

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1248995  
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
-----------------------------------	-----------------	---

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: \_\_\_\_\_

1248995

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

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> _____ _____
--	--	---

Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Abell Ranch 3-25
Doc ID	1248995

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: Jeff Christian

### **Abell Ranch #3-25**

### **25 12s 31w Gove,KS**

Start Date: 2015.01.15 @ 10:08:00

End Date: 2015.01.15 @ 19:04:45

Job Ticket #: 59562                      DST #: 1

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

Printed: 2015.01.22 @ 15:38:49



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59562

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2015.01.15 @ 10:08:00

## GENERAL INFORMATION:

Formation: **Lecompton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:04:00

Time Test Ended: 19:04:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 69

**Interval: 3752.00 ft (KB) To 3810.00 ft (KB) (TVD)**

Reference Elevations: 2852.00 ft (KB)

Total Depth: 3810.00 ft (KB) (TVD)

2841.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 162.83 psig @ 3753.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.15

End Date:

2015.01.15

Last Calib.:

2015.01.15

Start Time: 10:08:05

End Time:

19:04:45

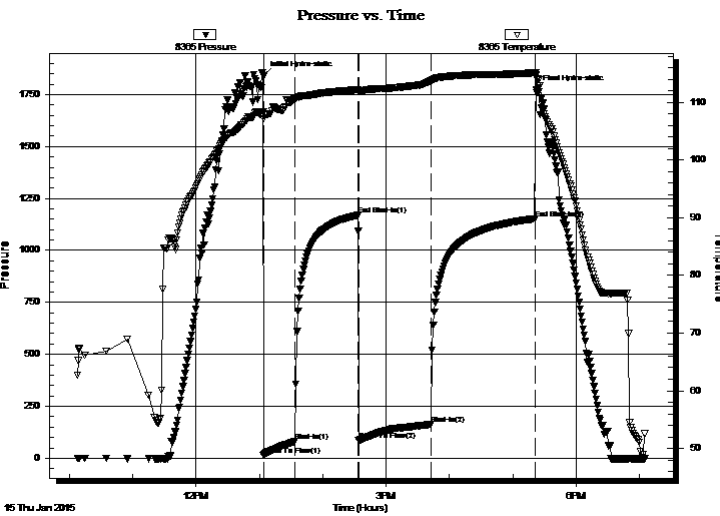
Time On Btm:

2015.01.15 @ 13:03:45

Time Off Btm:

2015.01.15 @ 17:22:00

TEST COMMENT: IF: 2 1/2" blow .  
IS: No return.  
FF: 2 1/2" blow .  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1839.30	108.31	Initial Hydro-static
1	15.42	107.20	Open To Flow (1)
31	80.50	110.61	Shut-In(1)
90	1169.22	112.17	End Shut-In(1)
91	85.51	111.86	Open To Flow (2)
159	162.83	113.68	Shut-In(2)
258	1152.64	115.11	End Shut-In(2)
259	1775.10	114.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
325.00	w cm 30w 70m ( oils spots)	2.03

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59562

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2015.01.15 @ 10:08:00

## Tool Information

Drill Pipe:	Length: 3450.00 ft	Diameter: 3.80 inches	Volume: 48.39 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: 278.00 ft	Diameter: 2.25 inches	Volume: 1.37 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 49.76 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3752.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	85.00 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			3726.00	
Shut In Tool	5.00			3731.00	
Hydraulic tool	5.00			3736.00	
Jars	5.00			3741.00	
Safety Joint	2.00			3743.00	
Packer	5.00			3748.00	27.00 Bottom Of Top Packer
Packer	4.00			3752.00	
Stubb	1.00			3753.00	
Recorder	0.00	8365	Inside	3753.00	
Recorder	0.00	8522	Outside	3753.00	
Perforations	21.00			3774.00	
Change Over Sub	1.00			3775.00	
Drill Pipe	31.00			3806.00	
Change Over Sub	1.00			3807.00	
Bullnose	3.00			3810.00	58.00 Bottom Packers & Anchor

**Total Tool Length: 85.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co.

**25 12s 31w Gove,KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59562

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2015.01.15 @ 10:08:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

40000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
325.00	w cm 30w 70m ( oils spots)	2.026

Total Length: 325.00 ft      Total Volume: 2.026 bbl

Num Fluid Samples: 0

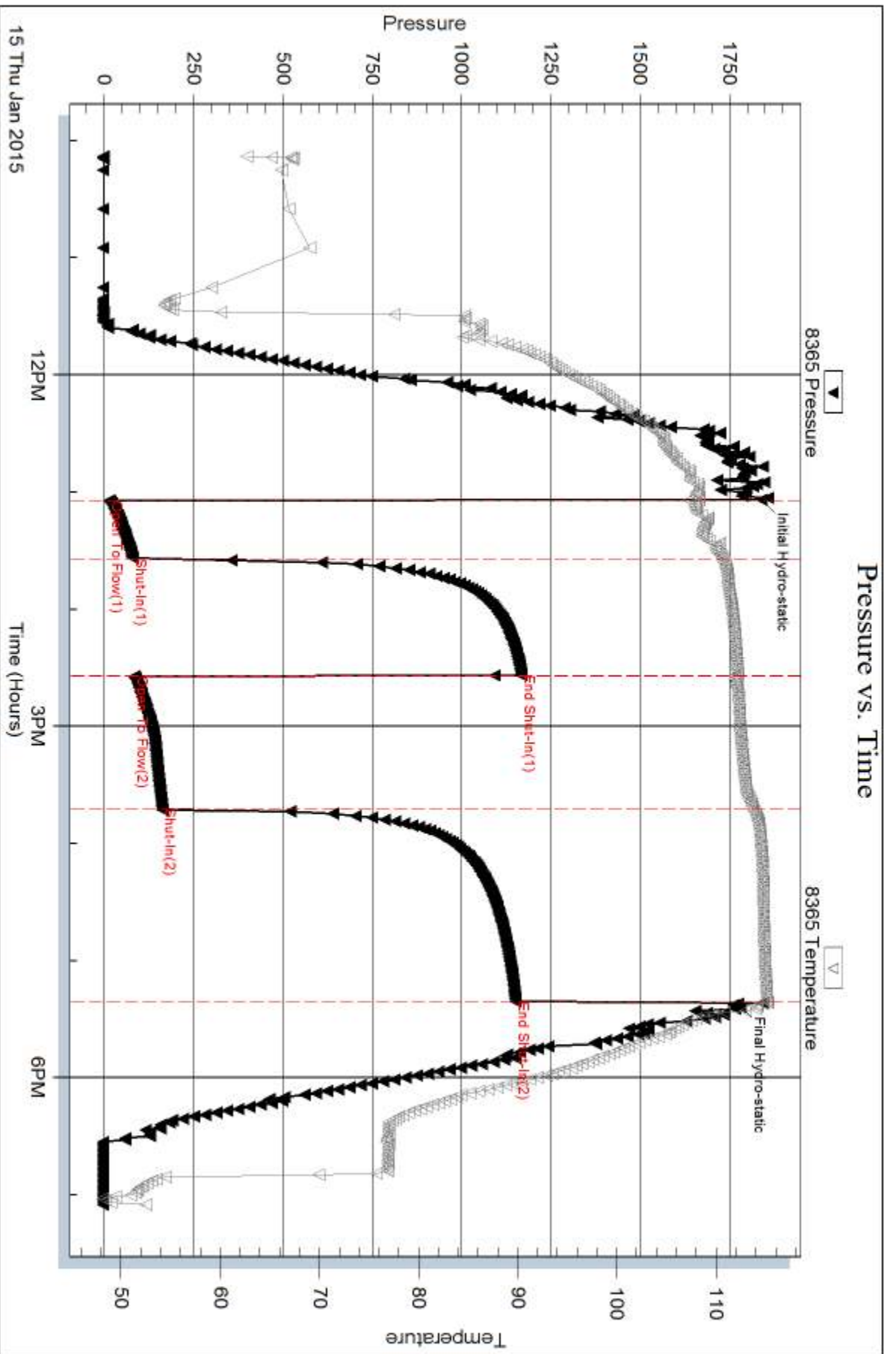
Num Gas Bombs: 0

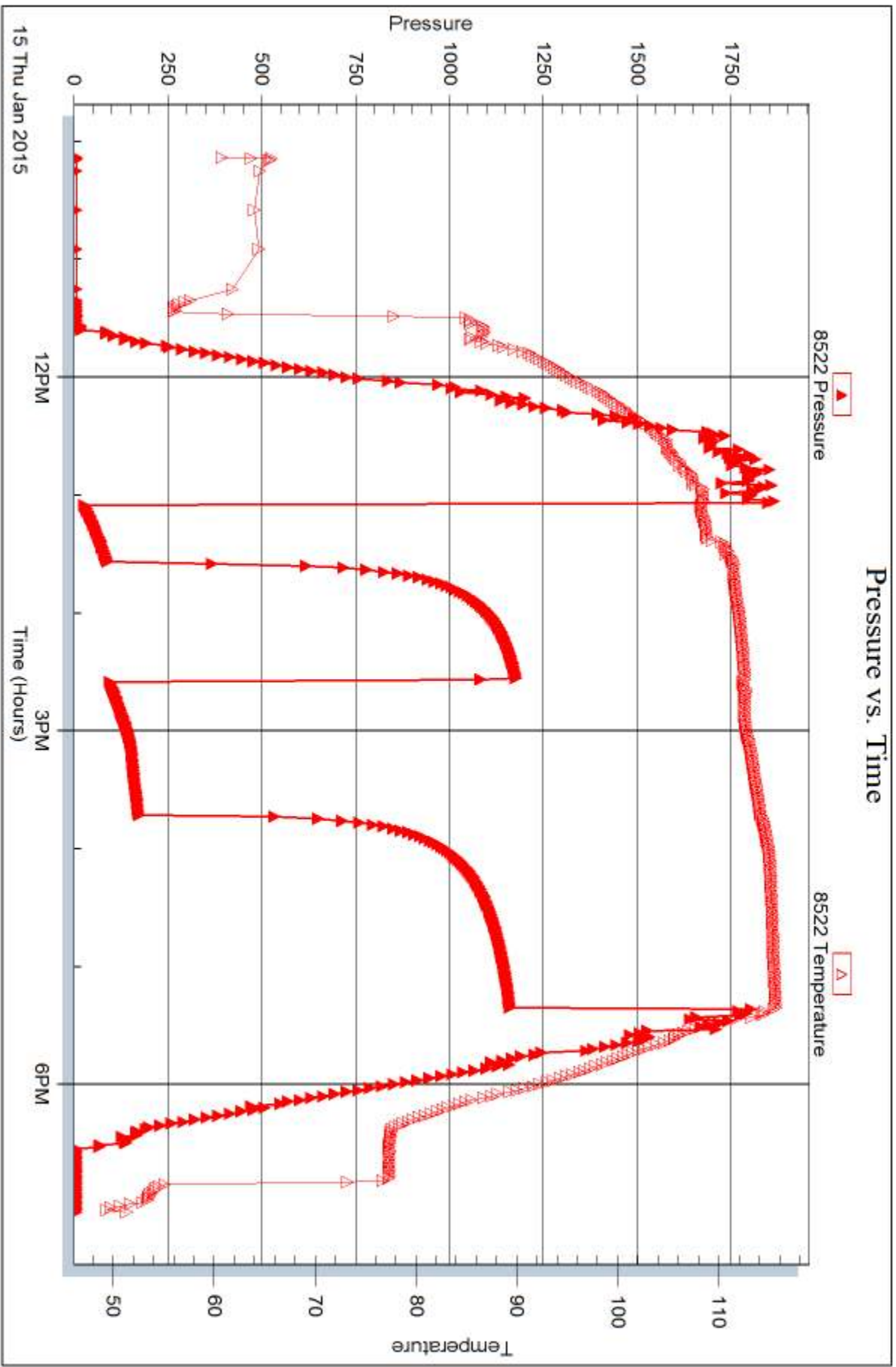
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .320 @ 39F = 40,000ppm







## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Abell Ranch #3-25**

### **25 12s 31w Gove,KS**

Start Date: 2015.01.16 @ 10:21:00

End Date: 2015.01.16 @ 17:12:00

Job Ticket #: 59563                      DST #: 2

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

Printed: 2015.01.22 @ 15:38:28



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59563

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2015.01.16 @ 10:21:00

## GENERAL INFORMATION:

Formation: **LKC B-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:26:45

Time Test Ended: 17:12:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 3926.00 ft (KB) To 3974.00 ft (KB) (TVD)**

Reference Elevations: 2852.00 ft (KB)

Total Depth: 3974.00 ft (KB) (TVD)

2841.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 42.04 psig @ 3927.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.16

End Date:

2015.01.16

Last Calib.:

2015.01.16

Start Time: 10:21:05

End Time:

17:11:59

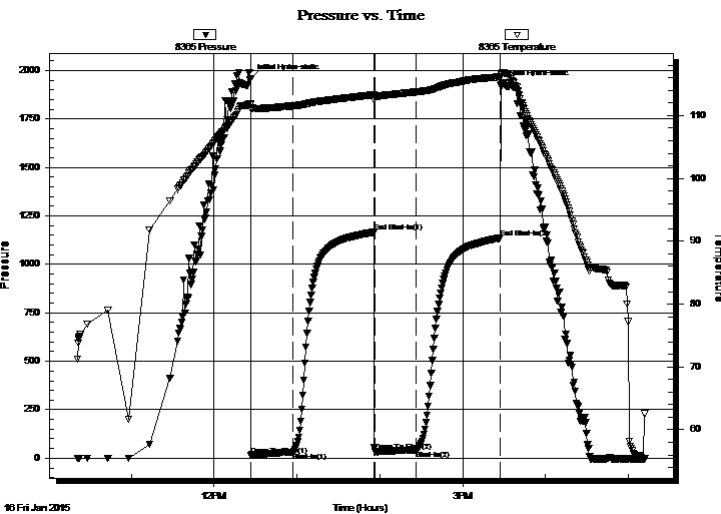
Time On Btm:

2015.01.16 @ 12:26:30

Time Off Btm:

2015.01.16 @ 15:27:45

**TEST COMMENT:** IF: 1/4" blow, receded to surface.  
IS: No return.  
FF: No blow.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1959.55	111.81	Initial Hydro-static
1	15.66	111.05	Open To Flow (1)
31	31.79	111.54	Shut-In(1)
90	1165.97	113.31	End Shut-In(1)
90	34.03	113.03	Open To Flow (2)
120	42.04	113.77	Shut-In(2)
181	1136.33	116.15	End Shut-In(2)
182	1928.58	116.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	socm 1o 99m	0.25

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59563

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2015.01.16 @ 10:21:00

## GENERAL INFORMATION:

Formation: **LKC B-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:26:45

Time Test Ended: 17:12:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: **3926.00 ft (KB) To 3974.00 ft (KB) (TVD)**

Total Depth: 3974.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2852.00 ft (KB)

2841.00 ft (CF)

KB to GR/CF: 11.00 ft

**Serial #: 8522**

**Outside**

Press@RunDepth: psig @ 3927.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.16

End Date:

2015.01.16

Last Calib.:

2015.01.16

Start Time: 10:21:05

End Time:

17:11:59

Time On Btm:

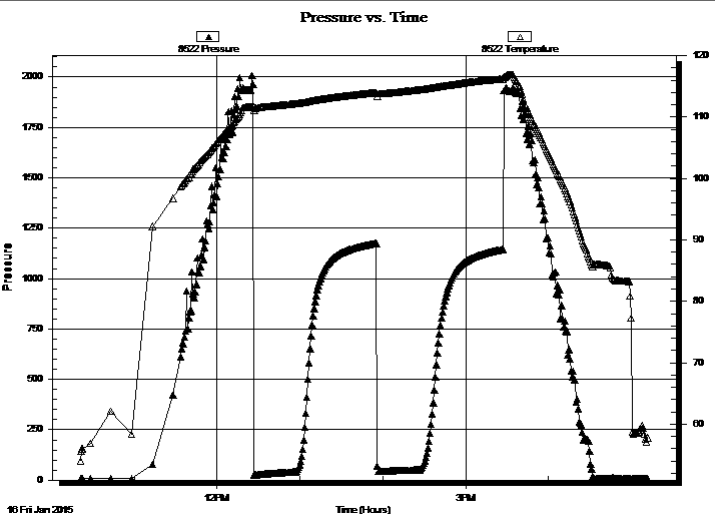
Time Off Btm:

TEST COMMENT: IF: 1/4" blow, receded to surface.

IS: No return.

FF: No blow.

FS: No return.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	socm 1o 99m	0.25

\* 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.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59563

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2015.01.16 @ 10:21:00

## Tool Information

Drill Pipe:	Length: 3640.00 ft	Diameter: 3.80 inches	Volume: 51.06 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: 278.00 ft	Diameter: 2.25 inches	Volume: 1.37 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 52.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3926.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	75.00 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			3900.00	
Shut In Tool	5.00			3905.00	
Hydraulic tool	5.00			3910.00	
Jars	5.00			3915.00	
Safety Joint	2.00			3917.00	
Packer	5.00			3922.00	27.00 Bottom Of Top Packer
Packer	4.00			3926.00	
Stubb	1.00			3927.00	
Recorder	0.00	8365	Inside	3927.00	
Recorder	0.00	8522	Outside	3927.00	
Perforations	11.00			3938.00	
Change Over Sub	1.00			3939.00	
Drill Pipe	31.00			3970.00	
Change Over Sub	1.00			3971.00	
Bullnose	3.00			3974.00	48.00 Bottom Packers & Anchor

**Total Tool Length: 75.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59563

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2015.01.16 @ 10:21:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	socm 1o 99m	0.246

Total Length: 50.00 ft      Total Volume: 0.246 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

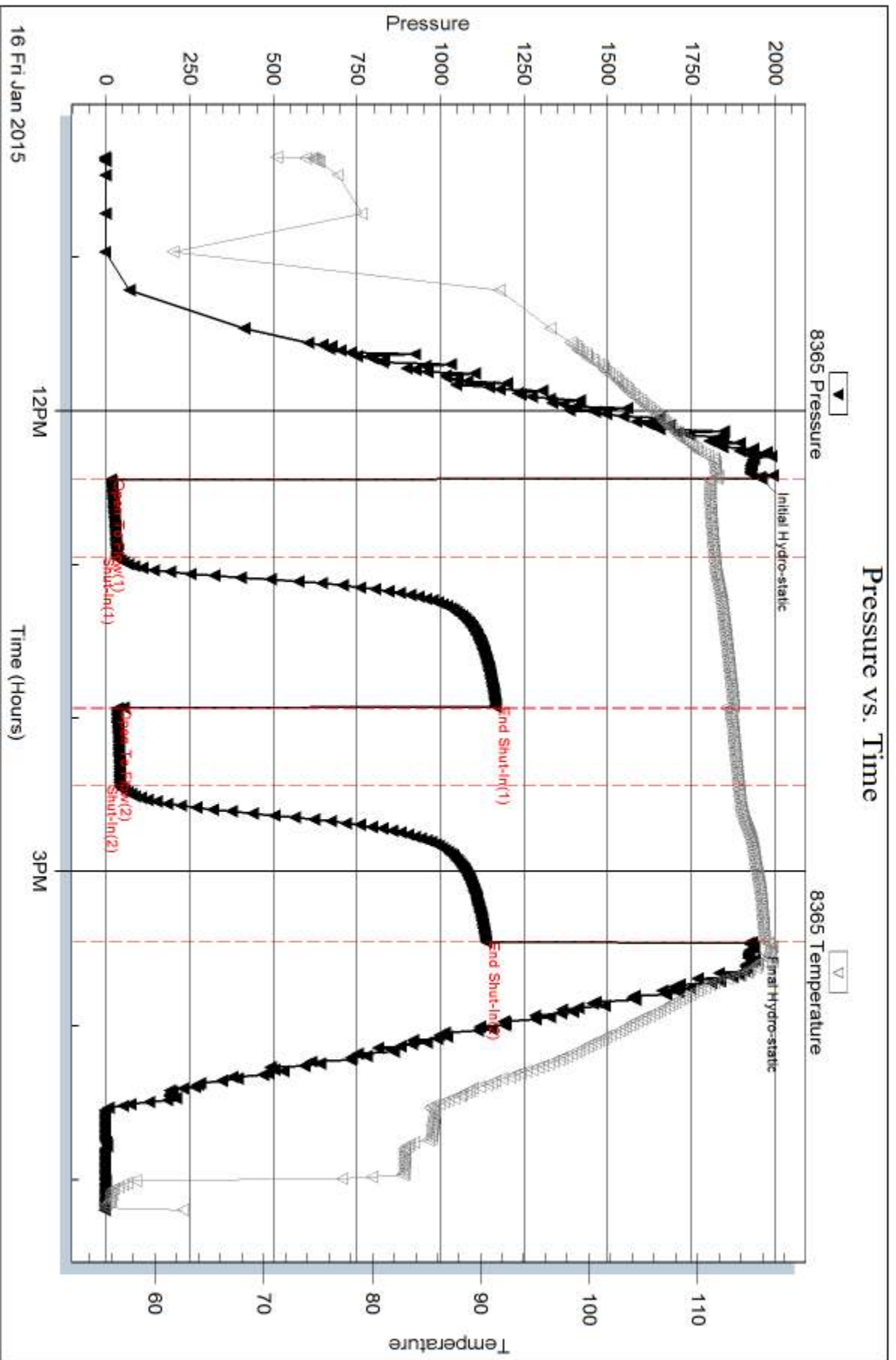
Laboratory Name:

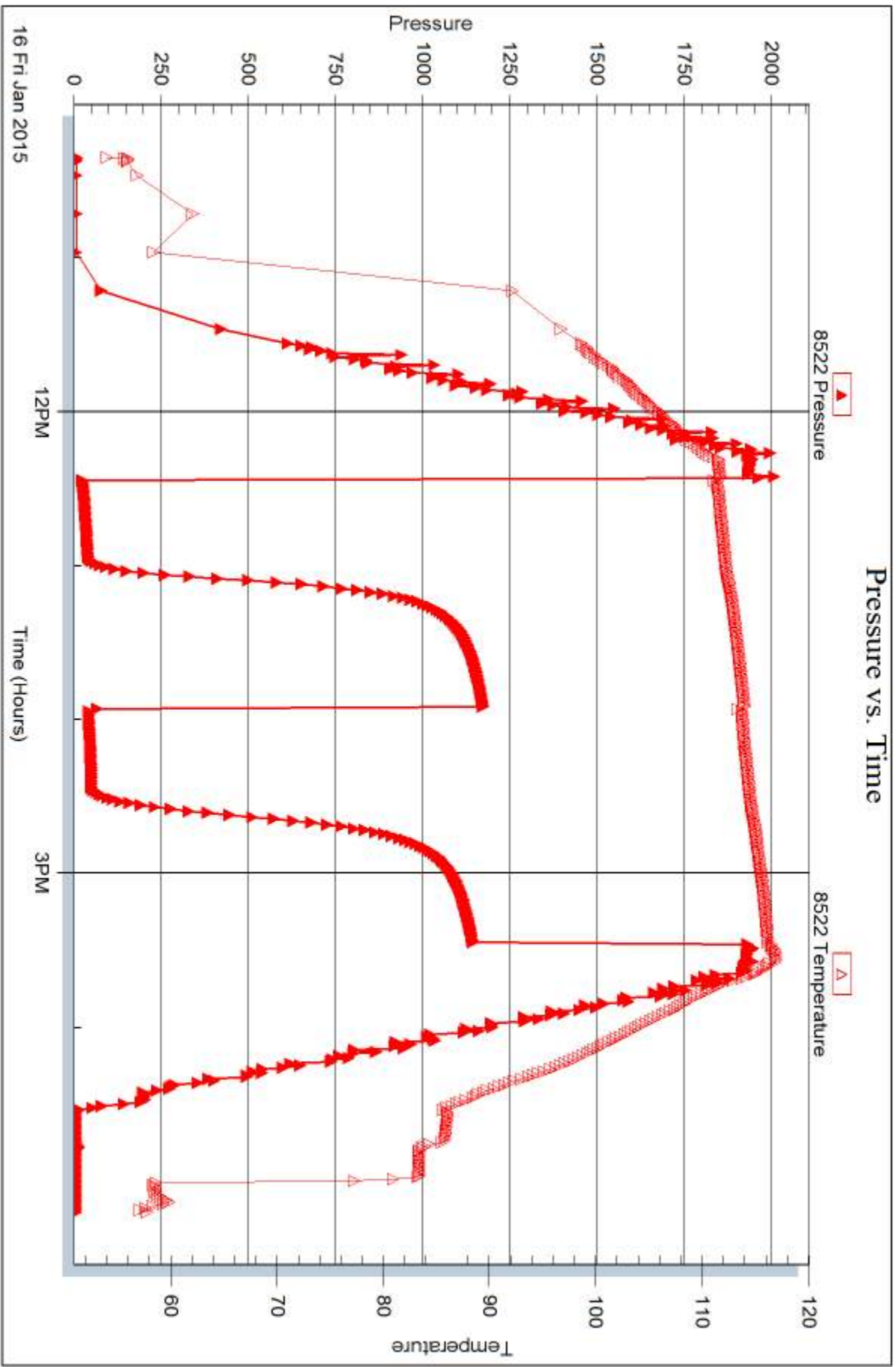
Laboratory Location:

Recovery Comments:



### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Abell Ranch #3-25**

### **25 12s 31w Gove,KS**

Start Date: 2015.01.16 @ 22:41:00

End Date: 2015.01.17 @ 07:11:15

Job Ticket #: 59564                      DST #: 3

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

Printed: 2015.01.22 @ 15:38:05



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59564

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2015.01.16 @ 22:41:00

## GENERAL INFORMATION:

Formation: **LKC E & F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:27:45

Time Test Ended: 07:11:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 3974.00 ft (KB) To 4005.00 ft (KB) (TVD)**

Reference Elevations: 2852.00 ft (KB)

Total Depth: 4005.00 ft (KB) (TVD)

2841.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 20.11 psig @ 3975.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.16

End Date:

2015.01.17

Last Calib.: 2015.01.17

Start Time: 22:41:05

End Time:

07:11:14

Time On Btm: 2015.01.17 @ 02:27:30

Time Off Btm: 2015.01.17 @ 05:31:15

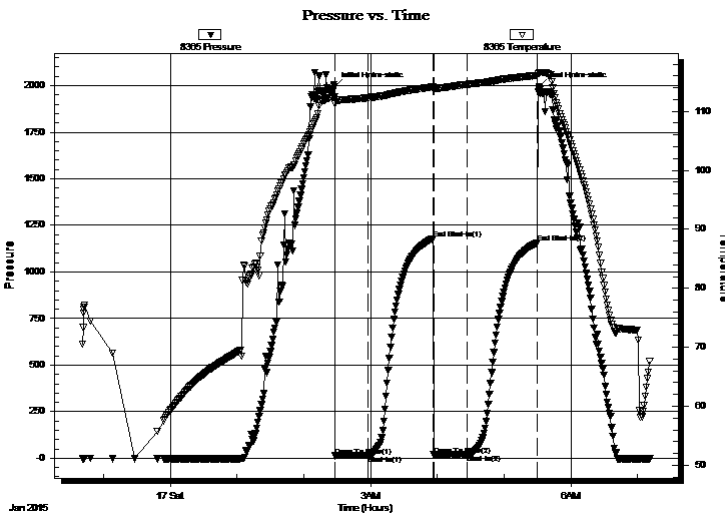
TEST COMMENT: IF: Surface blow, Died @ 5 min.

IS: No return.

FF: No blow.

FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1996.55	112.47	Initial Hydro-static
1	12.83	111.24	Open To Flow (1)
30	16.95	112.30	Shut-In(1)
89	1178.09	114.14	End Shut-In(1)
89	18.25	113.82	Open To Flow (2)
120	20.11	114.58	Shut-In(2)
183	1157.72	116.10	End Shut-In(2)
184	1992.92	116.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100m (oil spots)	0.05

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

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

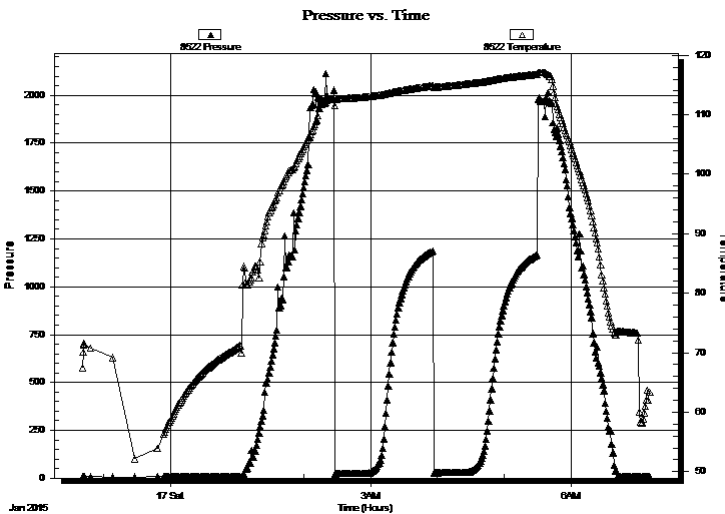
**25 12s 31w Gove, KS**  
**Abell Ranch #3-25**  
Job Ticket: 59564      **DST#: 3**  
Test Start: 2015.01.16 @ 22:41:00

## GENERAL INFORMATION:

Formation:	<b>LKC E &amp; F</b>		
Deviated:	No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened:	02:27:45		Tester: Bradley Walter
Time Test Ended:	07:11:15		Unit No: 69
<b>Interval:</b>	<b>3974.00 ft (KB) To 4005.00 ft (KB) (TVD)</b>		Reference Elevations: 2852.00 ft (KB)
Total Depth:	4005.00 ft (KB) (TVD)		2841.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition: Good	KB to GR/CF: 11.00 ft

<b>Serial #: 8522</b>	<b>Outside</b>			
Press@RunDepth:	psig @ 3975.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2015.01.16	End Date:	2015.01.17	Last Calib.: 2015.01.17
Start Time:	22:41:05	End Time:	07:11:14	Time On Btm:
				Time Off Btm:

TEST COMMENT: IF: Surface blow , Died @ 5 min.  
IS: No return.  
FF: No blow .  
FS: No return.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100m (oil spots)	0.05

\* 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.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59564

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2015.01.16 @ 22:41:00

## Tool Information

Drill Pipe:	Length: 3702.00 ft	Diameter: 3.80 inches	Volume: 51.93 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: 278.00 ft	Diameter: 2.25 inches	Volume: 1.37 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 53.30 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3974.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	58.00 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			3948.00	
Shut In Tool	5.00			3953.00	
Hydraulic tool	5.00			3958.00	
Jars	5.00			3963.00	
Safety Joint	2.00			3965.00	
Packer	5.00			3970.00	27.00 Bottom Of Top Packer
Packer	4.00			3974.00	
Stubb	1.00			3975.00	
Recorder	0.00	8365	Inside	3975.00	
Recorder	0.00	8522	Outside	3975.00	
Perforations	27.00			4002.00	
Bullnose	3.00			4005.00	31.00 Bottom Packers & Anchor

**Total Tool Length: 58.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59564

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2015.01.16 @ 22:41:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 5.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
10.00	mud 100m (oil spots)	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

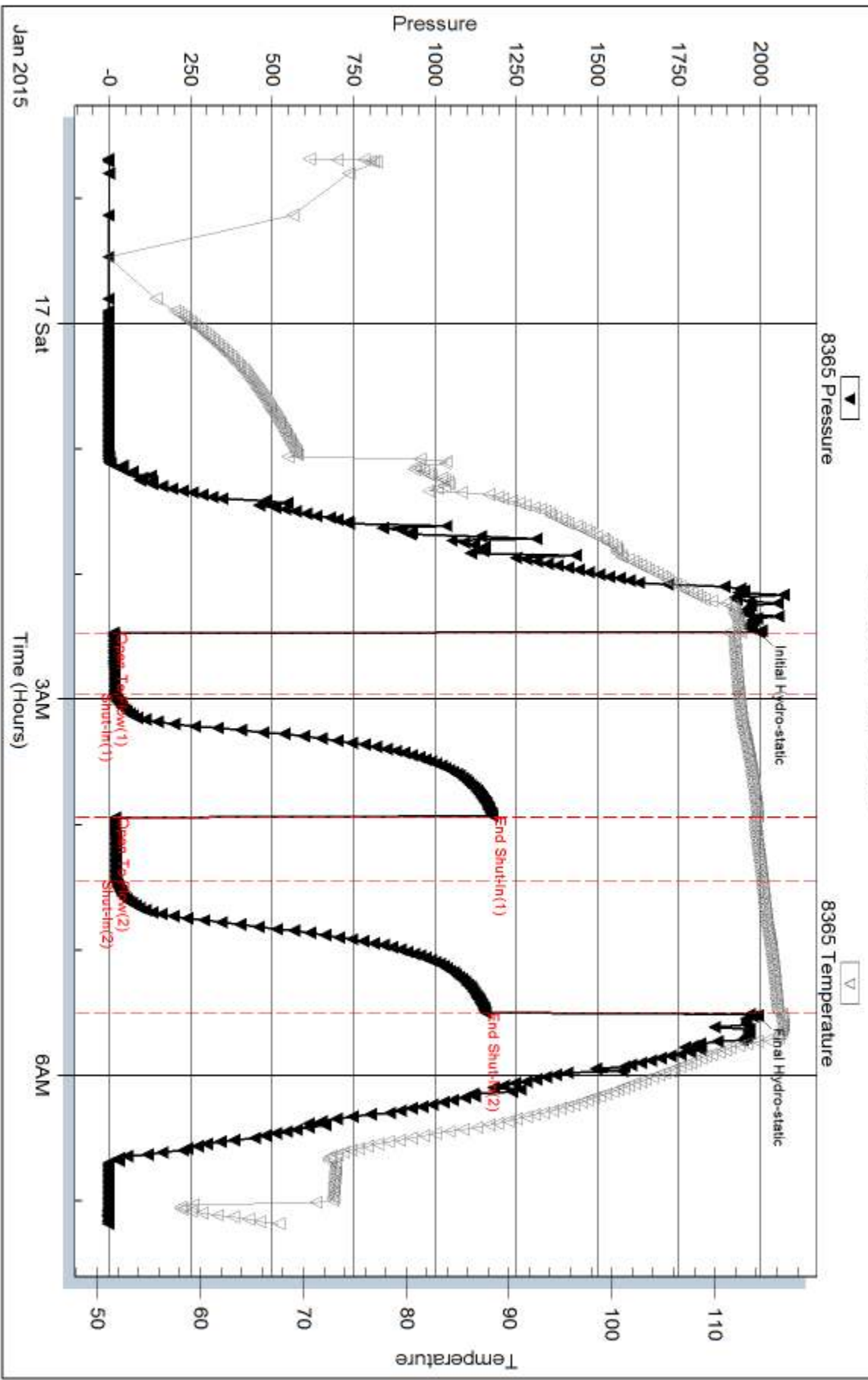
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



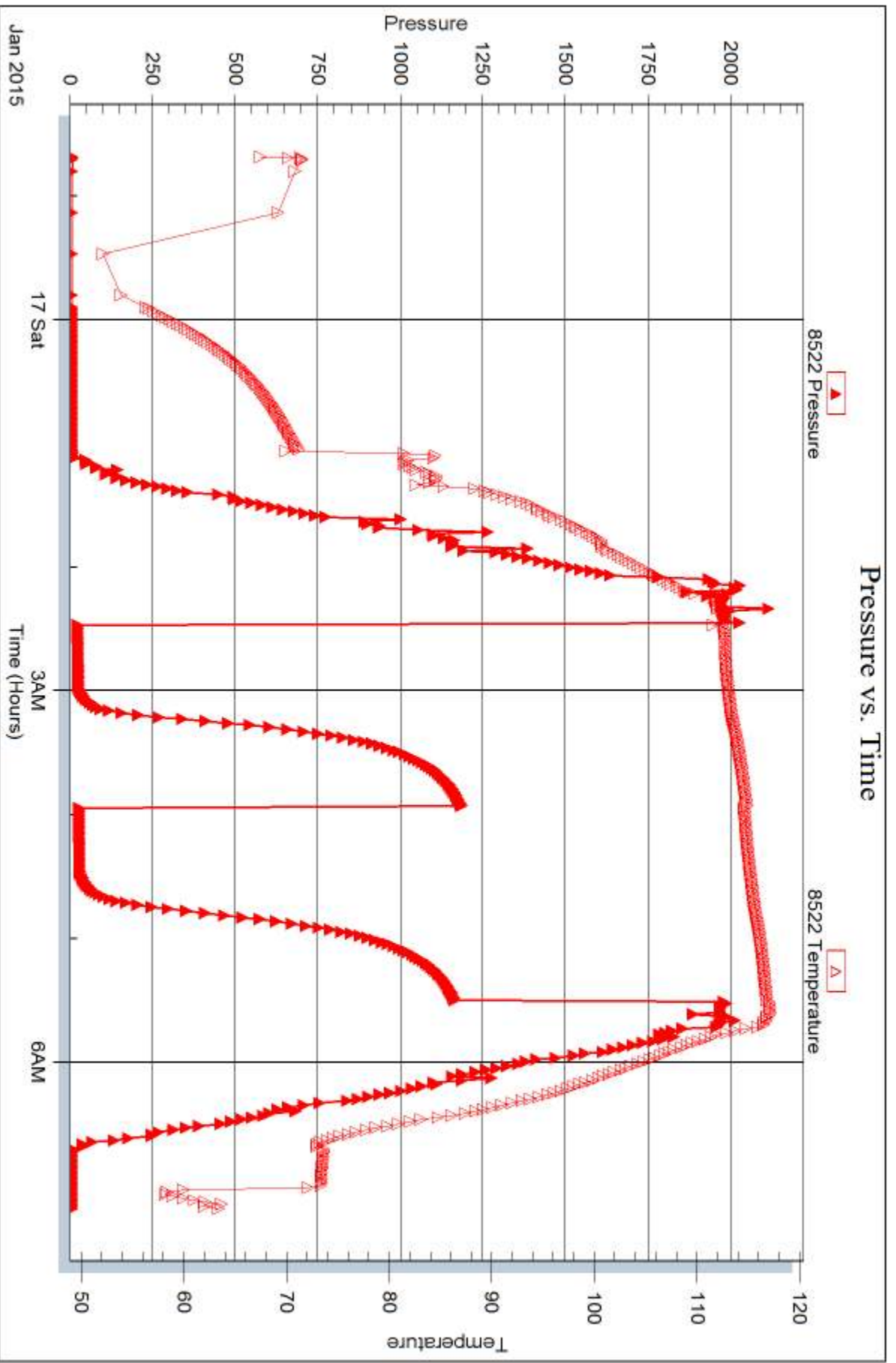


Serial #: 8522

Outside Murfin Drilling Co.

Abell Ranch #3-25

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 59564

Printed: 2015.01.22 @ 15:38:07



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Abell Ranch #3-25**

### **25 12s 31w Gove,KS**

Start Date: 2015.01.17 @ 20:35:00

End Date: 2015.01.18 @ 04:42:15

Job Ticket #: 59565                      DST #: 4

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

Printed: 2015.01.22 @ 15:37:42



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59565

**DST#: 4**

ATTN: Jeff Christian

Test Start: 2015.01.17 @ 20:35:00

## GENERAL INFORMATION:

Formation: **LKC H-K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:43:15

Time Test Ended: 04:42:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4043.00 ft (KB) To 4164.00 ft (KB) (TVD)**

Reference Elevations: 2852.00 ft (KB)

Total Depth: 4164.00 ft (KB) (TVD)

2841.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 311.72 psig @ 4044.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.17

End Date:

2015.01.18

Last Calib.:

2015.01.18

Start Time: 20:34:05

End Time:

04:41:14

Time On Btm:

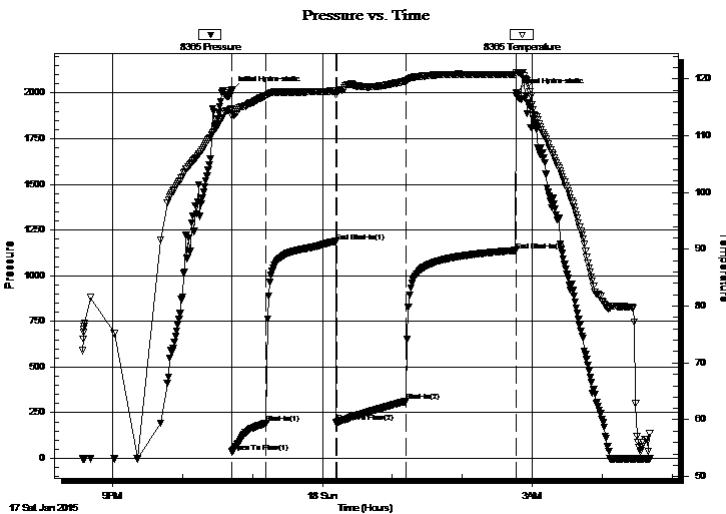
2015.01.17 @ 22:42:00

Time Off Btm:

2015.01.18 @ 02:46:30

**TEST COMMENT:** IF: BOB @ 23 min.  
IS: No return.  
FF: BOB @ 50 min.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2015.42	114.64	Initial Hydro-static
1	34.91	113.48	Open To Flow (1)
30	191.99	116.99	Shut-In(1)
90	1187.92	117.84	End Shut-In(1)
90	196.36	117.60	Open To Flow (2)
150	311.72	119.59	Shut-In(2)
244	1138.54	120.72	End Shut-In(2)
245	2002.06	121.13	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
645.00	mcw 45m 55w ( oils spots in tool)	6.52

## 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.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59565

**DST#: 4**

ATTN: Jeff Christian

Test Start: 2015.01.17 @ 20:35:00

## Tool Information

Drill Pipe:	Length: 3765.00 ft	Diameter: 3.80 inches	Volume: 52.81 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: 278.00 ft	Diameter: 2.25 inches	Volume: 1.37 bbl	Weight to Pull Loose:	85000.00 lb
			<u>Total Volume: 54.18 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	69000.00 lb
Depth to Top Packer:	4043.00 ft			Final	72000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	121.00 ft				
Tool Length:	148.00 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			4017.00	
Shut In Tool	5.00			4022.00	
Hydraulic tool	5.00			4027.00	
Jars	5.00			4032.00	
Safety Joint	2.00			4034.00	
Packer	5.00			4039.00	27.00 Bottom Of Top Packer
Packer	4.00			4043.00	
Stubb	1.00			4044.00	
Recorder	0.00	8365	Inside	4044.00	
Recorder	0.00	8522	Outside	4044.00	
Perforations	21.00			4065.00	
Change Over Sub	1.00			4066.00	
Drill Pipe	94.00			4160.00	
Change Over Sub	1.00			4161.00	
Bullnose	3.00			4164.00	121.00 Bottom Packers & Anchor

**Total Tool Length: 148.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co.

**25 12s 31w Gove,KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59565

**DST#: 4**

ATTN: Jeff Christian

Test Start: 2015.01.17 @ 20:35:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

72000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2300.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
645.00	mcw 45m 55w ( oils spots in tool)	6.515

Total Length: 645.00 ft      Total Volume: 6.515 bbl

Num Fluid Samples: 0

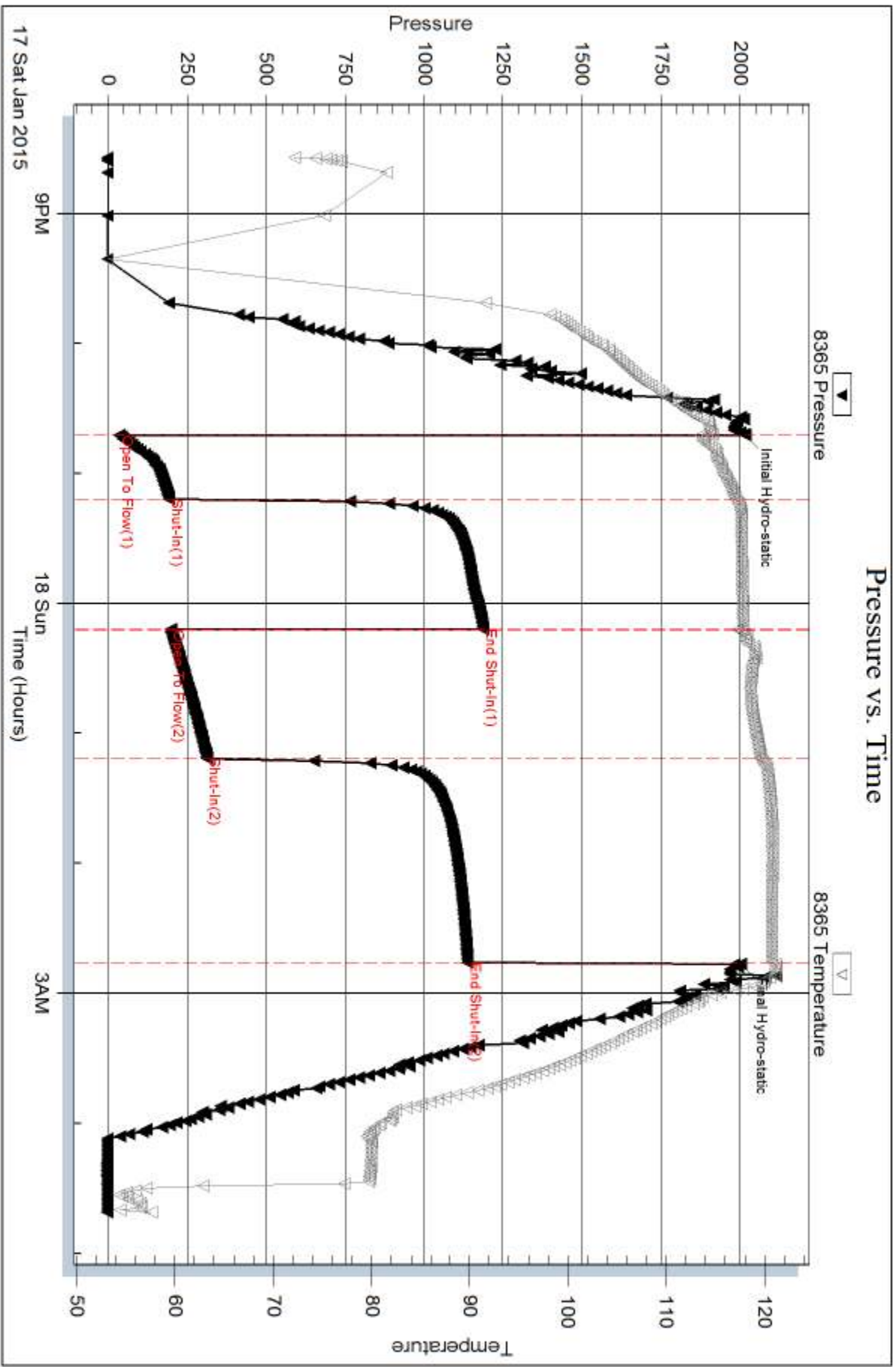
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .170 @ 45f = 72000ppm

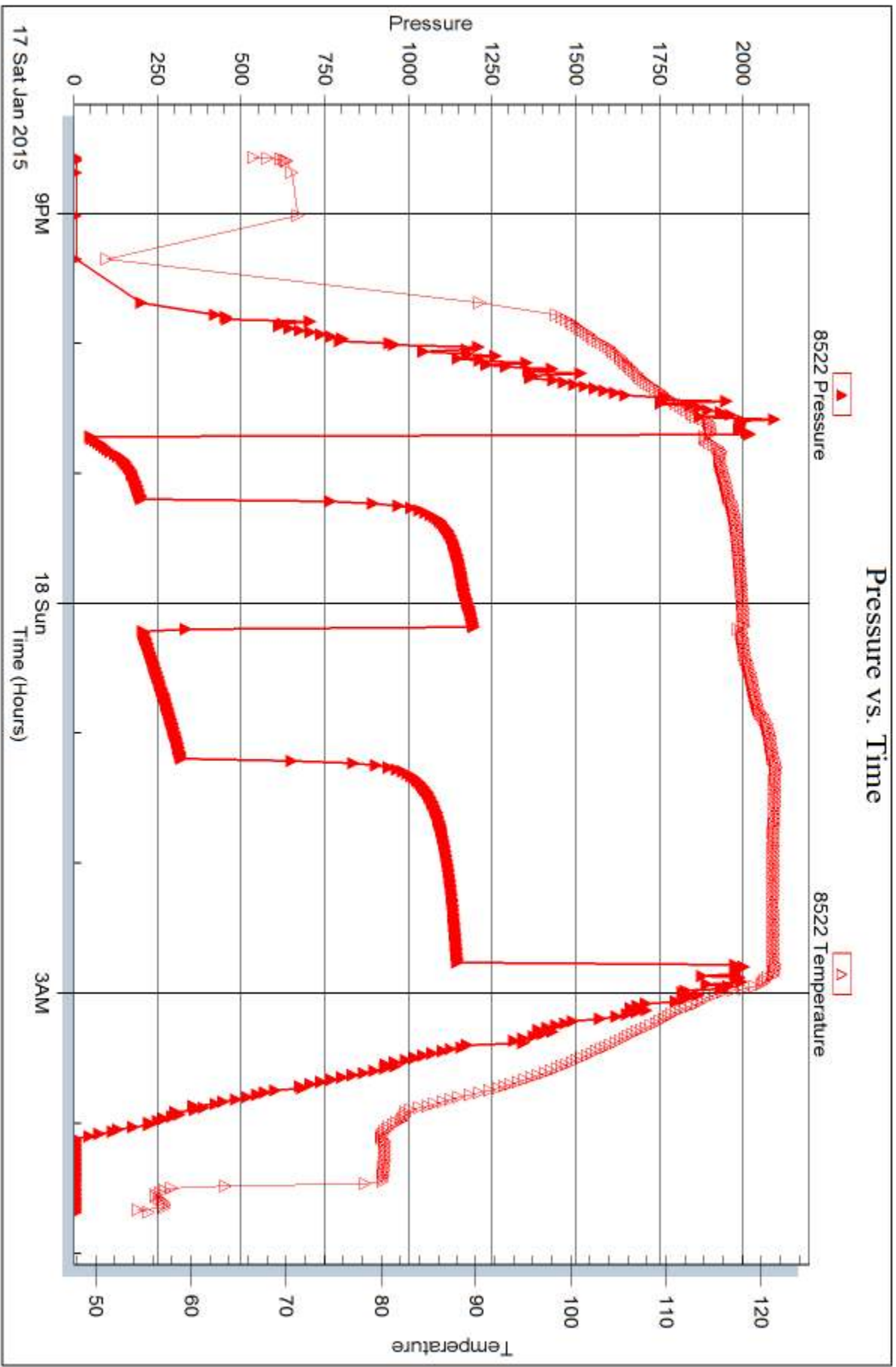


Serial #: 8522

Outside Murfin Drilling Co.

Abell Ranch #3-25

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 59565

Printed: 2015.01.22 @ 15:37:44





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Abell Ranch #3-25**

### **25 12s 31w Gove,KS**

Start Date: 2015.01.19 @ 05:43:00

End Date: 2015.01.19 @ 14:06:45

Job Ticket #: 59566                      DST #: 5

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

Printed: 2015.01.22 @ 15:37:20



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59566

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2015.01.19 @ 05:43:00

## GENERAL INFORMATION:

Formation: **Ft. Scott - Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:56:15

Time Test Ended: 14:06:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4372.00 ft (KB) To 4468.00 ft (KB) (TVD)**

Reference Elevations: 2852.00 ft (KB)

Total Depth: 4468.00 ft (KB) (TVD)

2841.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 151.44 psig @ 4373.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.19

End Date:

2015.01.19

Last Calib.:

2015.01.19

Start Time: 05:43:05

End Time:

14:06:44

Time On Btm:

2015.01.19 @ 07:56:00

Time Off Btm:

2015.01.19 @ 11:59:30

## TEST COMMENT:

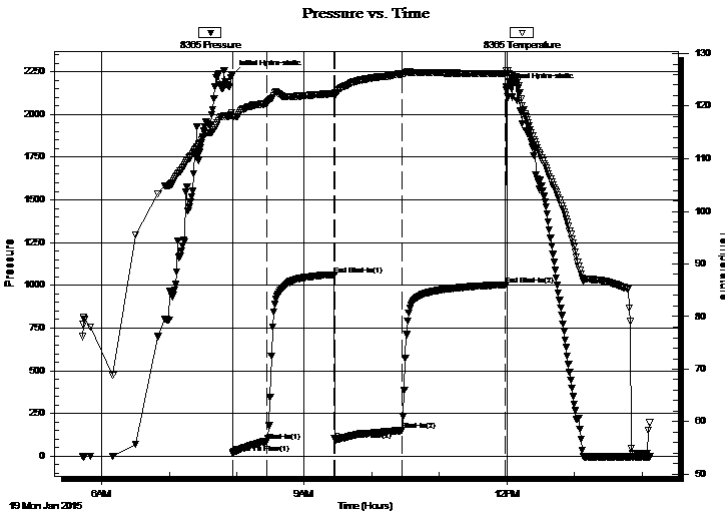
IF: 6" blow.

IS: Surface return, died @ 20 min.

FF: 9" blow.

FS: 1/2" return, receded to surface.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2231.84	118.76	Initial Hydro-static
1	19.28	117.92	Open To Flow (1)
31	87.18	120.61	Shut-In(1)
91	1062.68	122.36	End Shut-In(1)
91	96.17	122.25	Open To Flow (2)
151	151.44	126.13	Shut-In(2)
243	1003.81	126.21	End Shut-In(2)
244	2159.86	126.77	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	gw ocm 15g 20w 25o 40m	0.59
135.00	gocm 10g 40o 50m	0.66
95.00	go 10g 90o	1.12
0.00	280' GIP	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.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59566

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2015.01.19 @ 05:43:00

## Tool Information

Drill Pipe:	Length: 4077.00 ft	Diameter: 3.80 inches	Volume: 57.19 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: 278.00 ft	Diameter: 2.25 inches	Volume: 1.37 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 58.56 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4372.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	96.00 ft			
Tool Length:	123.00 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			4346.00	
Shut In Tool	5.00			4351.00	
Hydraulic tool	5.00			4356.00	
Jars	5.00			4361.00	
Safety Joint	2.00			4363.00	
Packer	5.00			4368.00	27.00 Bottom Of Top Packer
Packer	4.00			4372.00	
Stubb	1.00			4373.00	
Recorder	0.00	8365	Inside	4373.00	
Recorder	0.00	8522	Outside	4373.00	
Perforations	27.00			4400.00	
Change Over Sub	1.00			4401.00	
Drill Pipe	63.00			4464.00	
Change Over Sub	1.00			4465.00	
Bullnose	3.00			4468.00	96.00 Bottom Packers & Anchor

**Total Tool Length: 123.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**25 12s 31w Gove,KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59566

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2015.01.19 @ 05:43:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

25 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	gw ocm 15g 20w 25o 40m	0.590
135.00	gocm 10g 40o 50m	0.664
95.00	go 10g 90o	1.123
0.00	280' GIP	0.000

Total Length: 350.00 ft

Total Volume: 2.377 bbl

Num Fluid Samples: 0

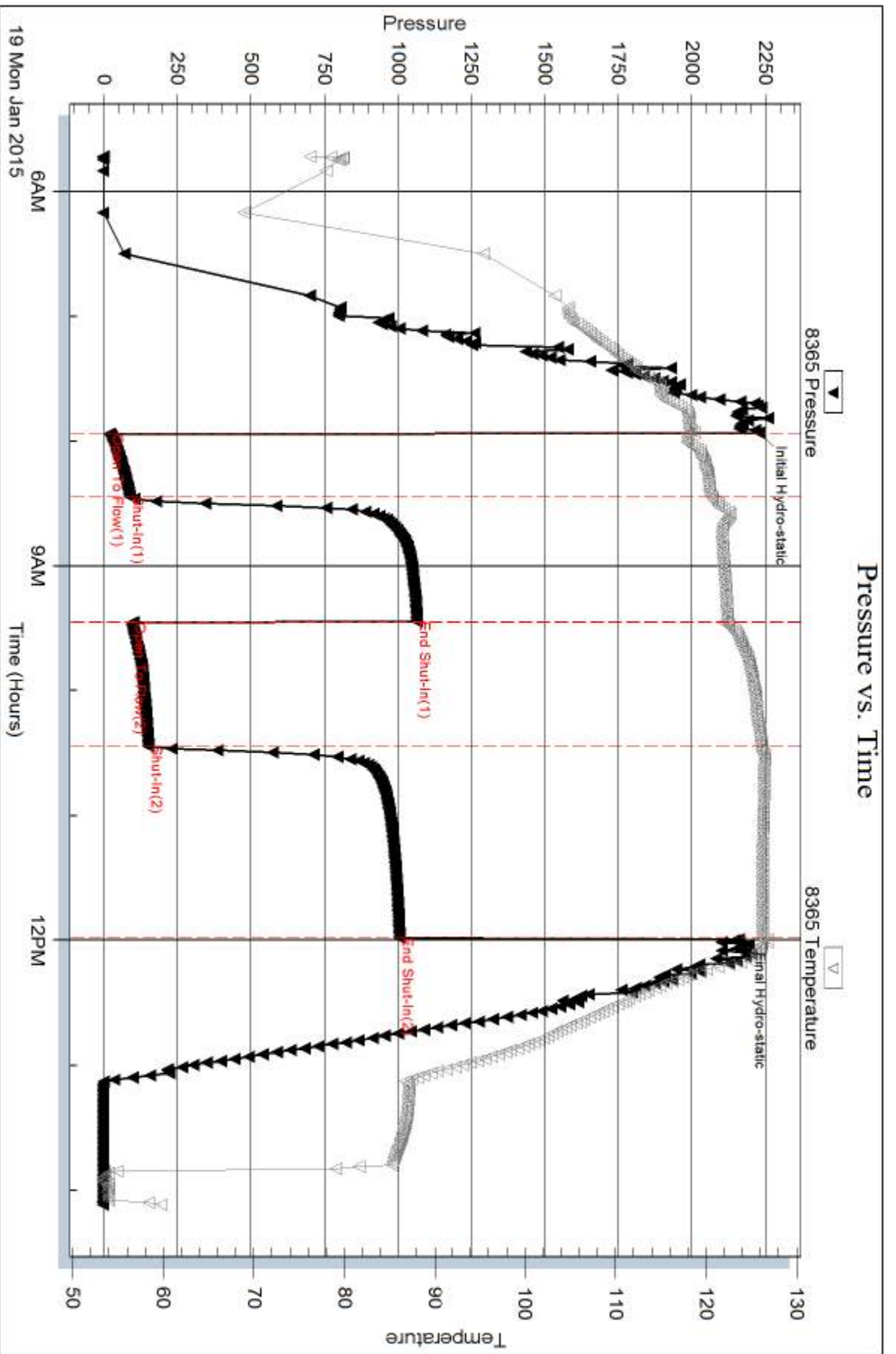
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

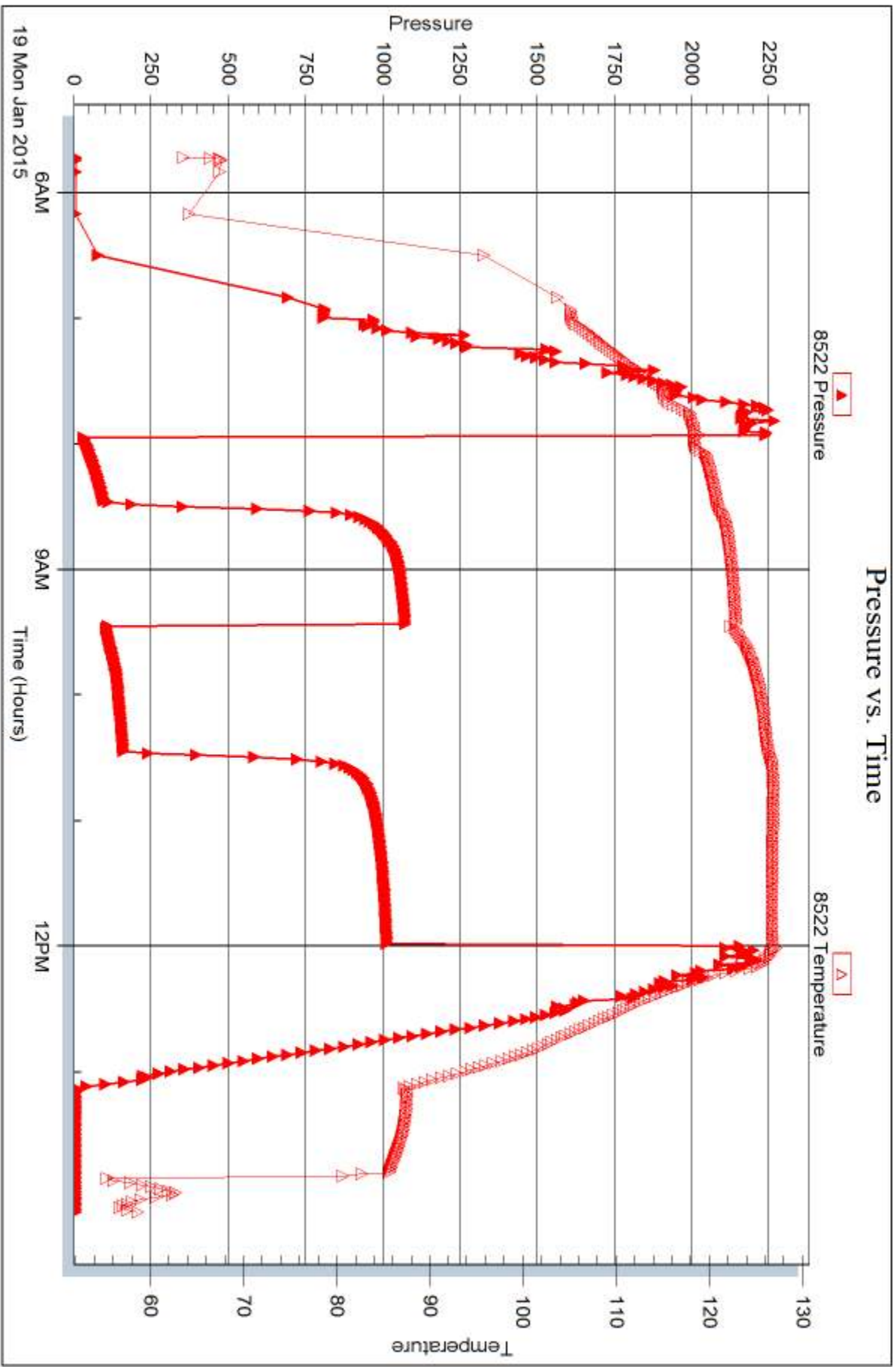


Serial #: 8522

Outside Murfin Drilling Co.

Abell Ranch #3-25

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 59566

Printed: 2015.01.22 @ 15:37:22



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Abell Ranch #3-25**

### **25 12s 31w Gove,KS**

Start Date: 2015.01.19 @ 21:57:00

End Date: 2015.01.20 @ 06:38:15

Job Ticket #: 59567                      DST #: 6

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

Printed: 2015.01.22 @ 15:36:42





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59567

**DST#: 6**

ATTN: Jeff Christian

Test Start: 2015.01.19 @ 21:57:00

## GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:21:30

Time Test Ended: 06:38:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4492.00 ft (KB) To 4508.00 ft (KB) (TVD)**

Reference Elevations: 2852.00 ft (KB)

Total Depth: 4508.00 ft (KB) (TVD)

2841.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 278.64 psig @ 4493.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.19

End Date:

2015.01.20

Last Calib.: 2015.01.20

Start Time: 21:57:05

End Time:

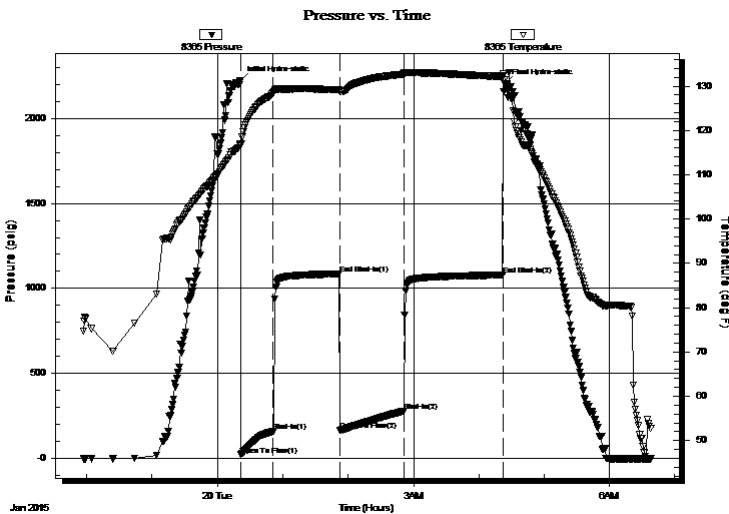
06:38:15

Time On Btm: 2015.01.20 @ 00:21:00

Time Off Btm: 2015.01.20 @ 04:23:45

TEST COMMENT: IF: 8" blow.  
IS: Surface return.  
FF: 9" blow.  
FS: Surface return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2224.87	117.00	Initial Hydro-static
1	20.39	116.50	Open To Flow (1)
30	158.50	128.52	Shut-In(1)
91	1084.80	129.16	End Shut-In(1)
92	163.64	128.82	Open To Flow (2)
151	278.64	132.74	Shut-In(2)
241	1078.61	132.23	End Shut-In(2)
243	2207.24	131.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
570.00	somcw 1o 5m 94w	5.46
45.00	oil 100o	0.63
0.00	135' GIP	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59567

**DST#: 6**

ATTN: Jeff Christian

Test Start: 2015.01.19 @ 21:57:00

## GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:21:30

Time Test Ended: 06:38:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4492.00 ft (KB) To 4508.00 ft (KB) (TVD)**

Reference Elevations: 2852.00 ft (KB)

Total Depth: 4508.00 ft (KB) (TVD)

2841.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8522 Outside**

Press@RunDepth: psig @ 4493.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.19

End Date:

2015.01.20

Last Calib.:

2015.01.20

Start Time: 21:57:05

End Time:

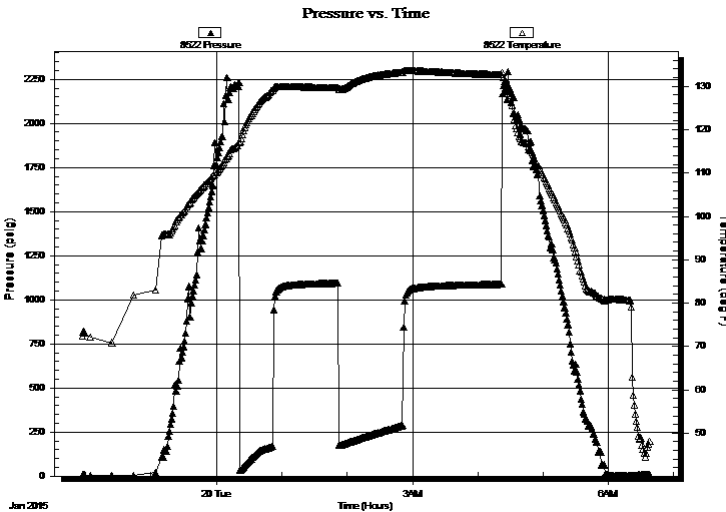
06:38:15

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 8" blow.  
IS: Surface return.  
FF: 9" blow.  
FS: Surface return.

## PRESSURE SUMMARY



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

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
570.00	somcw 1o 5m 94w	5.46
45.00	oil 100o	0.63
0.00	135' GIP	0.00

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.

**25 12s 31w Gove, KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59567

**DST#: 6**

ATTN: Jeff Christian

Test Start: 2015.01.19 @ 21:57:00

## Tool Information

Drill Pipe:	Length: 4204.00 ft	Diameter: 3.80 inches	Volume: 58.97 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: 278.00 ft	Diameter: 2.25 inches	Volume: 1.37 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 60.34 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4492.00 ft			Final	72000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	16.00 ft				
Tool Length:	43.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			4466.00	
Shut In Tool	5.00			4471.00	
Hydraulic tool	5.00			4476.00	
Jars	5.00			4481.00	
Safety Joint	2.00			4483.00	
Packer	5.00			4488.00	27.00 Bottom Of Top Packer
Packer	4.00			4492.00	
Stubb	1.00			4493.00	
Recorder	0.00	8365	Inside	4493.00	
Recorder	0.00	8522	Outside	4493.00	
Perforations	12.00			4505.00	
Bullnose	3.00			4508.00	16.00 Bottom Packers & Anchor

**Total Tool Length: 43.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**25 12s 31w Gove,KS**

250 N Water STE 300  
Wichita, KS 67202

**Abell Ranch #3-25**

Job Ticket: 59567

**DST#: 6**

ATTN: Jeff Christian

Test Start: 2015.01.19 @ 21:57:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 50.00 sec/qt  
Water Loss: 7.19 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 2100.00 ppm  
Filter Cake: 2.00 inches

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

Oil API: 29 deg API  
Water Salinity: 28000 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
570.00	somcw 1o 5m 94w	5.463
45.00	oil 100o	0.631
0.00	135' GIP	0.000

Total Length: 615.00 ft      Total Volume: 6.094 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

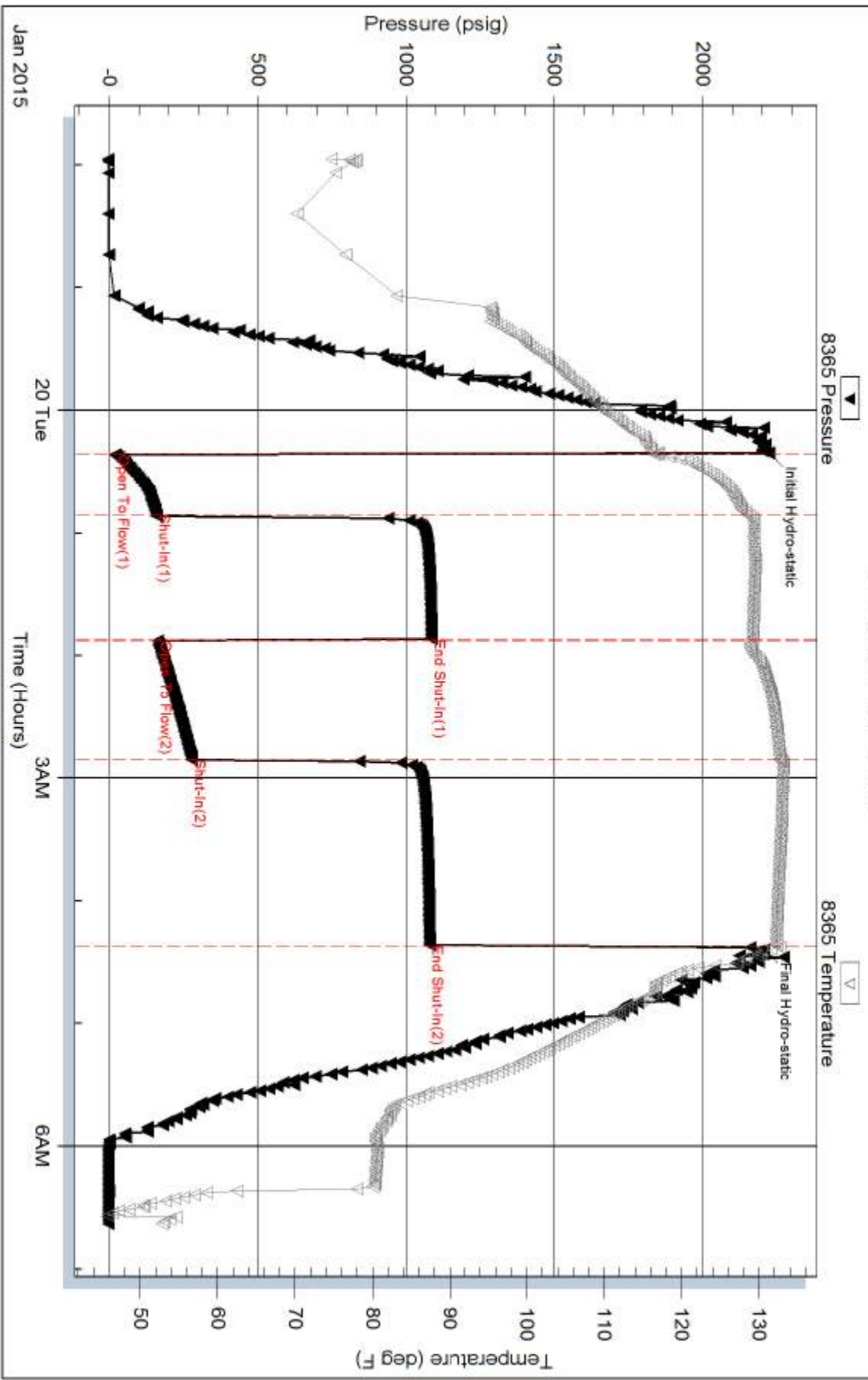
Serial #:

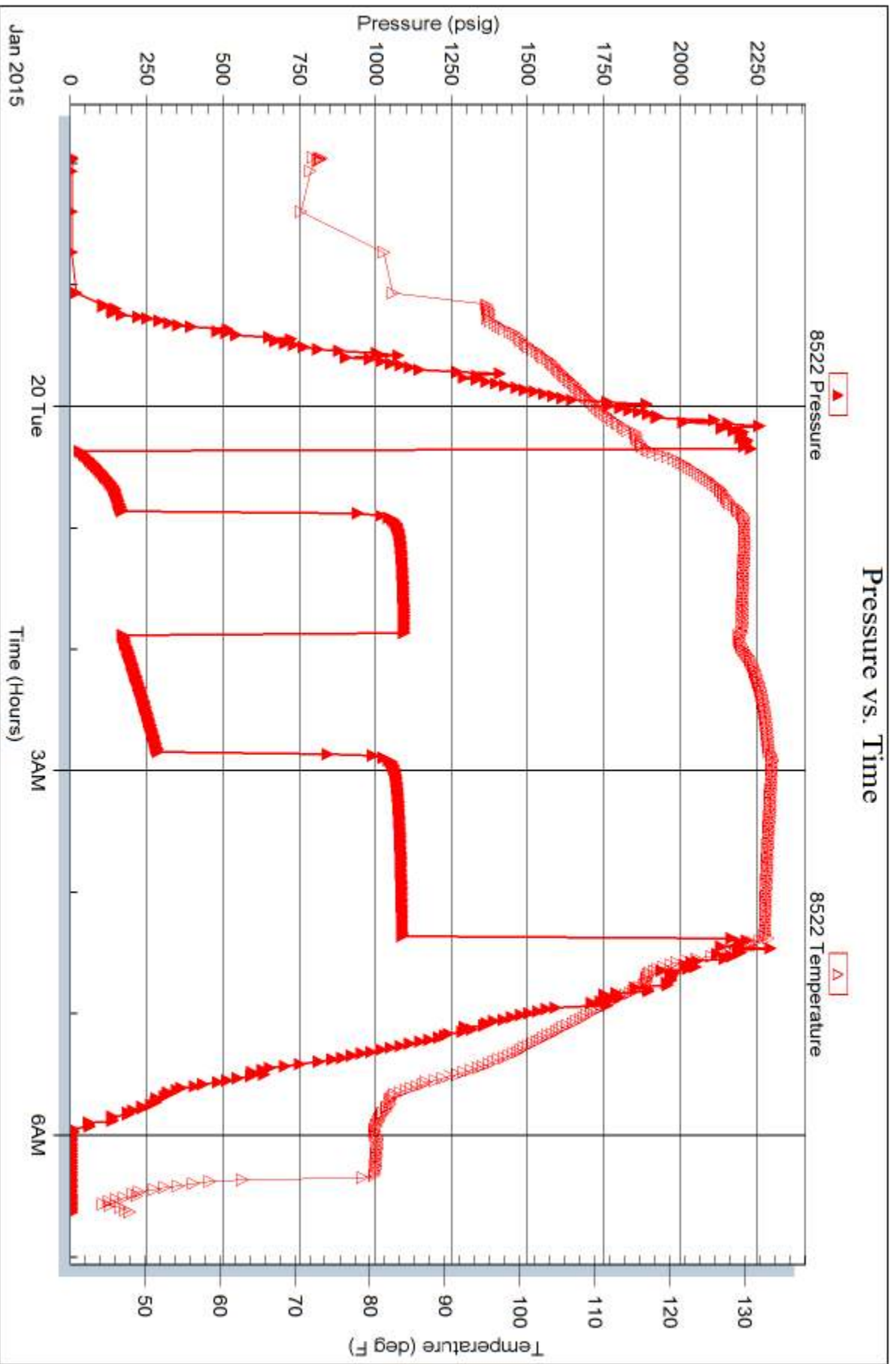
Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .340 @ 50F = 28000ppm

### Pressure vs. Time







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **59562**

4/10

Well Name & No. Abell Ranch 3-25 Test No. 1 Date 1/15/2015  
 Company Murfin Drilling Co, Inc Elevation 2852 KB 2841 GL  
 Address 250 N Water Ste 300 Wichita, Ks 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin 21  
 Location: Sec. 25 Twp. 12s Rge. 31w Co. Lecompton Gore State Ks

Interval Tested 3752 - 3810 Zone Tested Lecompton  
 Anchor Length 58' Drill Pipe Run 3450 Mud Wt. 9.0  
 Top Packer Depth 3747 Drill Collars Run 278 Vis 66  
 Bottom Packer Depth 3752 Wt. Pipe Run Ø WL 5.6  
 Total Depth 3810 Chlorides 2700 ppm System LCM 4#

Blow Description JF! 2 1/2" blow.  
ISI! No return.  
FF: 2 1/2" blow.  
FSI! No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>325</u>	<u>WCM</u>			<u>30</u>	<u>70</u>
	<u>OIL SPOTS</u>				

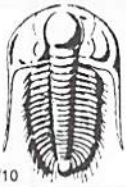
Rec Total 325 BHT 115 Gravity — API RW .320 @ 39 °F Chlorides 40,000 ppm  
 (A) Initial Hydrostatic 1839  Test 1050 T-On Location 1000  
 (B) First Initial Flow 15  Jars 250 T-Started 1008  
 (C) First Final Flow 81  Safety Joint 75 T-Open 1304  
 (D) Initial Shut-In 1169  Circ Sub N/C T-Pulled 1704  
 (E) Second Initial Flow 86  Hourly Standby \_\_\_\_\_ T-Out 1905  
 (F) Second Final Flow 163  Mileage 91 RT 91 Comments \_\_\_\_\_  
 (G) Final Shut-In 1153  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1775  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 60  Day Standby \_\_\_\_\_ Total 1466  
 Final Shut-In 90  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1466

Approved By \_\_\_\_\_ Our Representative Bob [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. **59563**

4/10

Well Name & No. Abell Ranch 3-25 Test No. 2 Date 1/16/2015  
 Company Murfin Drilling Co, Inc. Elevation 2852 KB 2841 GL  
 Address 250 N Water Ste. 300 Wichita, Ks 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin 21  
 Location: Sec. 25 Twp. 12s Rge. 31w Co. Gove State Ks

Interval Tested 3926-3974 Zone Tested LKC B-D  
 Anchor Length 48 Drill Pipe Run 3640 Mud Wt. 9.1  
 Top Packer Depth 3921 Drill Collars Run 278 Vis 50  
 Bottom Packer Depth 3926 Wt. Pipe Run Ø WL 6.0  
 Total Depth 3974 Chlorides 1600 ppm System LCM 4#

Blow Description IF: 1/4" blow receded to a weak surface blow.  
ISI: No return.  
FF: No blow  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>50</u>	<u>SOCM</u>	<u>1</u>		<u>99</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 50 BHT 116 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1960 ~~1712~~  Test 1050 T-On Location 1000  
 (B) First Initial Flow 16 ~~19~~  Jars 250 T-Started 1021  
 (C) First Final Flow 32  Safety Joint 75 T-Open 1226  
 (D) Initial Shut-In 1166  Circ Sub N/C T-Pulled 1526  
 (E) Second Initial Flow 34  Hourly Standby \_\_\_\_\_ T-Out 1712  
 (F) Second Final Flow 42  Mileage 9124 91 Comments \_\_\_\_\_  
 (G) Final Shut-In 1136  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1929  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_

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

Sub Total 1466 Total 1466 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 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. **59564**

Well Name & No. Abell Ranch 3-25 Test No. 3 Date 1/17/2015  
 Company Murfin Drilling Co, Inc Elevation 2452 KB 2841 GL  
 Address 250 N Water Ste 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin 21  
 Location: Sec. 25 Twp. 12s Rge. 31w Co. Gove State KS

Interval Tested 3974 - 4005 Zone Tested LKC EBF  
 Anchor Length 31 Drill Pipe Run 3702 Mud Wt. 9.4  
 Top Packer Depth 3969 Drill Collars Run 278 Vis 52  
 Bottom Packer Depth 3974 Wt. Pipe Run 0 WL 6.0  
 Total Depth 4005 Chlorides 1600 ppm System LCM 4#

Blow Description IF: Surface blow, died @ 5 min.  
ISI: No return.  
FF: No blow  
FBI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>MUD</u>			<u>100</u>	
	<u>(OIL SPOTS)</u>				

Rec Total 10 BHT 116 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1997</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2245</u>
(B) First Initial Flow <u>13</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2241</u>
(C) First Final Flow <u>17</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0228</u>
(D) Initial Shut-In <u>1178</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>0528</u>
(E) Second Initial Flow <u>18</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0711</u>
(F) Second Final Flow <u>20</u>	<input checked="" type="checkbox"/> Mileage <u>91 RT 91</u>	Comments
(G) Final Shut-In <u>1158</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1993</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>1566</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1566</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. **59565**

Well Name & No. Abell Ranch 3-25 Test No. 4 Date 1/18/2015  
 Company Moran Drilling Co, Inc Elevation 2852 KB 2841 GL  
 Address 250 N Water Ste 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Moran 21  
 Location: Sec. 25 Twp. 12S Rge. 31W Co. Gove State Ks

Interval Tested 4043 - 4164 Zone Tested LKC H-K  
 Anchor Length 121 Drill Pipe Run 3765 Mud Wt. 9.3  
 Top Packer Depth 4038 Drill Collars Run 278 Vis 50  
 Bottom Packer Depth 4043 Wt. Pipe Run 0 WL 6.0  
 Total Depth 4164 Chlorides 2300 ppm System LCM 4#

Blow Description IF: BOB@ 23 min  
ISI: No return.  
FF: BOB@ 50 min.  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>645</u>	<u>MCW</u>		<u>55</u>	<u>45</u>	
	<u>oil spots in tool</u>				

Rec Total 645 BHT 121 Gravity — API RW 170 @ 45 °F Chlorides 72,000 ppm

(A) Initial Hydrostatic <u>2015</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2030</u>
(B) First Initial Flow <u>35</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2041</u>
(C) First Final Flow <u>192</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2241</u>
(D) Initial Shut-In <u>1198</u>	<input checked="" type="checkbox"/> Circ Sub <u>MC</u>	T-Pulled <u>0241</u>
(E) Second Initial Flow <u>196</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0441</u>
(F) Second Final Flow <u>312</u>	<input checked="" type="checkbox"/> Mileage <u>91 RT 91</u>	Comments
(G) Final Shut-In <u>1139</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2002</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>1566</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1566</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. 59566

4/10

Well Name & No. Abell Ranch 3-25 Test No. 5 Date 1/19/2015  
 Company Muffin Drilling Co., Inc Elevation 2852 KB 2841 GL  
 Address 250 N Water St 300 Wichita, ks 67202  
 Co. Rep / Geo. Jeff Christian Rig Muffin 2+  
 Location: Sec. 25 Twp. 12s Rge. 31w Co. Gove State ks

Interval Tested 4372 - 4468 Zone Tested Ft Scott - Johnson  
 Anchor Length 96' Drill Pipe Run 4077 Mud Wt. 9.2  
 Top Packer Depth 4367 Drill Collars Run 278 Vis 54  
 Bottom Packer Depth 4372 Wt. Pipe Run 0 WL 60  
 Total Depth 4468 Chlorides 2,000 ppm System LCM 4#

Blow Description IF: 6" blow  
ISF: ~~no return~~ surface return, died @ 20 min.  
FF: 9" blow  
FSI: 1/2" return, receded to a surface blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>95</u>	<u>60</u>	<u>10</u>	<u>90</u>		
<u>135</u>	<u>60cm</u>	<u>10</u>	<u>40</u>		<u>50</u>
<u>120</u>	<u>6W0cm</u>	<u>15</u>	<u>25</u>	<u>20</u>	<u>40</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>280' GIP</u>	%gas	%oil	%water	%mud

Rec Total 350 BHT 126 Gravity 25 API RW —@ —° F Chlorides — ppm

(A) Initial Hydrostatic <u>2232</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0530</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0543</u>
(C) First Final Flow <u>87</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0757</u>
(D) Initial Shut-In <u>1063</u>	<input checked="" type="checkbox"/> Circ Sub <u>NK</u>	T-Pulled <u>1157</u>
(E) Second Initial Flow <u>96</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1407</u>
(F) Second Final Flow <u>151</u>	<input checked="" type="checkbox"/> Mileage <u>91 AT 91</u>	Comments
(G) Final Shut-In <u>1004</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2160</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>1566</u>
Final Flow <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
Final Shut-In <u>90</u>	Sub Total <u>1566</u>	

Approved By \_\_\_\_\_ Our Representative Brian [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. **59567**

Well Name & No. Abell Ranch 3-25 Test No. 6 Date 1/20/2014  
 Company Murfin Drilling, Inc Elevation 2852 KB 2841 GL  
 Address 250 N Water Ste 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin 21  
 Location: Sec. 25 Twp. 12S Rge. 31W Co. Gove State KS

Interval Tested 4372 - 4468 4492 Zone Tested Mississippian  
 Anchor Length 96' Drill Pipe Run 4204 Mud Wt. 9.0  
 Top Packer Depth 4367 4487 Drill Collars Run 278 Vis 50  
 Bottom Packer Depth 4372 4492 Wt. Pipe Run 8 WL 7.2  
 Total Depth 4468 4508 Chlorides 2100 ppm System LCM 3#

Blow Description IF: 8" blow  
ISI: surface return.  
FF: 9" blow  
FSI: surface return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>OIL</u>	<u>100</u>			
<u>5700</u>	<u>SOMCOW</u>	<u>1</u>	<u>94</u>	<u>5</u>	
Rec Total	<u>615</u>				

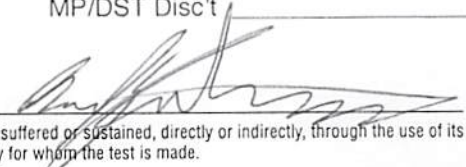
(A) Initial Hydrostatic	<u>2225</u>
(B) First Initial Flow	<u>20</u>
(C) First Final Flow	<u>159</u>
(D) Initial Shut-In	<u>1065</u>
(E) Second Initial Flow	<u>164</u>
(F) Second Final Flow	<u>279</u>
(G) Final Shut-In	<u>1079</u>
(H) Final Hydrostatic	<u>2207</u>
Initial Open	<u>36</u>
Initial Shut-In	<u>60</u>
Final Flow	<u>60</u>
Final Shut-In	<u>90</u>

Gravity 29 API RW 1340 @ 50 °F Chlorides 2130-28,000 ppm

Test 1150  
 Jars 250  
 Safety Joint 75  
 Circ Sub N/C  
 Hourly Standby  
 Mileage 11 RT 91  
 Sampler  
 Straddle  
 Shale Packer  
 Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility

Sub Total 1566

T-On Location 2130  
 T-Started 2157  
 T-Open 0021  
 T-Pulled 0421  
 T-Out 0638  
 Comments \_\_\_\_\_  
 Ruined Shale Packer  
 Ruined Packer  
 Extra Copies  
 Sub Total 0  
 Total 1566  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative 

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.









PO Box 93999  
Southlake, TX 76092

Voice: (817) 546-7282  
Fax: (817) 246-3361

*acct  
Prod-MG*

# INVOICE

Invoice Number: 148197

Invoice Date: Jan 12, 2015

Page: 1

Federal Tax I.D.#: 20-8651475

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

<b>Customer ID</b>	<b>Field Ticket #</b>	<b>Payment Terms</b>	
Murfin	64807	Net 30 Days	
<b>Job Location</b>	<b>Camp Location</b>	<b>Service Date</b>	<b>Due Date</b>
KS1-01	Oakley	Jan 12, 2015	2/11/15

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Abell Ranch #3-25		
170.00	CEMENT MATERIALS	Class A Common	17.90	3,043.00
479.00	CEMENT MATERIALS	Chloride	1.10	526.90
178.50	CEMENT SERVICE	Cubic Feet Charge	2.48	442.68
164.60	CEMENT SERVICE	Ton Mileage Charge	2.75	452.65
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
20.00	CEMENT SERVICE	Pump Truck Mileage	7.70	154.00
1.00	CEMENT SERVICE	Swedge Manifold Rental	275.00	275.00
20.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	88.00
1.00	CEMENT SUPERVISOR	Paul Beaver		
1.00	EQUIPMENT OPERATOR	Tyler Flipse		
1.00	OPERATOR ASSISTANT	Wayne Messalle		

*±D203 3. 0099.0002 4503.44 Cement S. Co. #3-25*

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

\$ 2,273.06 *vol 356*

ONLY IF PAID ON OR BEFORE  
**Feb 11, 2015**

Subtotal	6,494.48
Sales Tax	282.02
Total Invoice Amount	6,776.50
Payment/Credit Applied	
<b>TOTAL</b>	<b>6,776.50</b>

*OV SR -2273.06 4503.44*

# ALLIED OIL & GAS SERVICES, LLC 064807

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT  
Calley KS

DATE <u>1-12-15</u>	SEC. <u>25</u>	TWP. <u>12</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION <u>8:30 am</u>	JOB START <u>9:30 pm</u>	JOB FINISH <u>10:00 pm</u>
LEASE <u>Abell Ranch Well # 3-25</u>				LOCATION <u>Orion 1 1/2 N W into</u>	COUNTY <u>Gov</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)							

CONTRACTOR <u>Murkin Dr</u>	OWNER <u>Same</u>
TYPE OF JOB <u>Surface</u>	
HOLE SIZE <u>12 1/4</u>	T.D. <u>223'</u>
CASING SIZE <u>2 5/8</u>	DEPTH <u>225'</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG. <u>15'</u>	
PERFS.	
DISPLACEMENT <u>13-25 bbl H<sub>2</sub>O</u>	
EQUIPMENT	
PUMP TRUCK # <u>913281</u>	CEMENTER <u>Paul Deaver</u>
	HELPER <u>Yur Apple / Juan 3</u>
BULK TRUCK # <u>8911310</u>	DRIVER <u>Wayne Messalles</u>
BULK TRUCK #	DRIVER

CEMENT AMOUNT ORDERED	<u>170 sks 6m 3/4 CC</u>	
COMMON	<u>170 sks @ 17.90</u>	<u>3043.00</u>
POZMIX		
GEL		
CHLORIDE	<u>479 # @ 1.10</u>	<u>526.90</u>
ASC		
Material total		<u>3569.90</u>
<u>(1249.46 / 35%)</u>		
HANDLING	<u>178.50 # @ 2.48</u>	<u>442.68</u>
MILEAGE	<u>8.23 hrs @ 20 min @ 27.5</u>	<u>452.65</u>
TOTAL		

REMARKS:  
mix 170 sks  
Displace w/ 13-25 bbl H<sub>2</sub>O  
cement did circ  
(5 bbl to pit)

SERVICE		
DEPTH OF JOB	<u>225'</u>	
PUMP TRUCK CHARGE	<u>1512.25</u>	
EXTRA FOOTAGE		
MILEAGE <u>MI/V 20</u>	<u>@ 7.70</u>	<u>154.00</u>
MANIFOLD <u>Swedge</u>	<u>@ 275.00</u>	<u>275.00</u>
<u>MI-V 20</u>	<u>@ 9.40</u>	<u>88.00</u>
<u>(1023.00 / 35%)</u>		
TOTAL		<u>2924.00</u>

CHARGE TO: Murkin Dr

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT		
TOTAL		

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (IF Any)	
TOTAL CHARGES	<u>6,494.48</u>
DISCOUNT	<u>2,273.06 (35%) IF PAID IN 30 DAYS</u>
	<u>4,221.41 Net.</u>

PRINTED NAME Juan Tinoco

SIGNATURE Juan Tinoco



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



# Invoice

DATE	INVOICE #
1/21/2015	26986

BILL TO
Murfin Drilling Co Inc P. O. Box 130 Hill City, KS 67642-0130
USED FOR
APPROVED

- Acidizing
- Cement
- Tool Rental

USED FOR IC 103  
APPROVED J.T. R

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-25	Abell Ranch	Gove	Company Tools	Oil	Development	LongString	Nick
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				60	Miles	6.00	360.00
578D-L	Pump Charge - Long String - 4600 Feet				1	Job	1,500.00	1,500.00
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
280	Flocheck 21				500	Gallon(s)	3.00	1,500.00T
290	D-Air				2	Gallon(s)	42.00	84.00T
403-5	5 1/2" Cement Basket				1	Each	300.00	300.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	275.00	275.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	375.00	375.00T
409-5	5 1/2" Turbolizer				10	Each	90.00	900.00T
413-5	5 1/2" Roto Wall Scratcher				20	Each	40.00	800.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
404-5	5 1/2" Port Collar				1	Each	2,900.00	2,900.00T
325	Standard Cement				225	Sacks	14.50	3,262.50T
276	Flocele				50	Lb(s)	2.50	125.00T
283	Salt				1,150	Lb(s)	0.20	230.00T
284	Calseal				11	Sack(s)	35.00	385.00T
285	CFR-1				150	Lb(s)	4.50	675.00T
581D	Service Charge Cement				225	Sacks	2.00	450.00
583D	Drayage				708	Ton Miles	1.00	708.00
	Subtotal							15,129.50
	Sales Tax Gove County						7.90%	956.81
	<i>IC103 2 0099.0002.1</i>				<i>16,086.31</i>	<i>Cement Prod Csg #3-25</i>		

**Thank You For Your Business In 2014!**  
**We Look Forward To Serving You In 2015!**

**Total** \$16,086.31





Services, Inc.

CHARGE TO: Murkin Dely Co. Inc  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP CODE: \_\_\_\_\_

TICKET 26986

PAGE 1 OF 2

1. <u>Hays, KS</u>	WELL PROJECT NO. <u>H3-25</u>	LEASE <u>Abell Ranch</u>	COUNTY/PARISH <u>Gove</u>	STATE <u>Ks</u>	CITY _____	DATE <u>1-21-15</u>	OWNER <u>same</u>
2. <u>Ness City, KS</u>	TICKET TYPE <input checked="" type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>Co Tools # 21</u>	RIG NAME NO. _____	SHIPPED VIA <input checked="" type="checkbox"/> TRUCK	DELIVERED TO <u>Location</u>	ORDER NO. _____	
3. _____	WELL TYPE <u>oil</u>	WELL CATEGORY <u>development</u>	JOB PURPOSE <u>longstring</u>	WELL PERMIT NO. _____	WELL LOCATION _____		
4. _____	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	SURVEY			UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY.	UM	QTY.		
575						4111	60	mi			360.00
578						Pump Charge Longstring	1	ea		4600'	1500.00
221						KCL	4	gal			25.00
280						Flocheck-21	500	gal			3.00
290						D-Air	2	gal			42.00
403						Basket	1	ea		5 1/2"	300.00
406						LO Plug + Bar Pile	1	ea			275.00
407						Insert Float Shoe w/ P.I.I	1	ea			375.00
409						Tarbolizers	10	ea			90.00
413						Ratewall Scrappers	20	ea			40.00
419						Rotating Head	1	ea			200.00
404						Part Collar	1	ea			2900.00

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?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PAGE TOTAL 1 9294.50  
 PAGE 2 5833.50  
 Subtotal 15129.50  
 GIVE TAX 7.99.00  
 TOTAL 16,086.31

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side herof 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.

DATE SIGNED 1-21-15 TIME SIGNED 0730  A.M.  P.M.

SWIFT OPERATOR Mike [Signature] APPROVAL \_\_\_\_\_

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

Thank You!



Swanton, Inc.

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

TICKET CONTINUATION

TICKET No. 26986

CUSTOMER  
Murphy D. Co. Inc.

WEIGHT  
Abell Ranch # 3-25

DATE  
1-21-75

PAGE 2 10%

PRICE REFERENCE	SECONDARY REFERENCE / PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WEIGHT			DATE	UNIT PRICE	AMOUNT
		LOC	ACCT	DE			QTY	U/M	QTY			
325		2				Standard Cement	235	sks			14.50	3262.50
276		2				Floce/e	50	#	4	#/sk	2.50	125.00
283		2				Salt	1150	#	10	%	20	230.00
284		2				Cal Seal	11	sks	5	%	35.00	385.00
285		2				REF-1	150	#	3/4	%	4.50	675.00
581		2									2.00	452.00
583		2									1.00	708.00

SERVICE CHARGE 225 sks  
 MILEAGE CHARGE 2.5000  
 TOTAL WEIGHT 256.00  
 LOADED MILES 60

CUBIC FEET 708  
 TON MILES 708

CONTINUATION TOTAL 5838.00

JOB LOG

SWIFT Services, Inc.

DATE 1-21-15 PAGE NO. 1

CUSTOMER: *Marvin Dtg Co. Inc*

WELL NO. # *3-25*

LEASE *Abell Ranch*

JOB TYPE *Longstring*

TICKET NO. *26986*

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	<i>0200</i>							<i>on loc set up w/ FE</i>
								<i>RTD 4600' LTD 4603'</i> <i>5 1/2" x 15.5" x 4592' x 21</i> <i>Tuba. 1, 2, 3, 4, 5, 7, 9, 11, 13, 53</i> <i>Basket 54</i> <i>Perf Collar 54 @ 2341'</i>
	<i>0300</i>							<i>start FE</i>
	<i>0400</i>							<i>60 pts circ 30 min</i>
	<i>0520</i>							<i>BH on circ 1 hr</i>
	<i>0630</i>	<i>5</i>	<i>0</i>			<i>200</i>		<i>start KCL Flush 15 bbl</i>
		<i>5</i>	<i>15/0</i>			<i>200</i>		<i>start Flushback 500 gal</i>
		<i>5</i>	<i>12/0</i>			<i>200</i>		<i>start KCL flush 5 bbl</i>
		<i>5</i>	<i>5/0</i>			<i>200</i>		<i>start 125 sks EA-2 Cement</i>
	<i>0647</i>		<i>42</i>					<i>End Cement</i> <i>wash Pth</i> <i>Drop L.D. Plug</i>
	<i>0655</i>	<i>6</i>	<i>0</i>			<i>200</i>		<i>start Displacement</i>
	<i>0709</i>	<i>5</i>	<i>80</i>			<i>250</i>		<i>catch Cement</i>
	<i>0715</i>		<i>109</i>			<i>1000/1500</i>		<i>Land Plug</i> <i>Release Pressure</i> <i>Float Held</i>
	<i>0720</i>	<i>7</i>	<i>7/5</i>					<i>Plug BH &amp; MH 30/200 sks EA-2</i>
								<i>Thank you</i>
								<i>Nick, Austin &amp; Prestin</i>



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



# Invoice

DATE	INVOICE #
2/2/2015	27088

BILL TO
Murfin Drilling Co Inc P. O. Box 130 Hill City, KS 67642-0130

- Acidizing
- Cement
- Tool Rental

USED FOR IC 10.3  
APPROVED [Signature]

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-25	AbellRanch	Gove	Company Tools	Injectin	Development	Cement Port Collar	Don

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	60	Miles	5.00	300.00
576D-D	Pump Charge - Port Collar - 2343 Feet	1	Job	1,250.00	1,250.00
279	Bentonite Gel	1	Sack(s)	25.00	25.00T
290	D-Air	2	Gallon(s)	42.00	84.00T
330	Swift Multi-Density Standard (MIDCON II)	175	Sacks	15.75	2,756.25T
276	Flocele	44	Lb(s)	2.25	99.00T
581D	Service Charge Cement	275	Sacks	1.50	412.50
583D	Drayage	820.95	Ton Miles	0.75	615.71
	Subtotal				5,542.46
	Sales Tax Gove County			7.90%	234.18
	IC103 2 0099.0002.1	5776.64			
					Cement Port Collar #3-25

**We Appreciate Your Business!**

**Total**

\$5,776.64



CHARGE TO: Murray Ditz Co.  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP CODE: \_\_\_\_\_

TICKET 27088

PAGE 1 OF 1

SERVICE LOCATIONS:  
 1. Hayes, KS WELLPROJECT NO. # 3-25 LEASE Abel Ranch COUNTY/PARISH Osage STATE KS DATE 2-2-15 OWNER  
 2. Ness City, KS TICKET TYPE SALES CONTRACTOR Co RIG NAME/NO. \_\_\_\_\_ SHIPPED VIA CT DELIVERED TO Abel, KS ORDER NO. \_\_\_\_\_  
 3. WELL TYPE in WELL CATEGORY in Field JOB PURPOSE Cement Particular @ 2343' WELL PERMIT NO. \_\_\_\_\_ WELL LOCATION \_\_\_\_\_  
 4. REFERRAL LOCATION \_\_\_\_\_ INVOICE INSTRUCTIONS \_\_\_\_\_

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY.			UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY.	UM	QTY.		
575						40 mi				\$100	3000.00
576 D					Ramp Charge - CWT Part Collar	100				1250.00	1250.00
279					Bentonite Gel	1				25.00	25.00
290					D-Air	2				42.00	84.00
330					SWD Count	175				15.25	2668.75
276					FBale	44				2.25	99.00
581					Service Charge - Cement					1.50	412.50
583					Drillage					1.75	615.71

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

DATE SIGNED 2-2-15 TIME SIGNED 8:30  AM  PM

SWIFT OPERATOR Van Lommen APPROVAL \_\_\_\_\_

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

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

SURVEY  
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?  
 WE UNDERSTOOD AND MET YOUR NEEDS?  
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?  
 WE OPERATED THE EQUIPMENT AND PERFORMED JOBS CALCULATIONS SATISFACTORILY?  
 ARE YOU SATISFIED WITH OUR SERVICE?  
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL \$542.46  
 G.V.C. TAX 7.9% 234.18  
 TOTAL 5776.64

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 2-2-15 PAGE NO. 1

CUSTOMER Murkin Drilling Co WELL NO. 3-25 LEASE Abel Ranch JOB TYPE Cement Port Collar TICKET NO. 27088

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0820					2 3/8	5 1/2	ON location - Pump TR
								Set up TR - BIK TRK Delayed
	1020							Cut on location
								Port Collar @ 2343' = 9 BBL + 72 BBL Ann. (8 1/2')
	1030					C	1100	Test P.C. closed - OK
		3	3				600	Open P.C. - rate / Press - Have Blave
							C	Hook to 165 - 2 3/8'
		3				600		Start H.D. ahead / gel? (1 SK)
		3	8/5			600		Have cir - start cut
		3				600		Cut cir @ 150 SK @ 11.2 #/gal
		3				600		Tail in w/ 25 SKS @ 13 #/gal
		3				500		Fin cut - Displ 8 BBL H.D.
		3	8			600		Fin Displ -
							1100	Close P.C. + test - OK
								Ris run 5 SKS
		3	8/13			600		Rev-out 2 flags -
	11:30		25					Fin rev-out - All clean
								Job complete
								Wash up & Breakup
								150 SKS to cir @ 11.2 #/gal
								25 SKS tail in @ 13 #/gal
								175 SKS circ out used.
								30 SKS @ 11.2 #/gal tail to pit
	12:00							
								<i>[Signature]</i> Alan, Jon Stone & Fred.

MDCI  
 Abell Ranch #3-25  
 2310 FSL 400' FEL  
 Sec. 25-T12S-R31W  
 2852' KB

Formation	Sample tops	Datum	Ref	Log Tops	Datum	Ref
Anhydrite	2330	+522	flat	2337	+515	-7
B/Anhydrite	2364	+488	-9	2364	+488	-9
Topeka	3646	-794	-3	3645	-793	-2
Heebner	3867	-1015	-4	3867	-1015	-4
Lansing	3900	-1048	-5	3903	-1051	-8
Stark	4132	-1280	-7	4134	-1282	-9
Marmaton	4258	-1406	-6	4259	-1407	-7
Fort Scott	4382	-1530	-6	4383	-1531	-7
Cherokee	4410	-1558	-6	4410	-1558	-6
Mississippi	4479	-1627	-9	4482	-1630	-12
RTD	4600					
LTD				4602		