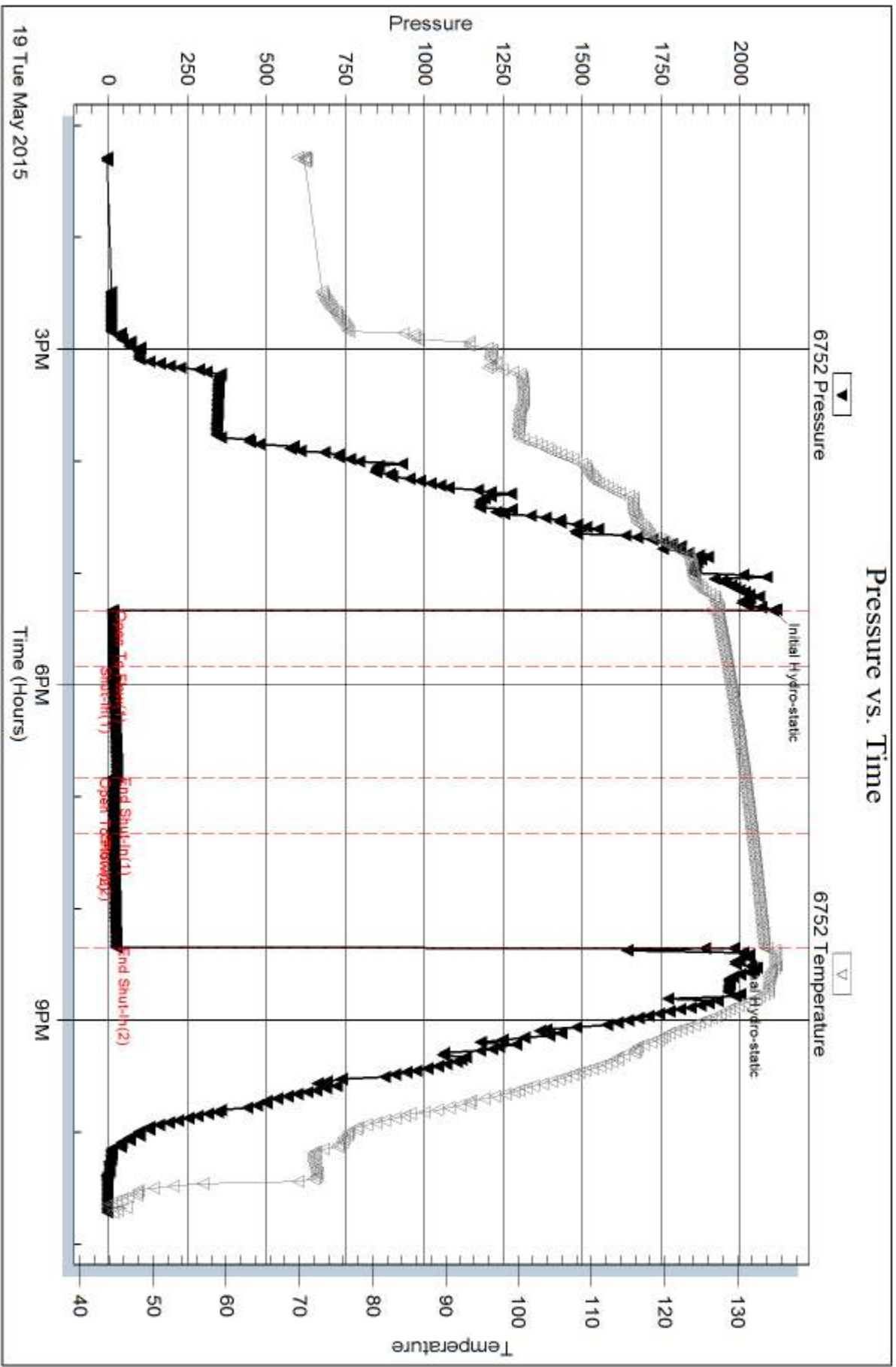
Serial #: 6752

Inside

Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 62578

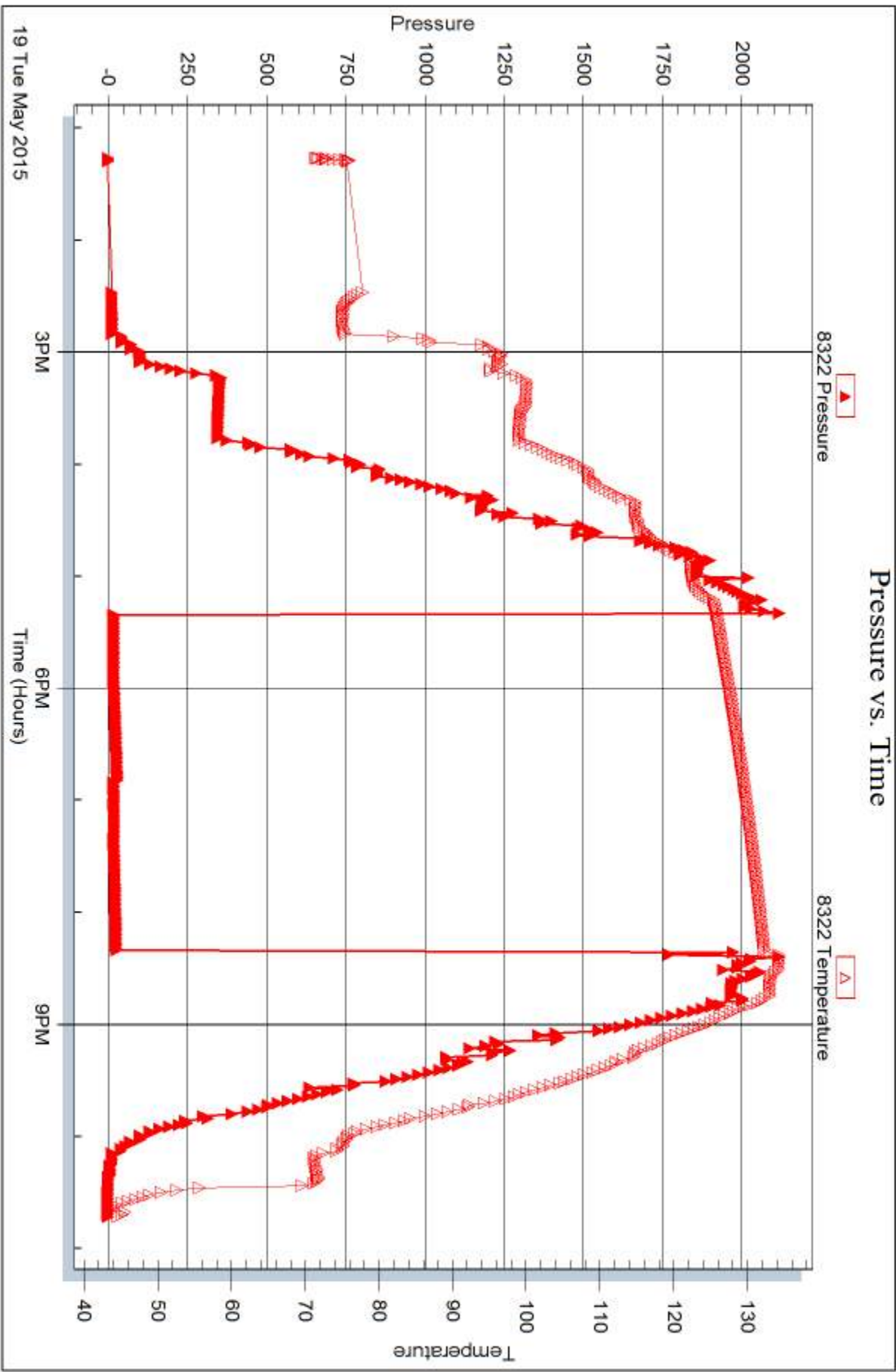
Printed: 2015.05.26 @ 14:05:51

Serial #: 8322

Outside Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 62578

Printed: 2015.05.26 @ 14:05:51



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300  
Wichita KS 67202

ATTN: Chuck Schmaltz

### **Frisbie A #2-6**

#### **6-2s-36w Rawlins,KS**

Start Date: 2015.05.20 @ 19:41:00

End Date: 2015.05.21 @ 04:50:49

Job Ticket #: 62579                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.05.26 @ 14:05:23

Murfin Drilling Co.  
6-2s-36w Rawlins,KS  
Frisbie A #2-6  
DST # 2  
LKC " A - D "  
2015.05.20



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62579

**DST#: 2**

ATTN: Chuck Schmaltz

Test Start: 2015.05.20 @ 19:41:00

## GENERAL INFORMATION:

Formation: **LKC " A - D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:16:40

Time Test Ended: 04:50:49

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols

Unit No: 78

**Interval: 4225.00 ft (KB) To 4348.00 ft (KB) (TVD)**

Reference Elevations: 3343.00 ft (KB)

Total Depth: 4348.00 ft (KB) (TVD)

3338.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6752**

**Inside**

Press@RunDepth: 370.64 psig @ 4226.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.20

End Date:

2015.05.21

Last Calib.:

2015.05.21

Start Time: 19:41:01

End Time:

04:50:49

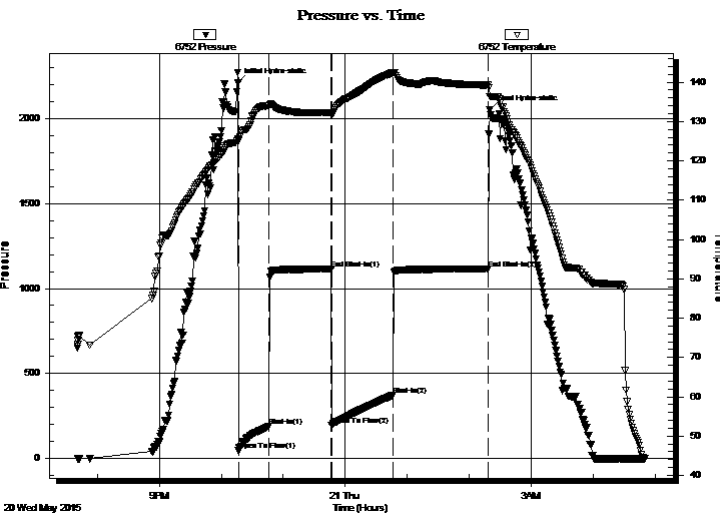
Time On Btm:

2015.05.20 @ 22:16:20

Time Off Btm:

2015.05.21 @ 02:20:00

**TEST COMMENT:** 30 IF - slide 3' w hen tool opened, bleed off surge, 1" blow built to BoB @ 13 mins  
60 ISI - No return  
60 FF - Surface blow started @ 1 1/2 mins built to BoB @ 18 mins  
90 FSI - No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2213.39	125.60	Initial Hydro-static
1	45.19	125.17	Open To Flow (1)
31	190.90	134.17	Shut-In(1)
91	1114.53	132.25	End Shut-In(1)
91	196.21	131.82	Open To Flow (2)
150	370.64	142.46	Shut-In(2)
242	1114.99	139.25	End Shut-In(2)
244	2052.16	136.27	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
186.00	OCMW - 2%o - 8%M - 90%W	0.91
378.00	OCMW - 2%o - 18%M - 80%W	5.30
189.00	OWCM - 2%o - 48%W - 50%M	2.65
20.00	Mud 100%M	0.28

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62579

**DST#: 2**

ATTN: Chuck Schmaltz

Test Start: 2015.05.20 @ 19:41:00

## Tool Information

Drill Pipe:	Length: 4042.00 ft	Diameter: 3.80 inches	Volume: 56.70 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 57.61 bbl</u>	Tool Chased 3.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	4225.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	123.00 ft			
Tool Length:	150.00 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			4199.00	
Shut In Tool	5.00			4204.00	
Hydraulic tool	5.00			4209.00	
Jars	5.00			4214.00	
Safety Joint	2.00			4216.00	
Packer	5.00			4221.00	27.00 Bottom Of Top Packer
Packer	4.00			4225.00	
Stubb	1.00			4226.00	
Recorder	0.00	6752	Inside	4226.00	
Recorder	0.00	8322	Outside	4226.00	
Perforations	23.00			4249.00	
Change Over Sub	1.00			4250.00	
Drill Pipe	94.00			4344.00	
Change Over Sub	1.00			4345.00	
Bullnose	3.00			4348.00	123.00 Bottom Packers & Anchor

**Total Tool Length: 150.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62579

**DST#: 2**

ATTN: Chuck Schmaltz

Test Start: 2015.05.20 @ 19:41:00

## 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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
186.00	OCMW - 2%o - 8%M - 90%W	0.915
378.00	OCMW - 2%o - 18%M - 80%W	5.302
189.00	OWCM - 2%o - 48%W - 50%M	2.651
20.00	Mud 100%M	0.281

Total Length: 773.00 ft

Total Volume: 9.149 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

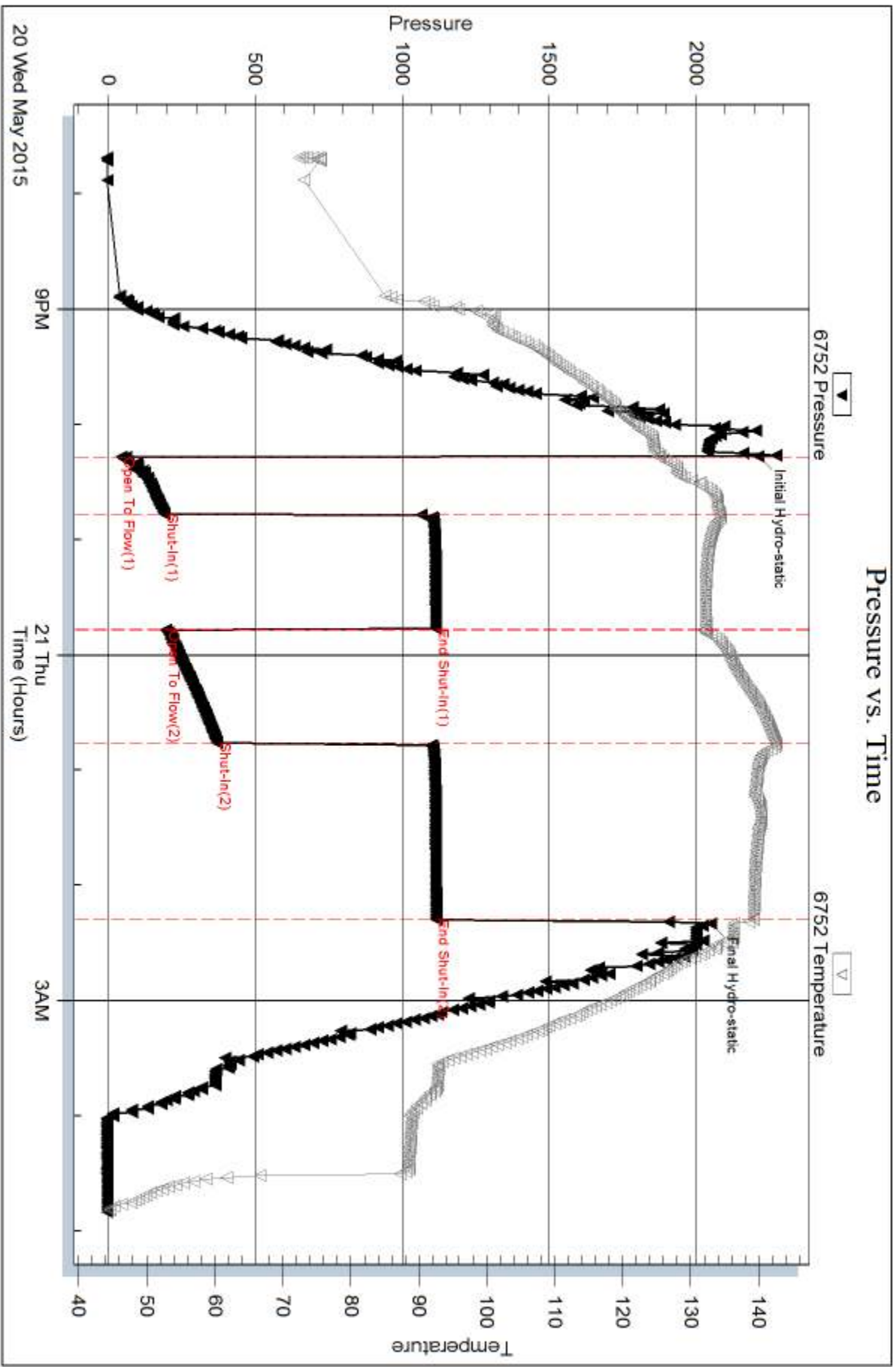
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



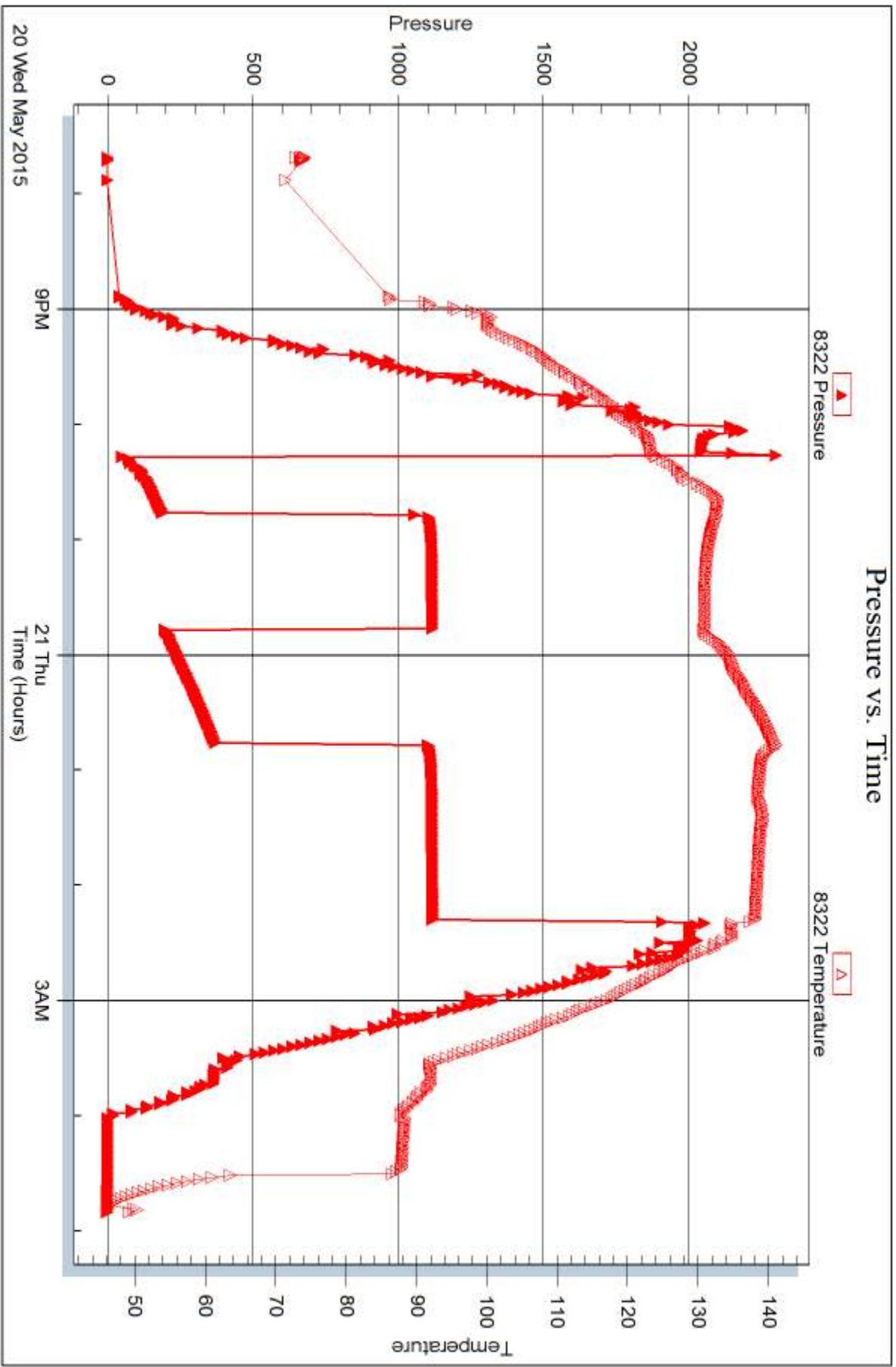


Serial #: 8322

Outside Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 62579

Printed: 2015.05.26 @ 14:05:24



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300  
Wichita KS 67202

ATTN: Chuck Schmaltz

### **Frisbie A #2-6**

#### **6-2s-36w Rawlins,KS**

Start Date: 2015.05.21 @ 15:36:00

End Date: 2015.05.22 @ 00:13:00

Job Ticket #: 62580                      DST #: 3

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.05.26 @ 14:04:57



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62580

**DST#: 3**

ATTN: Chuck Schmalz

Test Start: 2015.05.21 @ 15:36:00

## GENERAL INFORMATION:

Formation: **LKC " G "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:01:10

Time Test Ended: 00:13:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

**Interval: 4358.00 ft (KB) To 4410.00 ft (KB) (TVD)**

Reference Elevations: 3343.00 ft (KB)

Total Depth: 4410.00 ft (KB) (TVD)

3338.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6752**

**Inside**

Press@RunDepth: 947.69 psig @ 4359.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.21

End Date:

2015.05.22

Last Calib.:

2015.05.22

Start Time: 15:36:01

End Time:

00:13:00

Time On Btm:

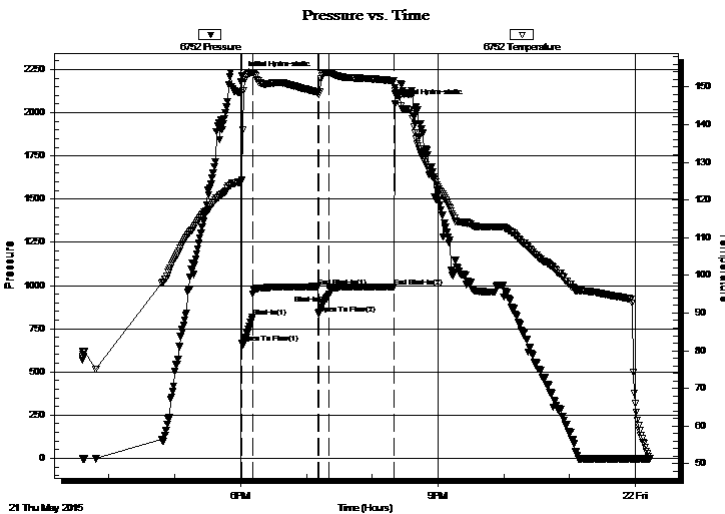
2015.05.21 @ 18:01:00

Time Off Btm:

2015.05.21 @ 20:20:39

**TEST COMMENT:** 10 IF - BoB @ 35 secs  
60 ISI - Surface blow built to 1" died back @ 45 mins to 1/2"  
10 FF - BoB @ 30 secs  
60 FSI - No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2212.27	125.03	Initial Hydro-static
1	664.42	125.21	Open To Flow (1)
10	818.61	153.79	Shut-In(1)
70	993.84	148.58	End Shut-In(1)
70	838.09	148.04	Open To Flow (2)
80	947.69	153.70	Shut-In(2)
139	993.39	151.62	End Shut-In(2)
140	2050.35	149.06	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
315.00	OMCW - 2%o - 3%M - 95%W	2.72
630.00	GOMCW - 30%G - 3%M - 20%o - 47%W	8.84
820.00	GOMCW - 30%G - 10%o - 10%M - 50%W	11.50
315.00	GWMCO - 30%G - 20%W - 20%M - 30%o	4.42
150.00	GOWCM - 10%G - 15%W - 30%o - 40%W	2.10

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62580

**DST#: 3**

ATTN: Chuck Schmaltz

Test Start: 2015.05.21 @ 15:36:00

## Tool Information

Drill Pipe:	Length: 4170.00 ft	Diameter: 3.80 inches	Volume: 58.49 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 59.40 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4358.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	52.00 ft				
Tool Length:	79.00 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			4332.00	
Shut In Tool	5.00			4337.00	
Hydraulic tool	5.00			4342.00	
Jars	5.00			4347.00	
Safety Joint	2.00			4349.00	
Packer	5.00			4354.00	27.00 Bottom Of Top Packer
Packer	4.00			4358.00	
Stubb	1.00			4359.00	
Recorder	0.00	6752	Inside	4359.00	
Recorder	0.00	8322	Outside	4359.00	
Perforations	15.00			4374.00	
Change Over Sub	1.00			4375.00	
Drill Pipe	31.00			4406.00	
Change Over Sub	1.00			4407.00	
Bullnose	3.00			4410.00	52.00 Bottom Packers & Anchor

**Total Tool Length: 79.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62580

**DST#: 3**

ATTN: Chuck Schmaltz

Test Start: 2015.05.21 @ 15:36:00

## 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: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
315.00	OMCW - 2%o - 3%M - 95%W	2.724
630.00	GOMCW - 30%G - 3%M - 20%o - 47%W	8.837
820.00	GOMCW - 30%G - 10%o - 10%M - 50%W	11.502
315.00	GWMCO - 30%G - 20%W - 20%M - 30%o	4.419
150.00	GOWCM - 10%G - 15%W - 30%o - 40%M	2.104

Total Length: 2230.00 ft      Total Volume: 29.586 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

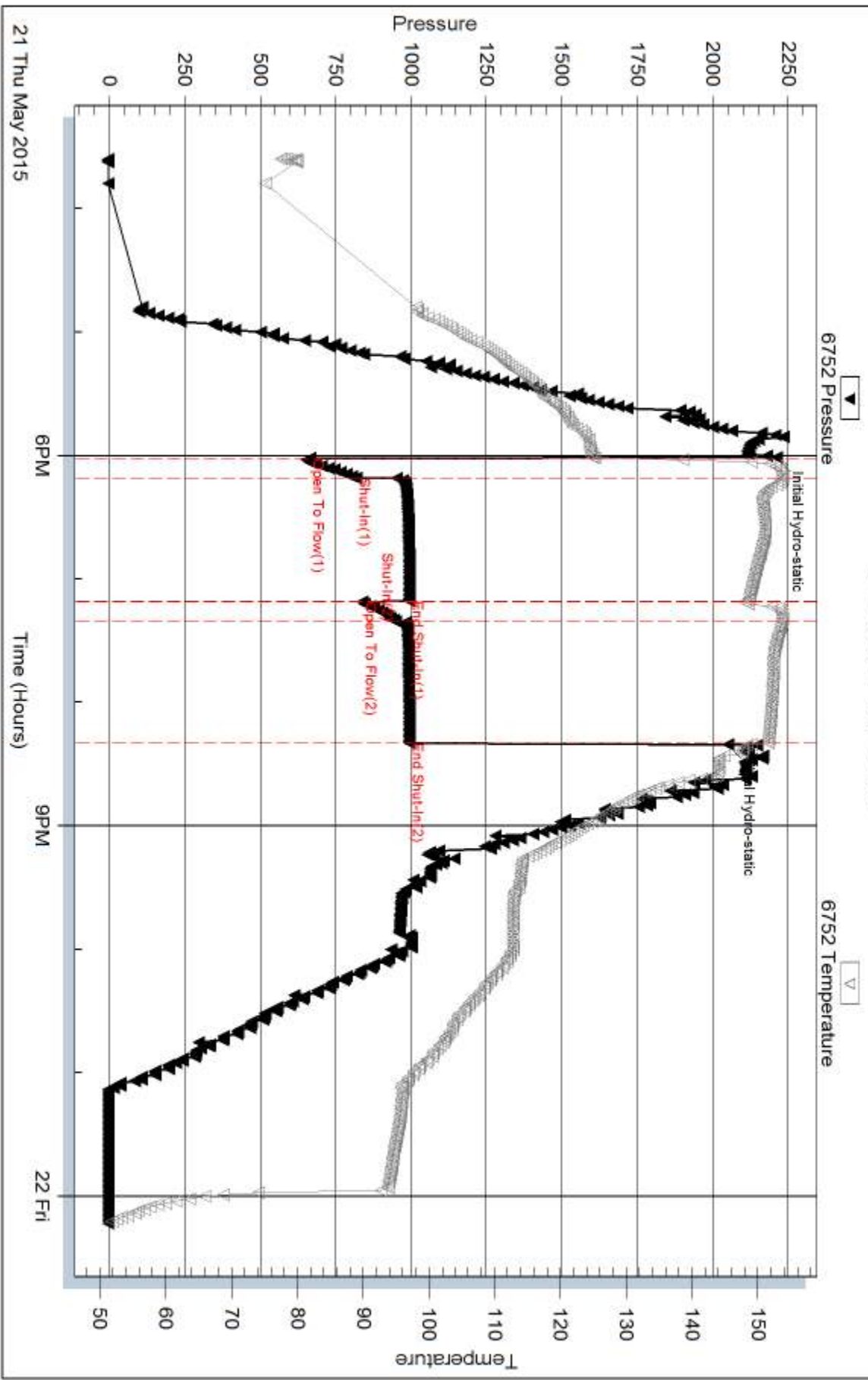
Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .955 @ 48 DEG F

CHLORIDES = 9,500 PPM

### Pressure vs. Time



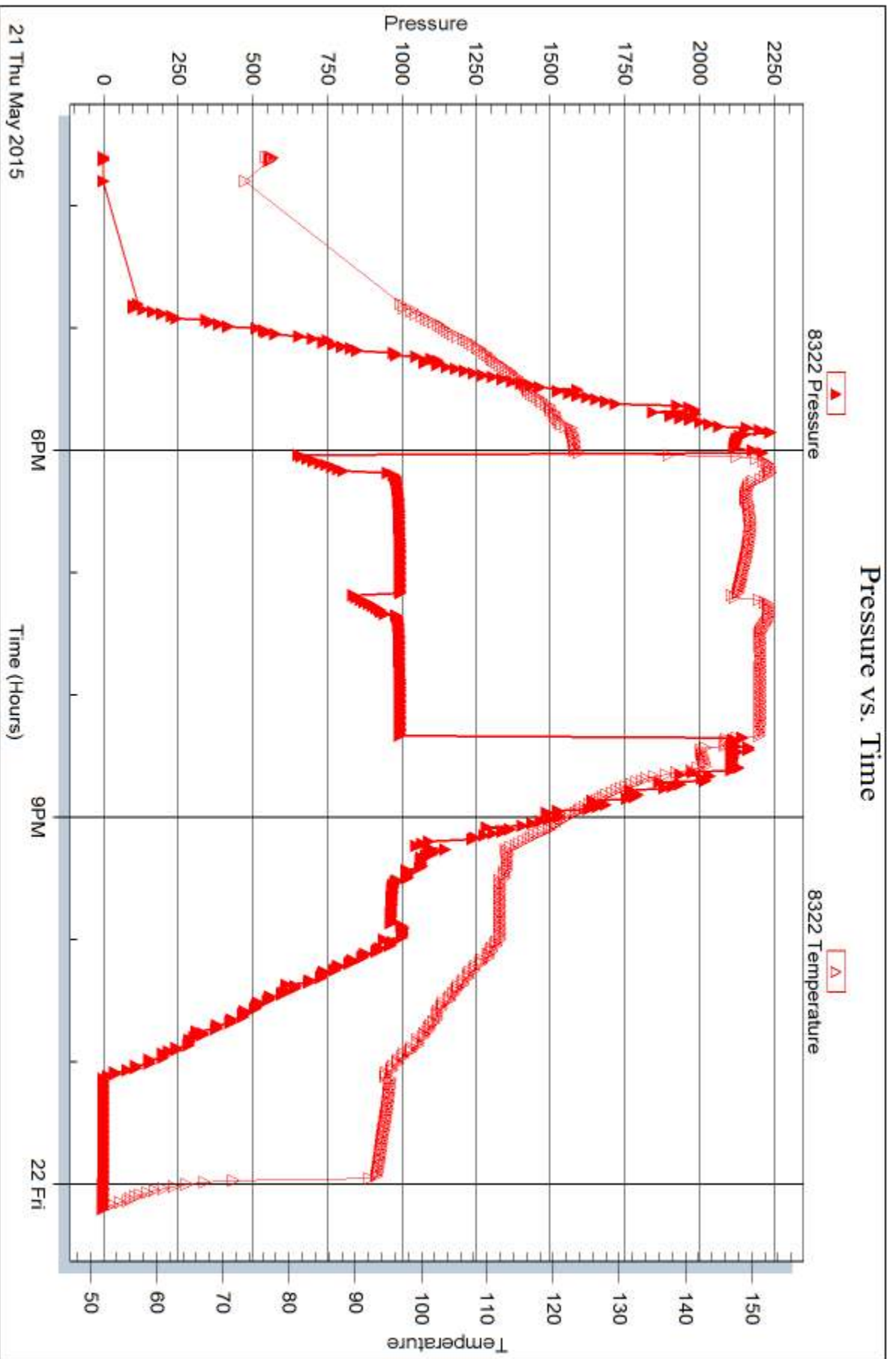


Serial #: 8322

Outside Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 625580

Printed: 2015.05.26 @ 14:04:59



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300  
Wichita KS 67202

ATTN: Chuck Schmaltz

### **Frisbie A #2-6**

#### **6-2s-36w Rawlins,KS**

Start Date: 2015.05.22 @ 14:05:00

End Date: 2015.05.22 @ 22:50:40

Job Ticket #: 62581                      DST #: 4

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.05.26 @ 14:01:06

Murfin Drilling Co. 6-2s-36w Rawlins,KS Frisbie A #2-6 DST # 4 LKC " H - J " 2015.05.22



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62581

**DST#: 4**

ATTN: Chuck Schmaltz

Test Start: 2015.05.22 @ 14:05:00

## GENERAL INFORMATION:

Formation: **LKC "H - J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:20:20

Time Test Ended: 22:50:40

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

**Interval: 4412.00 ft (KB) To 4495.00 ft (KB) (TVD)**

Reference Elevations: 3343.00 ft (KB)

Total Depth: 4495.00 ft (KB) (TVD)

3338.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6752**

**Inside**

Press@RunDepth: 108.57 psig @ 4413.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.22

End Date:

2015.05.22

Last Calib.:

2015.05.22

Start Time: 14:05:01

End Time:

22:50:40

Time On Btm:

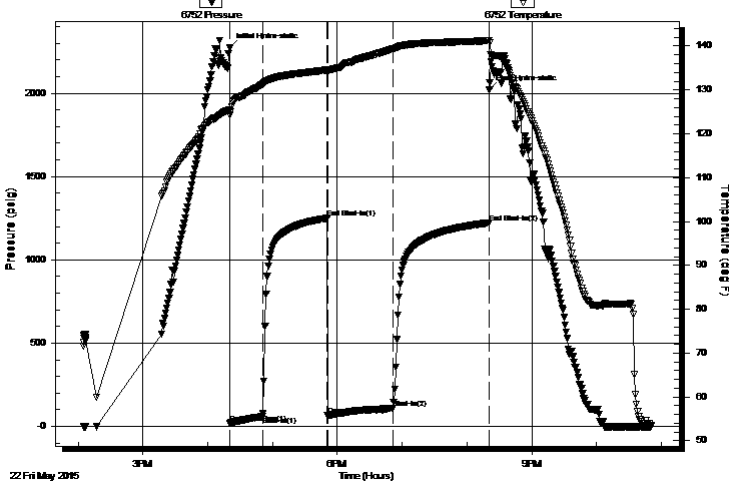
2015.05.22 @ 16:20:10

Time Off Btm:

2015.05.22 @ 20:20:39

**TEST COMMENT:** 30 IF - 1/2" blow built to 5"  
60 ISI - No return  
60 FF - Surface blow started @ 2 mins built to 5"  
90 FSI - No return

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2271.98	125.45	Initial Hydro-static
1	19.65	124.23	Open To Flow (1)
31	59.79	131.30	Shut-In(1)
91	1249.62	134.55	End Shut-In(1)
91	63.63	134.22	Open To Flow (2)
151	108.57	139.34	Shut-In(2)
240	1221.86	141.24	End Shut-In(2)
241	2022.04	141.30	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	WOCM - 20%W - 20%o - 60%M	0.30
62.00	WOCM - 10%W - 20%o - 70%M	0.30
62.00	OCM - 25%o - 75%M	0.30
14.00	Free Oil - 100%o	0.20

## 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.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62581

**DST#: 4**

ATTN: Chuck Schmaltz

Test Start: 2015.05.22 @ 14:05:00

## Tool Information

Drill Pipe:	Length: 4229.00 ft	Diameter: 3.80 inches	Volume: 59.32 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 60.23 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4412.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	83.00 ft				
Tool Length:	110.00 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			4386.00	
Shut In Tool	5.00			4391.00	
Hydraulic tool	5.00			4396.00	
Jars	5.00			4401.00	
Safety Joint	2.00			4403.00	
Packer	5.00			4408.00	27.00 Bottom Of Top Packer
Packer	4.00			4412.00	
Stubb	1.00			4413.00	
Recorder	0.00	6752	Inside	4413.00	
Recorder	0.00	8322	Outside	4413.00	
Perforations	13.00			4426.00	
Change Over Sub	1.00			4427.00	
Drill Pipe	64.00			4491.00	
Change Over Sub	1.00			4492.00	
Bullnose	3.00			4495.00	83.00 Bottom Packers & Anchor

**Total Tool Length: 110.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**6-2s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita KS 67202

**Frisbie A #2-6**

Job Ticket: 62581

**DST#: 4**

ATTN: Chuck Schmaltz

Test Start: 2015.05.22 @ 14:05:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 65.00 sec/qt  
Water Loss: 6.39 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 1000.00 ppm  
Filter Cake: 2.00 inches

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

Oil API: 30 deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	WOCM - 20%W - 20%o - 60%M	0.305
62.00	WOCM - 10%W - 20%o - 70%M	0.305
62.00	OCM - 25%o - 75%M	0.305
14.00	Free Oil - 100%o	0.196

Total Length: 200.00 ft      Total Volume: 1.111 bbl

Num Fluid Samples: 0

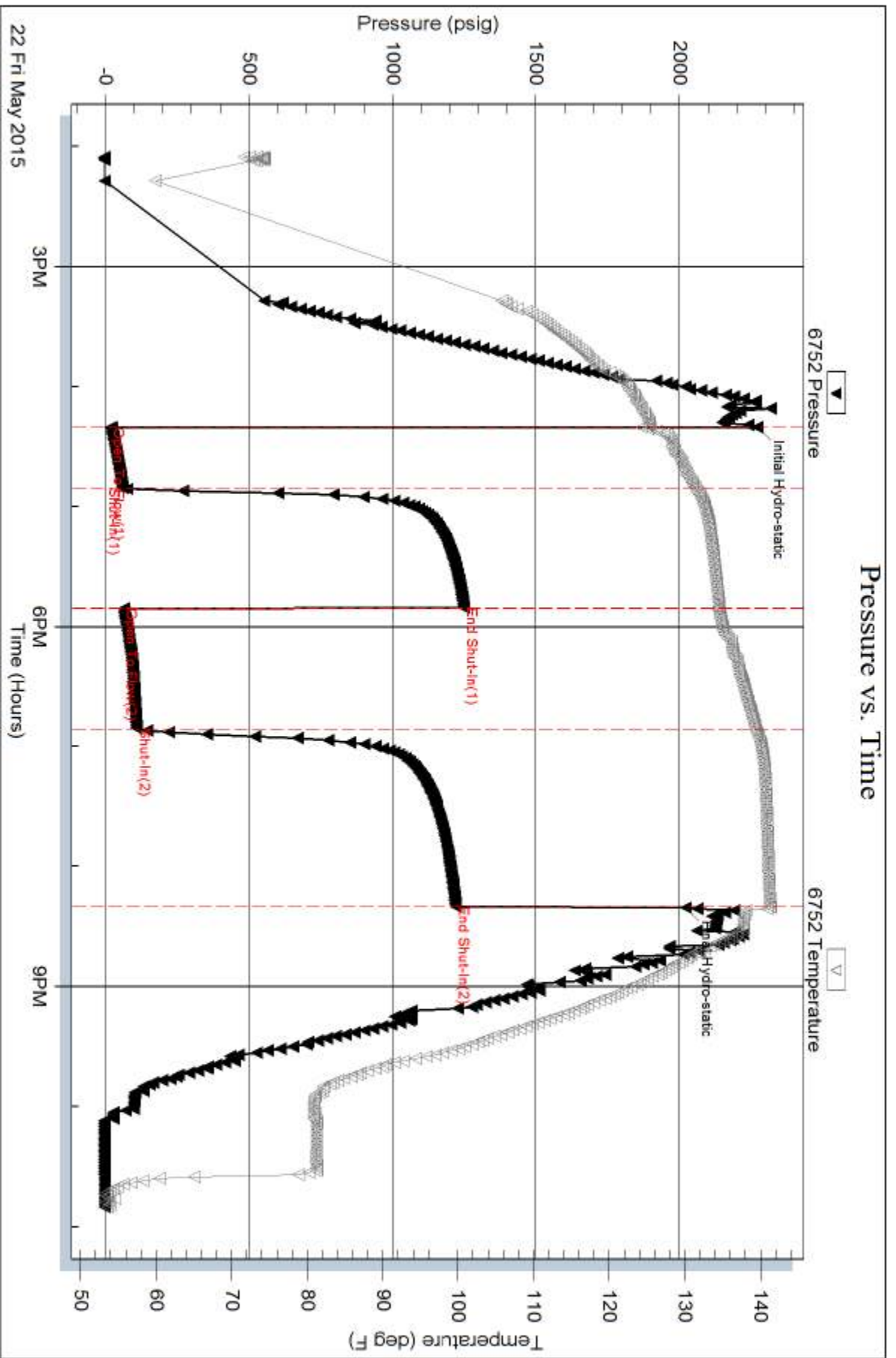
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: OIL API = 31 @ 70 DEG F = 30 COR 60 DEG F

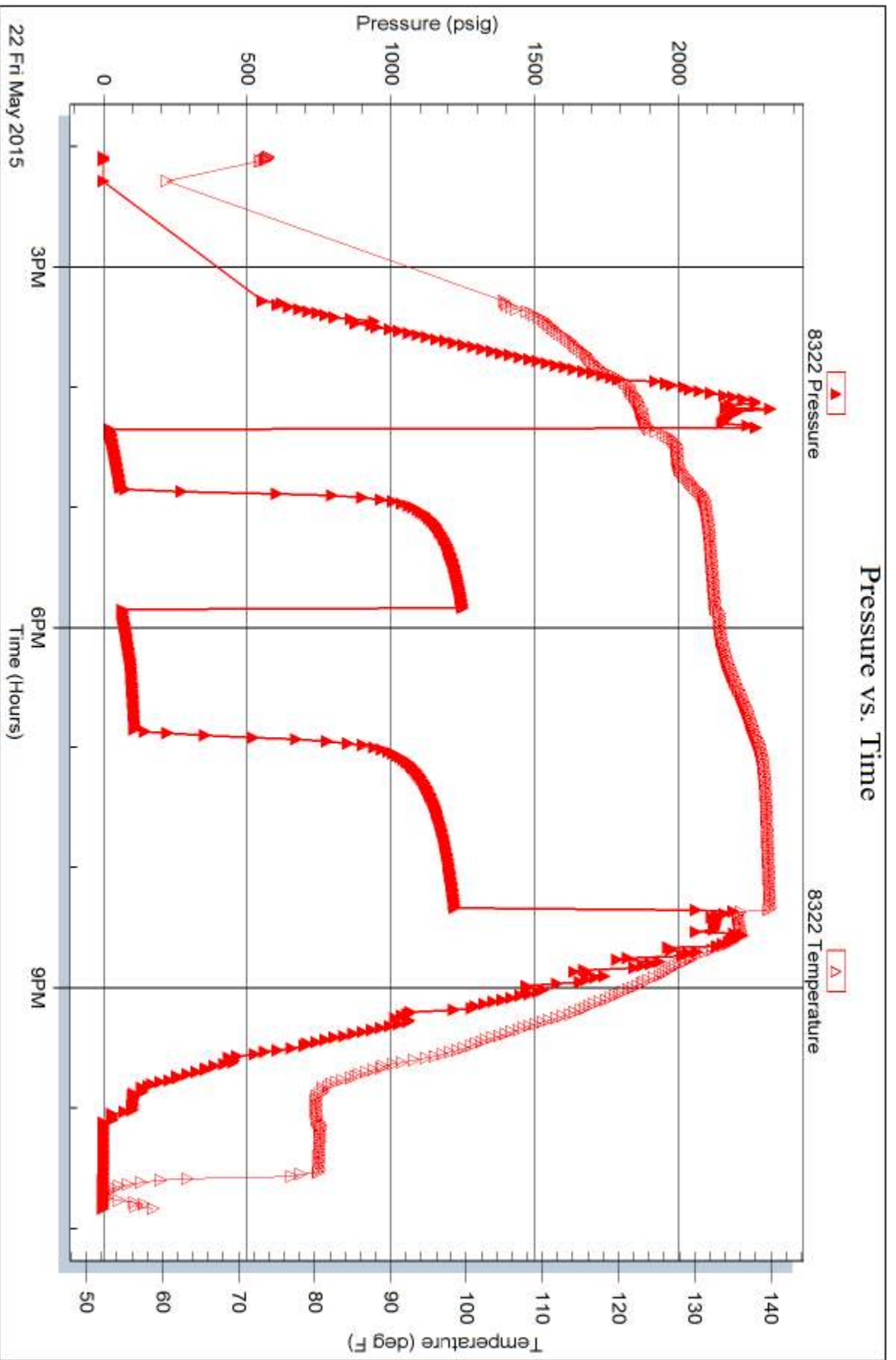


Serial #: 8322

Outside Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 4



Tribble Testing, Inc

Ref. No: 62581

Printed: 2015.05.26 @ 14:01:08





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62578

Well Name & No. Frisbe A Test No. 1 Date 5-19-15  
 Company Murfin Drilling Co. Elevation 3343 KB 3338 GL  
 Address 250 N. Water STE 300 Wichita KS 67202  
 Co. Rep / Geo. Chuck Schmalz Rig Murfin #6  
 Location: Sec. 6 Twp. 25 Rge. 36 W Co. Rawlins State KS

Interval Tested 4140 - 4190 Zone Tested Oread  
 Anchor Length 50' Drill Pipe Run 3947' Mud Wt. 9.3  
 Top Packer Depth 4135 Drill Collars Run 186' Vis 53  
 Bottom Packer Depth 4140 Wt. Pipe Run 0' WL 6.8  
 Total Depth 4190 Chlorides 600 ppm System LCM 4  
 Blow Description IF - Surface blow built to 1/2"  
ISI - No blow  
FF - No blow  
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%n
<u>5'</u>	<u>Mud</u>			<u>100</u>	<u>%n</u>
Rec	Feet of	%gas	%oil	%water	%n
Rec	Feet of	%gas	%oil	%water	%n
Rec	Feet of	%gas	%oil	%water	%n
Rec	Feet of	%gas	%oil	%water	%n

Rec Total 5' BHT 1340 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_  
 (A) Initial Hydrostatic 2104  Test 1150 T-On Location 12:00  
 (B) First Initial Flow 14  Jars 250 T-Started 13:17  
 (C) First Final Flow 17  Safety Joint 75 T-Open 17:20  
 (D) Initial Shut-In 28  Circ Sub NC T-Pulled 20:20  
 (E) Second Initial Flow 16  Hourly Standby \_\_\_\_\_ T-Out 22:42  
 (F) Second Final Flow 18  Mileage 120 RT 120 Comments \_\_\_\_\_  
 (G) Final Shut-In 25  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1979  Straddle \_\_\_\_\_  
 Initial Open 30  Shale Packer \_\_\_\_\_  
 Initial Shut-In 60  Shale Packer \_\_\_\_\_  
 Final Flow 30  Extra Packer \_\_\_\_\_  
 Final Shut-In 60  Extra Recorder \_\_\_\_\_  
 Sub Total 0  
 Total 1595  
 Sub Total 1595 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any less suffered or sustained, directly or indirectly, through the use of 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. 62579

Well Name & No. Frigbie A # 2-6 Test No. 2 Date 5/20/15  
 Company Martin Drilling Co. Elevation 3343 KB 7338 GL  
 Address 250 N. Water STE 300 Wichita KS 67202  
 Co. Rep / Geo. Chuck Schmalz Rig Martin #8  
 Location: Sec. 6 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4225 - 4348 Zone Tested 2KC "A-D"  
 Anchor Length 123' Drill Pipe Run 4042' Mud Wt. 9.3  
 Top Packer Depth 4220 Drill Collars Run 186' Vis 48  
 Bottom Packer Depth 4225 Wt. Pipe Run 0' WL 7.2  
 Total Depth 4348 Chlorides 600 ppm System LCM 4

Blow Description IF - slid 3' when tool opened bleed off surge, 1" built to BOB @ 13 mins / ISI - No return  
FF - Surface started @ 1 1/2 mins built to BOB @ 18 mins  
FST - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud</u>			<u>100</u>	
<u>189</u>	<u>OMCW</u>		<u>2</u>	<u>48</u>	<u>50</u>
<u>378</u>	<u>OMCW</u>		<u>2</u>	<u>80</u>	<u>18</u>
<u>186</u>	<u>OMCW</u>		<u>2</u>	<u>90</u>	<u>8</u>

Rec Total 773' BHT 139' Gravity — API RW — @ — °F Chlorides — ppm  
 (A) Initial Hydrostatic 2213  Test 1150 T-On Location 19:30  
 (B) First Initial Flow 45  Jars 250 T-Started 19:41  
 (C) First Final Flow 191  Safety Joint 75 T-Open 22:15  
 (D) Initial Shut-In 1115  Circ Sub NC T-Pulled 02:15  
 (E) Second Initial Flow 196  Hourly Standby \_\_\_\_\_ T-Out 04:50  
 (F) Second Final Flow 371  Mileage 120 RT 110 Comments \_\_\_\_\_  
 (G) Final Shut-In 1115  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2052  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 90  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1585  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1585

Approved By \_\_\_\_\_

Our Representative Chuck Schmalz

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. 62580

Well Name & No. Frisbie A #2-6 Test No. 3 Date 5/21/15  
 Company Martin Drilling Co. Elevation 3343 KB 3338 GL  
 Address 250 N. Water STE 300 Wichita KS 67202  
 Co. Rep / Geo. Chuck Schmatz Rig Martin #8  
 Location: Sec. 6 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4358 - 4410 Zone Tested 2KC "G"  
 Anchor Length 52' Drill Pipe Run \_\_\_\_\_ Mud Wt. 9.1  
 Top Packer Depth 4353 Drill Collars Run 186' Vis 56  
 Bottom Packer Depth 4358 Wt. Pipe Run 0 WL 6.4  
 Total Depth 4410 Chlorides 600 ppm System LCM 5

Blow Description IF - BoB @ 35 secs  
ISI - Surface blow built to 1", died back @ 45 mins to 1/2"  
FF - BoB @ 30 secs  
FSI -

Rec <u>150</u>	Feet of <u>GOWCM</u>	<u>10</u> %gas	<u>30</u> %oil	<u>15</u> %water	<u>40</u> %mud
Rec <u>315</u>	Feet of <u>GWMCO</u>	<u>30</u> %gas	<u>30</u> %oil	<u>20</u> %water	<u>20</u> %mud
Rec <u>820</u>	Feet of <u>GOMCW</u>	<u>30</u> %gas	<u>10</u> %oil	<u>50</u> %water	<u>10</u> %mud
Rec <u>630</u>	Feet of <u>GOMCW</u>	<u>30</u> %gas	<u>20</u> %oil	<u>47</u> %water	<u>3</u> %mud
Rec <u>315</u>	Feet of <u>OMCW</u>	<u>0</u> %gas	<u>2</u> %oil	<u>95</u> %water	<u>3</u> %mud

Rec Total 2230 BHT 152° Gravity \_\_\_\_\_ API RW 955 @ 48° F Chlorides 9500 ppm  
 (A) Initial Hydrostatic 2212  Test 1150 T-On Location 15:00  
 (B) First Initial Flow 664  Jars 250 T-Started 15:36  
 (C) First Final Flow 819  Safety Joint 75 T-Open 18:00  
 (D) Initial Shut-In 994  Circ Sub NC T-Pulled 20:20  
 (E) Second Initial Flow 838  Hourly Standby \_\_\_\_\_ T-Out 00:13  
 (F) Second Final Flow 948  Mileage 120 RT 110 Comments \_\_\_\_\_  
 (G) Final Shut-In 993  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2050  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1585

Initial Open 10  
 Initial Shut-In 60  
 Final Flow 10  
 Final Shut-In 60

Total 1585  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62581

Well Name & No. Frisbie A # 2-6 Test No. 4 Date 5/22/15  
 Company Martin Drilling Co. Elevation 3343 KB 3338 GL  
 Address 250 N. Water STE 300 Wichita KS 67202  
 Co. Rep / Geo. Chuck Schmalz Rig Martin # 8  
 Location: Sec. 6 Twp. 25 Rge. 36W Co. Rawlins State KS

Interval Tested 4412 - 4495 Zone Tested LKC "H-J"  
 Anchor Length 83' Drill Pipe Run 4229 Mud Wt. 9.2  
 Top Packer Depth 4407 Drill Collars Run 186' Vis 65  
 Bottom Packer Depth 4412 Wt. Pipe Run 0' WL 6.4  
 Total Depth 4495 Chlorides 1000 ppm System LCM 4  
 Blow Description IF - 1/2" blow built to 5"  
ISI - No return  
FF - Surface blow started @ 2 mins built to 5"  
FSE - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>14</u>	<u>0:1</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>62</u>	<u>0CM</u>	<u>25</u>	<u>0</u>	<u>75</u>	<u>0</u>
<u>62</u>	<u>WOCM</u>	<u>20</u>	<u>10</u>	<u>70</u>	<u>0</u>
<u>62</u>	<u>WOCM</u>	<u>20</u>	<u>20</u>	<u>60</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 200' BHT 141° Gravity 30 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>2272</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>13:30</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>14:02</u>
(C) First Final Flow <u>60</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>16:20</u>
(D) Initial Shut-In <u>1250</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>20:20</u>
(E) Second Initial Flow <u>64</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>22:50</u>
(F) Second Final Flow <u>109</u>	<input checked="" type="checkbox"/> Mileage <u>120 RT</u> 110	Comments
(G) Final Shut-In <u>1222</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2022</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</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1585</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1585</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62213

Well Name & No. Frisbie 'A' # 2-6 Test No. \_\_\_\_\_ Date 5-25-15  
 Company Murfin Drilling CO., Inc. Elevation 3343 KB 3338 GL \_\_\_\_\_  
 Address 250 N. water STE 300, Wichita, KS, 67202  
 Co. Rep / Geo. Chuck Schmalz Rig Murfin #8  
 Location: Sec. 6 Twp. 2S Rge. 36w Co. Rawlins State KS

Interval Tested \_\_\_\_\_ Zone Tested \_\_\_\_\_  
 Anchor Length \_\_\_\_\_ Drill Pipe Run \_\_\_\_\_ Mud Wt. \_\_\_\_\_  
 Top Packer Depth \_\_\_\_\_ Drill Collars Run \_\_\_\_\_ Vis \_\_\_\_\_  
 Bottom Packer Depth \_\_\_\_\_ Wt. Pipe Run \_\_\_\_\_ WL \_\_\_\_\_  
 Total Depth \_\_\_\_\_ Chlorides \_\_\_\_\_ ppm System \_\_\_\_\_ LCM \_\_\_\_\_

Blow Description went to load tools the night of the 24<sup>th</sup> but Tool Pusher wasn't informed & they shut down till 10:00 am on the 25<sup>th</sup> went to load tools. Unable to get into location due to weather conditions.

Rec	Feet of	%gas	%oil	%water	%mud

Rec Total \_\_\_\_\_ BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic \_\_\_\_\_  Test No test T-On Location \_\_\_\_\_  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started \_\_\_\_\_  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open \_\_\_\_\_  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled \_\_\_\_\_  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out \_\_\_\_\_  
 (F) Second Final Flow \_\_\_\_\_  Mileage 220 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open \_\_\_\_\_  
 Initial Shut-In \_\_\_\_\_  
 Final Flow \_\_\_\_\_  Day Standby 1.5d 23.25h Sub Total 800  
 Final Shut-In \_\_\_\_\_  Accessibility \_\_\_\_\_ Total 1020  
 Sub Total 220 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_

Our Representative Benjamin [Signature]

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UCC  
Prod-MG



P.O. Box 205803  
Dallas, TX 75320-5803

Voice: (832) 482-3742  
Fax: (832) 482-3738

# INVOICE

Invoice Number: 149640  
Invoice Date: May 15, 2015  
Page: 1

Federal Tax I.D.#: 20-8651475

<b>Bill To:</b>
Murfin Drlg. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202

Customer ID	Field Ticket #	Payment Terms	
Murfin	65548	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Great Bend	May 15, 2015	6/14/15

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Frisbie A #2-6		
280.00	CEMENT MATERIALS	Class A Common	17.90	5,012.00
790.00	CEMENT MATERIALS	Chloride	1.10	869.00
294.01	CEMENT SERVICE	Cubic Feet Charge	2.48	729.14
1,220.40	CEMENT SERVICE	Ton Mileage Charge	2.75	3,356.10
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
90.00	CEMENT SERVICE	Heavy Vehide Mileage	7.70	693.00
90.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	396.00
1.00	CEMENT SUPERVISOR	Kevin Eddy		
1.00	EQUIPMENT OPERATOR	Ben Newell		
1.00	OPERATOR ASSISTANT	Marlyn Spangenberg		

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ 5,655.37 ✓

ONLY IF PAID ON OR BEFORE

Jun 14, 2015

Subtotal	12,567.49
Sales Tax	464.60
Total Invoice Amount	13,032.09
Payment/Credit Applied	
<b>TOTAL</b>	<b>13,032.09</b>

- 5655.37  
7376.72

*OK JR*







P. O. Box 466  
Ness City, KS 67560  
Off: 785-798-2300



# Invoice

DATE	INVOICE #
5/25/2015	28487

BILL TO
Murfin Drilling Co Inc PO Box 661 Colby, KS 67701-0661

USED FOR 1C 103 R • Acidizing  
 APPROVED JT FH • Cement  
 • Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#2-6	Frisbie A	Rawlins	Company Tools	Oil	Development	Cement LongStri...	Blaine
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				150	Miles	5.00	750.00
579D	Pump Charge - Top To Bottom LongString				1	Job	1,700.00	1,700.00
403-5	5 1/2" Cement Basket				3	Each	250.00	750.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	225.00	225.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	300.00	300.00T
409-5	5 1/2" Turbolizer				15	Each	75.00	1,125.00T
413-5	5 1/2" Roto Wall Scratcher				10	Each	35.00	350.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
330	Swift Multi-Density Standard (MIDCON II)				300	Sacks	15.75	4,725.00T
325	Standard Cement				200	Sacks	12.25	2,450.00T
284	Calseal				10	Sack(s)	30.00	300.00T
283	Salt				1,000	Lb(s)	0.20	200.00T
285	CFR-1				150	Lb(s)	4.50	675.00T
276	Flocele				175	Lb(s)	2.25	393.75T
281	Mud Flush				500	Gallon(s)	1.25	625.00T
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
290	D-Air				3	Gallon(s)	42.00	126.00T
581D	Service Charge Cement				500	Sacks	1.50	750.00
583D	Drayage				3,813.98	Ton Miles	0.75	2,860.49
	Subtotal							18,605.24
	Sales Tax Rawlins County						7.90%	991.04
<b>We Appreciate Your Business!</b>							<b>Total</b>	<b>\$19,596.28</b>



TICKET 28487

CHARGE TO: *Murfin Drilling*  
 ADDRESS:  
 CITY, STATE, ZIP CODE:

PAGE 1 OF 2

WELL/PROJECT NO. *2-6* LEASE *Frisbie A* COUNTY/PARISH *RAWLINS* STATE *KS* CITY *McDonald* DATE *25 MAY 15* OWNER  
 CONTRACTOR *CO TOOLS* RIG NAME/NO. *8* SHIPPED VIA *CT* DELIVERED TO *location* ORDER NO.  
 WELL TYPE *6.1* WELL CATEGORY *Development* JOB PURPOSE *cement log string* WELL PERMIT NO. *6-2-36* WELL LOCATION

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT							
575		1			150	Mi			5.00	750.00
579		1		MILEAGE	1 ea				1700.00	1700.00
403		1		Pump Charge	3 ea				250.00	750.00
406		1		Cement basket	1 ea				225.00	225.00
407		1		Latch down plug & baffle	1 ea				300.00	300.00
409		1		Insert float shoe w/ auto fill	15 ea				75.00	1125.00
413		1		Turbolizer	10 ea				35.00	350.00
419		1		Roto Wall Scratcher	1 ea				200.00	200.00
				Rotating head rental						

**LEGAL TERMS:** Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X *Alan Robinson*  
 DATE SIGNED *2/23/11* TIME SIGNED  A.M.  P.M.

APPROVAL *[Signature]*

**REMIT PAYMENT TO:**  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?  
 WE UNDERSTOOD AND MET YOUR NEEDS?  
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?  
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?  
 ARE YOU SATISFIED WITH OUR SERVICE?  
 YES  NO  CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 1 5400.00  
 2 13200.00  
 subtotal 18600.00  
 Rawlins TAX 7.9% 991.04  
 TOTAL 19,596.28

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR *[Signature]* APPROVAL *[Signature]*

Thank You!



PO Box 466  
Ness City, KS 67560  
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 28487

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		TIME	DESCRIPTION	QTY	U/W	QTY	U/W	UNIT PRICE	AMOUNT
		LOC	ACCT								
330		1			S.M.D cement	300	sk			15 75	4725 00
325		1			STANDARD cement (for SA-2)	200	sk			12 25	2450 00
284		1			cal seal	1000	lb	10	sk	30 00	300 00
283		1			salt	1000	lb			0 20	200 00
285		1			CFR-1	150	lb			4 50	675 00
276		1			facele	175	lb			2 25	393 75
281		1			mud flush	500	gal			1 25	625 00
221		1			KCh Liquid	4	gal			25 00	100 00
290		1			D-air	3	gal			42 00	126 00
581		1			SERVICE CHARGE						
583		1			MILEAGE CHARGE						
					TOTAL WEIGHT	50653					
					LOADED MILES	150					
					CUBIC FEET	50056					
					TON MILES	3913.99					
										1 50	750 00
										0 75	2860 48

CONTINUATION TOTAL 13205 27

JOB LOG

SWIFT Services, Inc.

DATE 25 May 15 PAGE NO. 1  
 TICKET NO. 28487

CUSTOMER MURFIN Drilling WELL NO. 2-6 LEASE Frabire A JOB TYPE cement lay string

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								300 sks SMD cement w/ 1/4" Flowline 200 sks EA-2 cement w/ 1/4" Flowline 5 1/2" x 15.5" casing 117 jts 9896' sheet 21 Baskets 17, 41, 65 Control rods 1-10, 12, 14, 16, 40, 64
	1600							on loc TRR 112
	1745							start 5 1/2" x 15.5" casing in well circulate jt 64 zone
	2000							Drop ball - circulate - ROTATE
	<del>2105</del> 2103		12					Pump 500gal mid flush
		4 3/4	20				300	Pump 20 bbl KCL flush
		4 3/4					300	
			7					Plug RH - MH 30sk - 20sk
	2124 <del>2124</del>	4 3/4	155				200	Mix SMD cement 250sk @ 11.2ppg
		4 3/4	47				300	Mix EA-2 cement 200sk @ 15.3ppg
								Drop latch down plug wash out pump & line
	2220	6 1/4					200	Displace plug (KCL mark in first 20 bbl)
		6 1/4	111				1400	Cement to surface
		6 1/4	112				1400	200sk topk
	2245	6 1/4	116				1900	
								Release pressure to truck - dried up
	2250							wash truck
	2330							Pack up job complete Thank Blair, Flint, Tyler, & Isaac

MDCI  
 Frisbie 'A' #2-6  
 2005' FSL 2150'FEL  
 Sec. 6-2S-36W  
 3343' KB

Formation	Sample top	Datum	Ref	Log tops	Datum	Ref
Anhydrite	3246	+97	-14	3241	+102	-9
B/Anhydrite	3279	+64	-12	3270	+73	-3
Neva	3727	-384	-9	3720	-377	-2
Topeka	4055	-712	-3	4052	-709	
Oread	4183	-840	-2	4185	-842	-4
Lansing	4273	-930	-5	4271	-928	-3
Stark	4491	-1148	-5	4488	-1145	-2
BKC	4543	-1200	-3	4538	-1195	+2
Pawnee	4667	-1324	-1	4664	-1321	+2
Cherokee	4745	-1402	-1	4742	-1399	+2
RTD	4900					
LTD				4898		