



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1213465  
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: \_\_\_\_\_

1213465

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
--	---

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> _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Janke 1-15
Doc ID	1213465

All Electric Logs Run

Dual Induction
Dual Compensated
Microresistivity
Borehole Compensated



Krod-MG  
acct

Date: 3/12/2014  
Invoice # 480

P.O.#:

Due Date: 4/11/2014  
Division: Russe//



**QUALITY OILWELL CEMENTING, INC.**  
PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
Phone:785-324-1041 fax:785-483-1087  
Email: cementing@ruraltel.net

# Invoice

**Contact:**  
Murfin Drilling Company  
**Address/Job Location:**  
Murfin Drilling Company  
P.O. Box 288  
Russell Ks 67665

**OPERATOR PAY MDC**  
**LEASE: Janke**  
1-15  
B

USED FOR \_\_\_\_\_  
APPROVED \_\_\_\_\_

**Reference:**  
JANKE 1-15

**Description of Work:**  
SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	No				
Common-Class A	150	\$ 2,514.71	Yes				
Pump Truck Mileage-Job to Nearest Camp	38	\$ 423.86	No				
Bulk Truck Matl-Material Service Charge	158	\$ 353.18	No				
Calcium Chloride	5	\$ 311.04	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	38	\$ 248.03	No				
Premium Gel (Bentonite)	3	\$ 54.59	Yes				

**Invoice Terms:**  
Net 30

SubTotal: \$ 4,925.94  
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (738.89)

SubTotal for Taxable Items:	\$ 2,448.28
SubTotal for Non-Taxable Items:	\$ 1,738.77
<b>Total:</b>	<b>\$ 4,187.05</b>
<b>Tax:</b>	<b>\$ 150.57</b>

6.15% Rush County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 4,337.62**  
**Applied Payments:**  
**Balance Due: \$ 4,337.62**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
This does not include any applicable taxes unless it is listed.  
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# QUALITY OILWELL CEMENTING, INC.

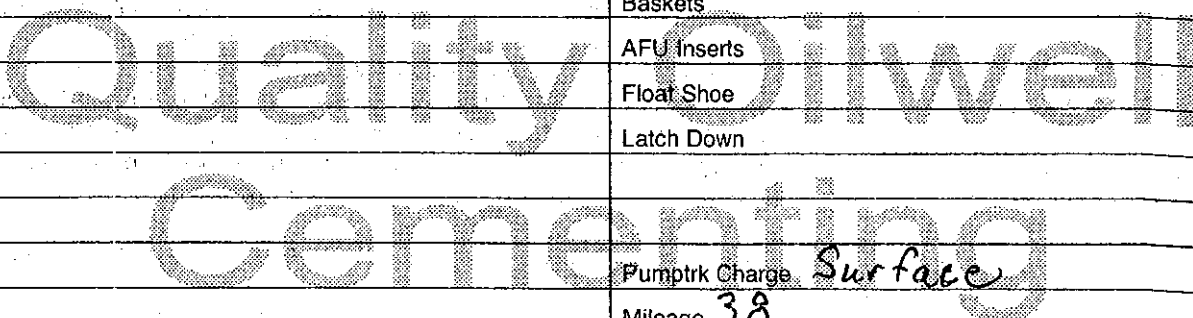
Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 480

Date	3-12-14	Sec.	15	Twp.	16	Range	20	County	Butch	State	Ks	On Location		Finish	500pm					
Lease	Jan Ke			Well No.	1-15			Owner	3S Winto											
Contractor	Muffin			16	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.															
Type Job	Surface			Charge To																
Hole Size	12 1/4			T.D.	220			Street								Muffin Dr 90				
Csg.	8 7/8			Depth	City												State			
Tbg. Size				Depth	The above was done to satisfaction and supervision of owner agent or contractor.															
Tool				Depth	Cement Amount Ordered												150 3/10cc 290gal			
Cement Left in Csg.	20ft			Shoe Joint	20ft			Meas Line									Displace		13	
<b>EQUIPMENT</b>														Common		150				
Pumptrk	17	No.	Cement	Helper												Poz. Mix				
Bulktrk	12	No.	Driver	Mick												Gel.		3		
Bulktrk	04	No.	Driver	Lannie												Calcium		5		
<b>JOB SERVICES &amp; REMARKS</b>														Hulls						
Remarks:	Jan Ke 1-15														Salt					
Rat Hole															Flowseal					
Mouse Hole															Kol-Seal					
Centralizers															Mud CLR 48					
Baskets															CFL-117 or CD110 CAF 38					
D/V or Port Collar															Sand					
Cement + did Circulate														Handling		158				
														Mileage						
<b>FLOAT EQUIPMENT</b>														Guide Shoe						
														Centralizer						
														Baskets						
														AFU Inserts						
														Float Shoe						
														Latch Down						
														Pumptrk Charge		Surface				
														Mileage		38				
														Tax						
														Discount						
														Total Charge						
X Signature	Ag. [Signature]																			





**QUALITY OILWELL CEMENTING, INC.**  
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
 Phone: 785-324-1041 fax: 785-483-1087  
 Email: cementing@ruraltel.net

Date: 3/19/2014  
 Invoice # 485

*Prod-MG acct*

P.O.#:  
 Due Date: 4/18/2014  
 Division: *Russell*

# Invoice

**Contact:**  
 Murfin Drilling Company  
**Address/Job Location:**  
 Murfin Drilling Company  
 P.O. Box 288  
 Russell Ks 67665

**OPERATOR PAY MDC**

USED FOR \_\_\_\_\_

LEASE: *Janke*

APPROVED \_\_\_\_\_

*1-15*  
*bn*

**Reference:**  
 JANKE 1-15

**Description of Work:**  
 PLUG JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	Yes				
Common-Class A	162	\$ 2,715.88	Yes				
POZ Mix-Standard	108	\$ 760.45	Yes				
Bulk Truck Matl-Material Service Charge	280	\$ 625.88	Yes				
Pump Truck Mileage-Job to Nearest Camp	38	\$ 423.86	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	38	\$ 248.03	Yes				
Premium Gel (Bentonite)	9	\$ 163.76	Yes				
Flo Seal	67	\$ 149.76	Yes				
Dry Hole Plug	1	\$ 62.59	Yes				

**Invoice Terms:**

Net 30

	SubTotal:	\$ 6,170.75
	<i>Discount Available ONLY if Invoice is Paid &amp; Received within listed terms of invoice:</i>	\$ (925.61)
		SubTotal for Taxable Items: \$ 5,245.14
		SubTotal for Non-Taxable Items: \$ -
		Total: \$ 5,245.14
		Tax: \$ 322.58

6.15% Ellis County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 5,567.72**  
**Applied Payments:**  
**Balance Due: \$ 5,567.72**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
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*[Handwritten signature]*

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 485

Date	3-19-14	Sec.	15	Twp.	16	Range	20	County	Rush	State	Ks	On Location		Finish	200 AM
------	---------	------	----	------	----	-------	----	--------	------	-------	----	-------------	--	--------	--------

Location **Ellis Stock E to 140**

Lease **Janke** Well No. **1-15** Owner **J S Winto**

Contractor **Murfin 16**  
Type Job **plug 506**  
To Quality Oilwell Cementing, Inc.  
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size **7 7/8** T.D. **4040** Charge To **Murfin Dr 91**

Csg. **Dill pipe** Depth Street

Tbg. Size Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. Shoe Joint Cement Amount Ordered **270 60/40 4% gel**

Meas Line Displace **1/4 flow**

**EQUIPMENT**

Pumptrk	17	No.	Cement		Common	162
			Helper	<b>Matt</b>	Poz. Mix	108
Bulktrk	19	No.	Driver	<b>Nick</b>	Gel.	10
			Driver		Calcium	
Bulktrk	pu	No.	Driver	<b>Chad</b>		
			Driver			

**JOB SERVICES & REMARKS**

Remarks:

Rat Hole **30 SKS** Flowseal **67#**

Mouse Hole **20 SKS** Kol-Seal

Centralizers Mud CLR 48

Baskets CFL-117 or CD110 CAF 38

D/V or Port Collar Sand

**372 ft 50 SKS** Handling **280**

**1470 ft 50 SKS** Mileage

**950 ft 50 SKS**

**270 ft 50 SKS**

**60 ft 20 SKS**

**FLOAT EQUIPMENT**

Guide Shoe

Centralizer

Baskets

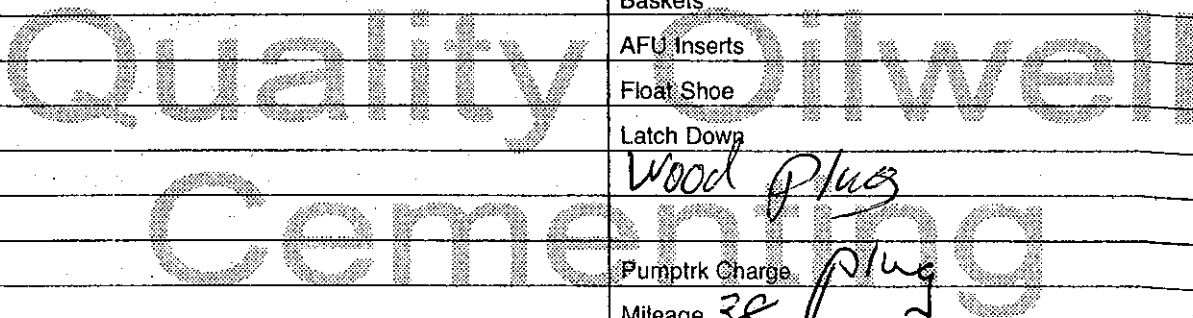
AFU Inserts

Float Shoe

Latch Down **Wood Plug**

Pumptrk Charge **plug**

Mileage **38**



Signature	<b>Orley Kelley</b>	Tax	
		Discount	
		Total Charge	



Janke #1-15  
 Daily Drilling Report  
 Page Two

3/19/14 RTD: 4040'. Cut 75'. DT: None. CT: 20¼ hrs. Dev.: ¾° @ 4040'. HC @ 10:30AM 3/18. Pioneer logged 1:30PM – 6:30PM 3/18/14. LTD: 4041'. Quality plugged hole as follows using 60/40 Poz, 4% Gel, 50sxs @ 3921', 50sxs @ 1470', 50sxs @ 950', 50sxs @ 270', 20sxs @ 60', 30sxs RH, 20sxs MH. Started @ 10:30PM 3/18. Compl @ 2:00AM 3/19. Orders by Daniel Sellers KCC Dodge City. RR @ 6:00AM 3/19. FINAL REPORT.

MDCI Janke #1-15 1320 FNL 2310 FEL Sec. 15-T16S-R20W 2183' KB							MDCI McGowan #1-15 900 FNL 1900 FWL Sec. 15-T16S-R20W 2190' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	1422	+761	+5	1420	+763	+7	1434	+756
B/Anhydrite	1461	+722	+2	1459	+724	+4	1470	+720
Topeka	3232	-1049	Flat	3232	-1049	Flat	3239	-1049
Heebner	3519	-1336	-4	3517	-1334	-2	3522	-1332
Toronto	3536	-1353	-2	3536	-1353	-2	3541	-1351
Lansing	3561	-1378	-5	3558	-1375	-2	3563	-1373
BKC	3818	-1635	-4	3818	-1635	-4	3821	-1631
Arbuckle	3941	-1758	-3	3954	-1771	-16	3945	-1755
RTD	4040						4060	-1870
LTD				4041			4058	-1868



## DRILL STEM TEST REPORT

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

250 N Water  
Ste. 300  
Wichita, KS 67202

ATTN: Mike Maune

### **Janke #1-15**

#### **15-16S-20W Rush, KS**

Start Date: 2014.03.16 @ 03:33:56

End Date: 2014.03.16 @ 12:06:26

Job Ticket #: 54017                      DST #: 1

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

Printed: 2014.03.20 @ 18:27:59



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**15-16S-20W Rush, KS**

250 N Water  
Ste. 300  
Wichita, KS 67202  
ATTN: Mike Maune

**Janke #1-15**

Job Ticket: 54017

**DST#: 1**

Test Start: 2014.03.16 @ 03:33:56

## GENERAL INFORMATION:

Formation: **LKC B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:33:26

Time Test Ended: 12:06:26

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan L

Unit No: 48

**Interval: 3574.00 ft (KB) To 3600.00 ft (KB) (TVD)**

Reference Elevations: 2183.00 ft (KB)

Total Depth: 3600.00 ft (KB) (TVD)

2177.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

**Serial #: 8321**

**Inside**

Press@RunDepth: 58.50 psig @ 3575.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.16

End Date:

2014.03.16

Last Calib.:

2014.03.16

Start Time: 03:33:57

End Time:

12:06:26

Time On Btm:

2014.03.16 @ 06:31:26

Time Off Btm:

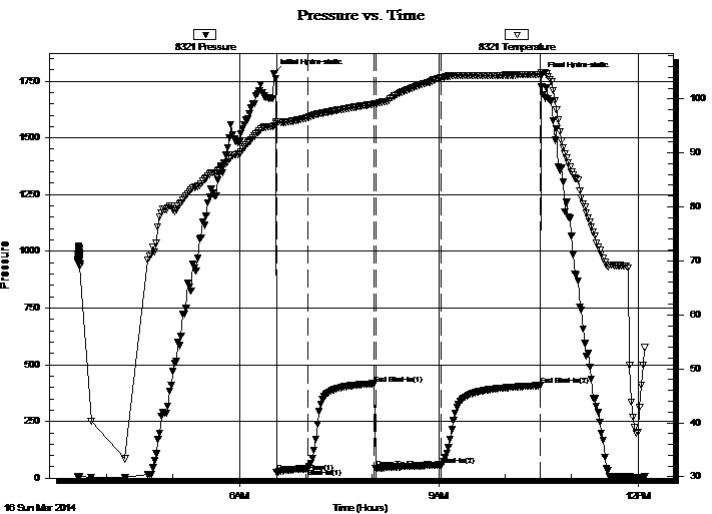
2014.03.16 @ 10:32:26

TEST COMMENT: 30- IF- Slow ly built to 3 1/2"

60- IS- No blow

60- FF- Slow ly built to 4"

90- FSI- No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1784.84	95.05	Initial Hydro-static
2	25.01	95.40	Open To Flow (1)
30	41.52	96.53	Shut-In(1)
90	416.49	99.06	End Shut-In(1)
92	43.31	99.09	Open To Flow (2)
151	58.50	103.93	Shut-In(2)
240	408.09	104.58	End Shut-In(2)
241	1769.82	104.86	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	MW, 30%M 70%W	0.83
2.00	O	0.03

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**15-16S-20W Rush, KS**

250 N Water  
Ste. 300  
Wichita, KS 67202  
ATTN: Mike Maune

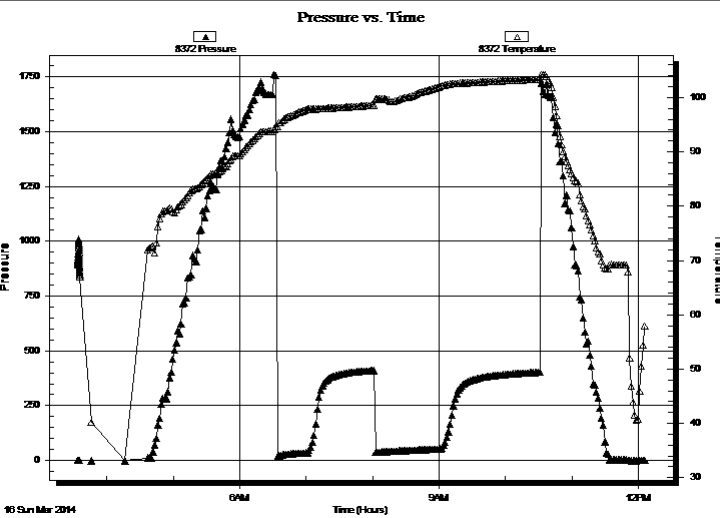
**Janke #1-15**  
Job Ticket: 54017      **DST#: 1**  
Test Start: 2014.03.16 @ 03:33:56

## GENERAL INFORMATION:

Formation: **LKC B**  
Deviated: No Whipstock:                      ft (KB)      Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 06:33:26      Tester: Brannan L  
Time Test Ended: 12:06:26      Unit No: 48  
  
Interval: **3574.00 ft (KB) To 3600.00 ft (KB) (TVD)**      Reference Elevations: 2183.00 ft (KB)  
Total Depth: 3600.00 ft (KB) (TVD)      2177.00 ft (CF)  
Hole Diameter: 7.88 inches      Hole Condition: Fair      KB to GR/CF: 6.00 ft

**Serial #: 8372      Outside**  
Press@RunDepth:                      psig @      3575.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.03.16      End Date: 2014.03.16      Last Calib.: 2014.03.16  
Start Time: 03:33:33      End Time: 12:06:02      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30- IF- Slow ly built to 3 1/2"  
60- IS- No blow  
60- FF- Slow ly built to 4"  
90- FS- No blow



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

Recovery		
Length (ft)	Description	Volume (bbl)
80.00	MW, 30%M 70%W	0.83
2.00	O	0.03

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**15-16S-20W Rush, KS**

250 N Water  
Ste. 300  
Wichita, KS 67202  
ATTN: Mike Maune

**Janke #1-15**

Job Ticket: 54017

**DST#: 1**

Test Start: 2014.03.16 @ 03:33:56

## Tool Information

Drill Pipe:	Length: 3548.00 ft	Diameter: 3.75 inches	Volume: 48.47 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3574.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	53.00 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			3548.00	
Shut In Tool	5.00			3553.00	
Hydraulic tool	5.00			3558.00	
Jars	5.00			3563.00	
Safety Joint	2.00			3565.00	
Packer	5.00			3570.00	27.00 Bottom Of Top Packer
Packer	4.00			3574.00	
Stubb	1.00			3575.00	
Recorder	0.00	8321	Inside	3575.00	
Recorder	0.00	8372	Outside	3575.00	
Perforations	22.00			3597.00	
Bullnose	3.00			3600.00	26.00 Bottom Packers & Anchor

**Total Tool Length: 53.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co., Inc.

**15-16S-20W Rush, KS**

250 N Water  
Ste. 300  
Wichita, KS 67202  
ATTN: Mike Maune

**Janke #1-15**

Job Ticket: 54017

**DST#: 1**

Test Start: 2014.03.16 @ 03:33:56

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 64.00 sec/qt

Water Loss: 6.39 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 2500.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: 72000 ppm

deg API

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	MW, 30%M 70%W	0.831
2.00	O	0.027

Total Length: 82.00 ft      Total Volume: 0.858 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

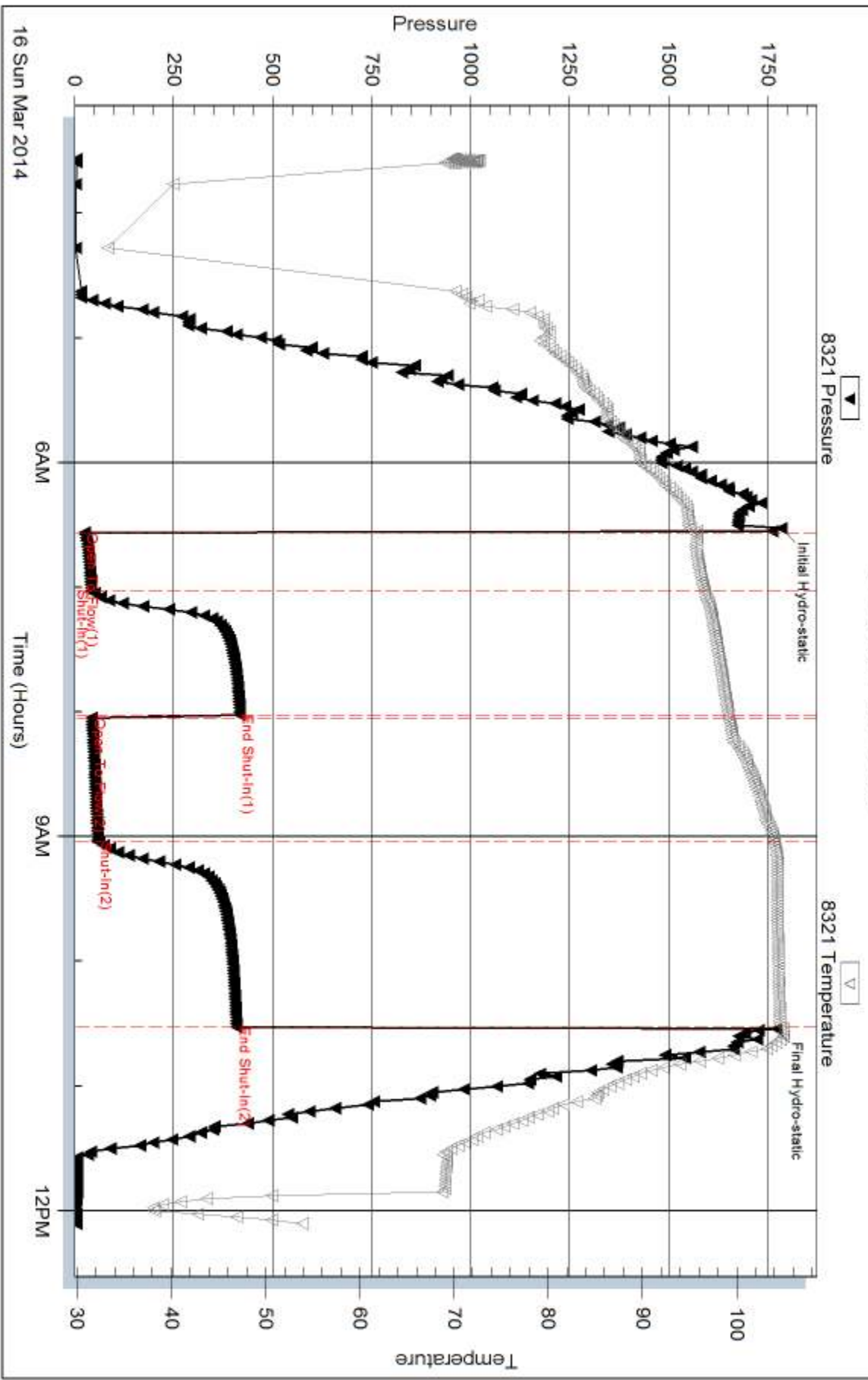
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

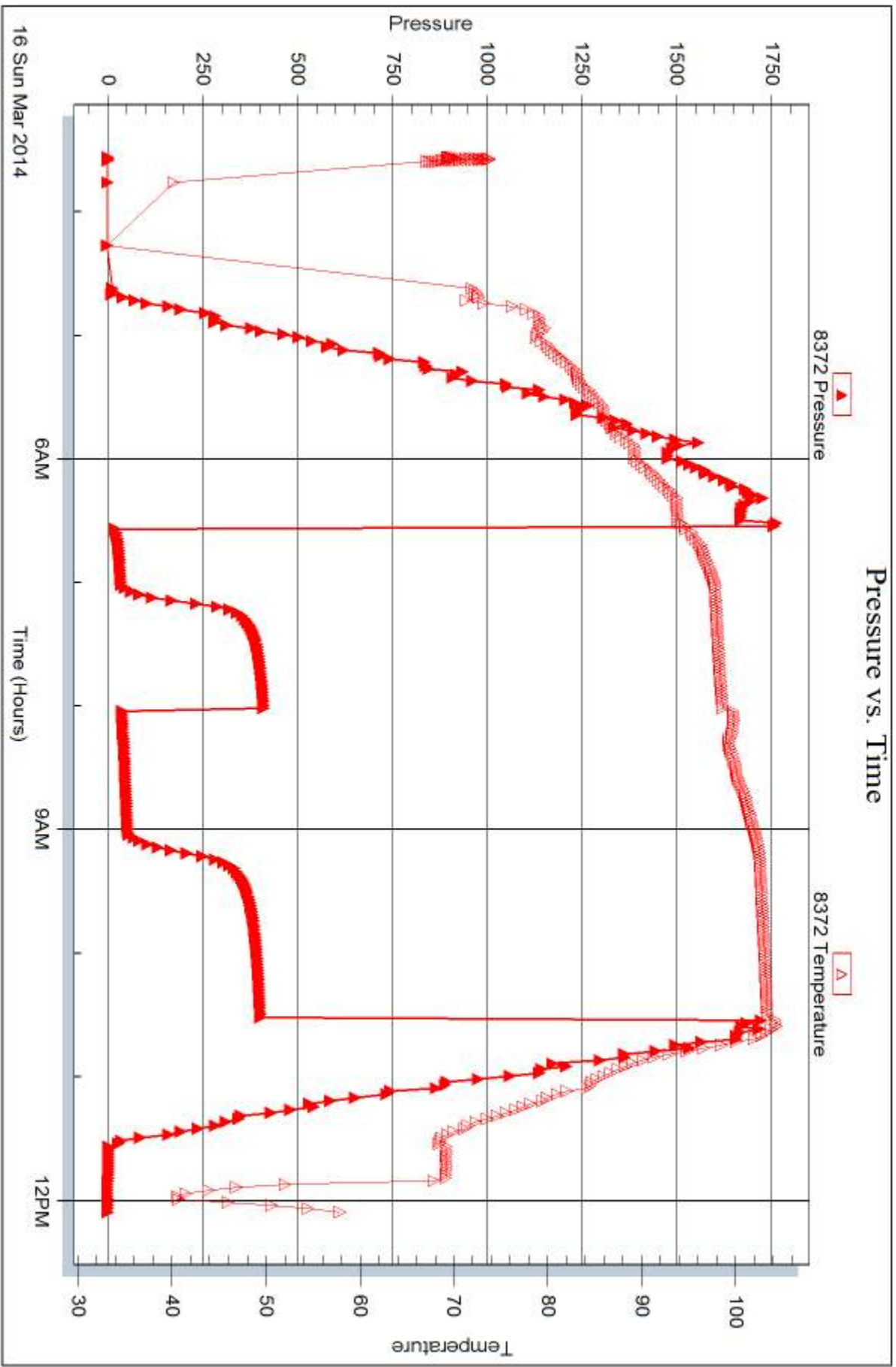


Serial #: 8372

Outside Murfin Drilling Co., Inc.

Janke #1-15

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54017

Printed: 2014.03.20 @ 18:28:01





## DRILL STEM TEST REPORT

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

250 N Water  
Ste. 300  
Wichita, KS 67202

ATTN: Mike Maune

### **Janke #1-15**

#### **15-16S-20W Rush, KS**

Start Date: 2014.03.17 @ 18:07:21

End Date: 2014.03.18 @ 02:08:21

Job Ticket #: 54018                      DST #: 2

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

Printed: 2014.03.20 @ 18:27:23



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**15-16S-20W Rush, KS**

250 N Water  
Ste. 300  
Wichita, KS 67202  
ATTN: Mike Maune

**Janke #1-15**

Job Ticket: 54018

**DST#: 2**

Test Start: 2014.03.17 @ 18:07:21

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:44:51  
 Time Test Ended: 02:08:21  
 Interval: **3922.00 ft (KB) To 3955.00 ft (KB) (TVD)**  
 Total Depth: 3955.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brannan L  
 Unit No: 48  
 Reference Elevations: 2183.00 ft (KB)  
 2177.00 ft (CF)  
 KB to GR/CF: 6.00 ft

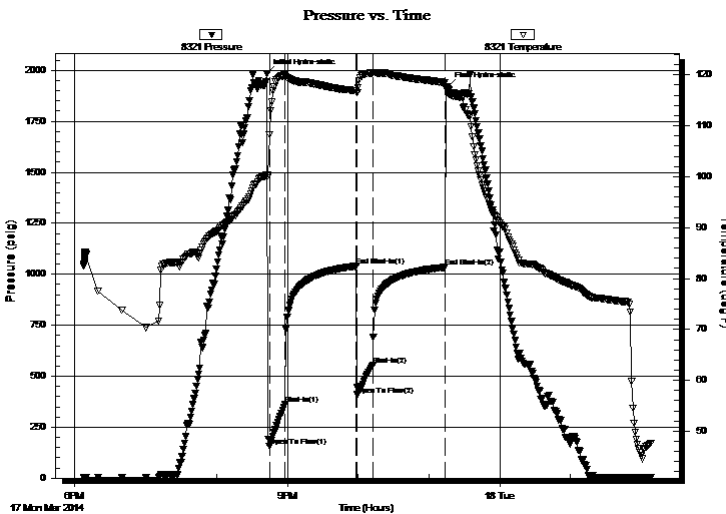
## Serial #: 8321

**Outside**

Press@RunDepth: 555.18 psig @ 3923.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.03.17 End Date: 2014.03.18 Last Calib.: 2014.03.18  
 Start Time: 18:07:22 End Time: 02:08:21 Time On Btm: 2014.03.17 @ 20:42:51  
 Time Off Btm: 2014.03.17 @ 23:16:21

TEST COMMENT: 15- IF- BOB 1 min  
 60- IS- No blow  
 15- FF- BOB 2 mins  
 60- FS- No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1985.51	100.36	Initial Hydro-static
2	156.65	108.20	Open To Flow (1)
15	360.96	120.09	Shut-In(1)
76	1039.64	116.85	End Shut-In(1)
77	409.34	116.51	Open To Flow (2)
90	555.18	120.39	Shut-In(2)
151	1034.11	118.53	End Shut-In(2)
154	1922.07	116.28	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1175.00	MW, 20%M 80%W	15.79
10.00	O	0.14
0.00	20' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**15-16S-20W Rush, KS**

250 N Water  
Ste. 300  
Wichita, KS 67202  
ATTN: Mike Maune

**Janke #1-15**

Job Ticket: 54018

**DST#: 2**

Test Start: 2014.03.17 @ 18:07:21

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:44:51

Time Test Ended: 02:08:21

**Interval: 3922.00 ft (KB) To 3955.00 ft (KB) (TVD)**

Total Depth: 3955.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan L

Unit No: 48

Reference Elevations: 2183.00 ft (KB)

2177.00 ft (CF)

KB to GR/CF: 6.00 ft

**Serial #: 8372**

**Inside**

Press@RunDepth: psig @ 3923.00 ft (KB)

Start Date: 2014.03.17

End Date: 2014.03.18

Capacity: 8000.00 psig

Last Calib.: 2014.03.18

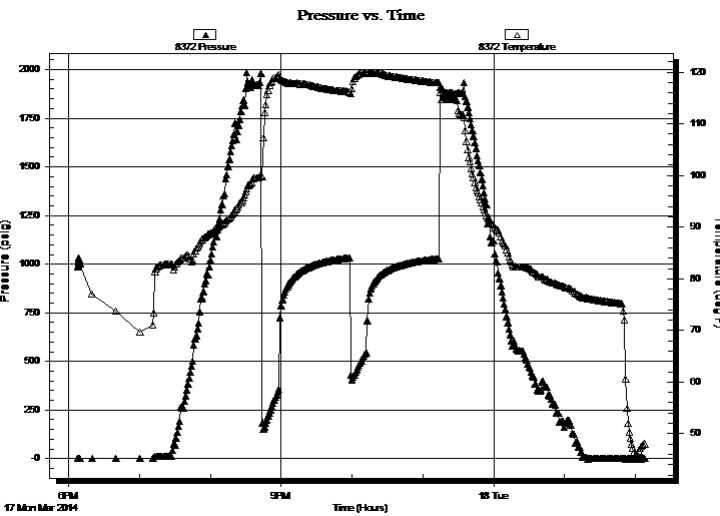
Start Time: 18:07:25

End Time: 02:08:24

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 15- IF- BOB 1 min  
60- IS- No blow  
15- FF- BOB 2 mins  
60- FS- No blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
1175.00	MW, 20%M 80%W	15.79
10.00	O	0.14
0.00	20' 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., Inc.

**15-16S-20W Rush, KS**

250 N Water  
Ste. 300  
Wichita, KS 67202  
ATTN: Mike Maune

**Janke #1-15**

Job Ticket: 54018

**DST#: 2**

Test Start: 2014.03.17 @ 18:07:21

## Tool Information

Drill Pipe:	Length: 3896.00 ft	Diameter: 3.75 inches	Volume: 53.22 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3922.00 ft			Final	61000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	33.00 ft				
Tool Length:	60.00 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			3896.00	
Shut In Tool	5.00			3901.00	
Hydraulic tool	5.00			3906.00	
Jars	5.00			3911.00	
Safety Joint	2.00			3913.00	
Packer	5.00			3918.00	27.00 Bottom Of Top Packer
Packer	4.00			3922.00	
Stubb	1.00			3923.00	
Recorder	0.00	8372	Inside	3923.00	
Recorder	0.00	8321	Outside	3923.00	
Perforations	29.00			3952.00	
Bullnose	3.00			3955.00	33.00 Bottom Packers & Anchor

**Total Tool Length: 60.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co., Inc.

**15-16S-20W Rush, KS**

250 N Water  
Ste. 300  
Wichita, KS 67202  
ATTN: Mike Maune

**Janke #1-15**

Job Ticket: 54018

**DST#: 2**

Test Start: 2014.03.17 @ 18:07:21

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 7.98 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 5000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

deg API

Water Salinity: 51000 ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1175.00	MW, 20%M 80%W	15.789
10.00	O	0.137
0.00	20' GIP	0.000

Total Length: 1185.00 ft      Total Volume: 15.926 bbl

Num Fluid Samples: 0

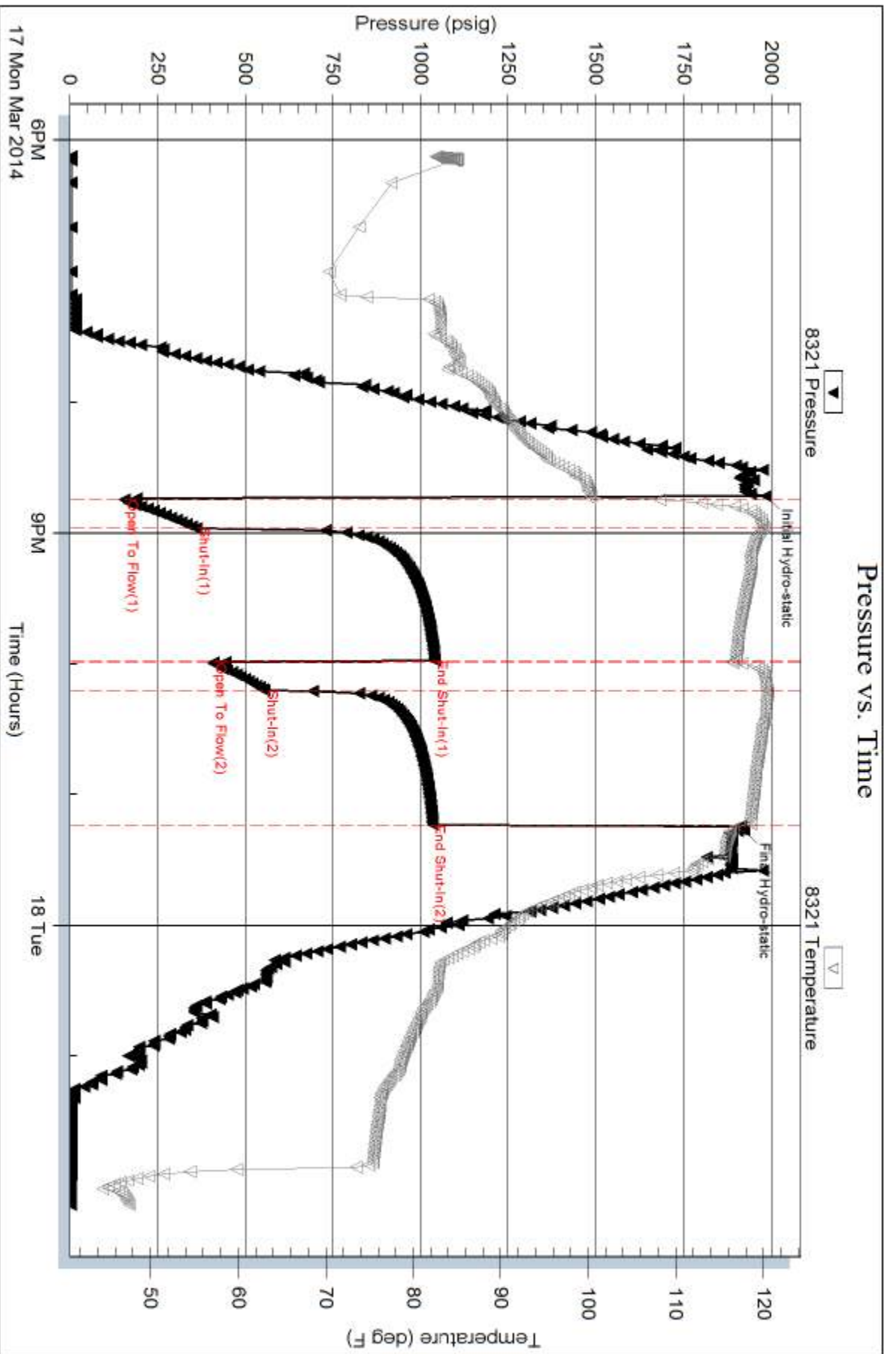
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



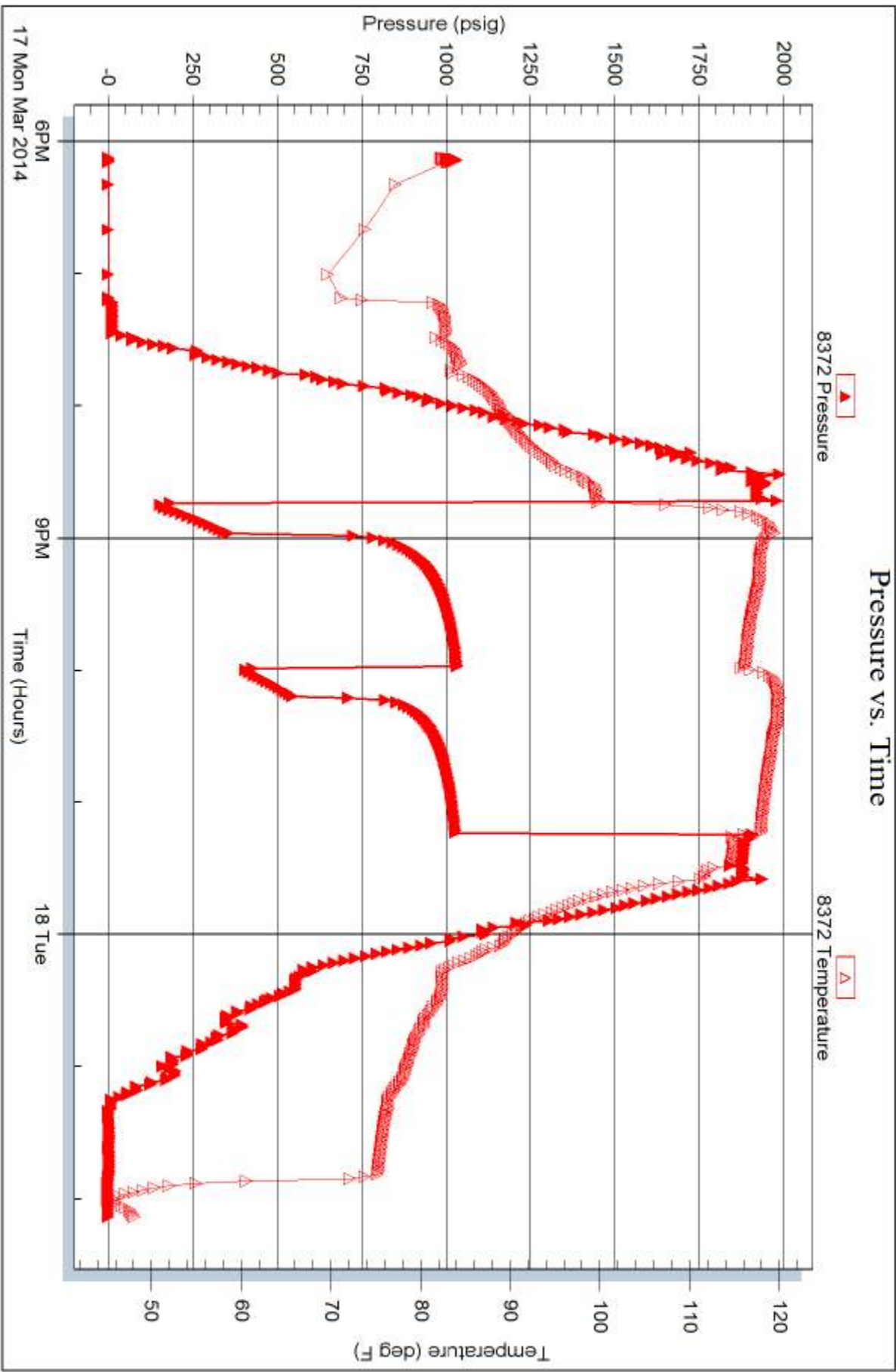
Serial #: 8372

Inside

Murfin Drilling Co., Inc.

Janke #1-15

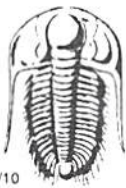
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 54018

Printed: 2014.03.20 @ 18:27:25



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54017

Well Name & No. Janke #1-15 Test No. 1 Date 3/16/14  
 Company Murfin Drilling Co., Inc. Elevation 2183 KB 2177 GL  
 Address 250 N. Wate St. 300 Wichita, KS 67202  
 Co. Rep / Geo. Mike Maune Rig Murfin 16  
 Location: Sec. 15 Twp. 16S Rge. 20W Co. Rush State KS

Interval Tested 3574-3600 Zone Tested Lansing B  
 Anchor Length 26' Drill Pipe Run 3548 Mud Wt. 8.6  
 Top Packer Depth 3569 Drill Collars Run 30 Vis 64  
 Bottom Packer Depth 3574 Wt. Pipe Run \_\_\_\_\_ WL 6.4  
 Total Depth 3600 Chlorides 2500 ppm System LCM 1 1/2#

Blow Description IF - slowly built to 3 1/2"  
ISI - No blow  
FF - slowly built to 4"  
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>0</u>				
<u>80</u>	<u>MW</u>			<u>70</u>	<u>30</u>

Rec Total 82' BHT 105° Gravity \_\_\_\_\_ API RW .19 @ 35° F Chlorides 22,000 ppm

(A) Initial Hydrostatic <u>1785</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0324</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0334</u>
(C) First Final Flow <u>42</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0633</u>
(D) Initial Shut-In <u>416</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>1033</u>
(E) Second Initial Flow <u>43</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>1206</u>
(F) Second Final Flow <u>59</u>	<input checked="" type="checkbox"/> Mileage <u>64 RT</u> 99.20	Comments _____
(G) Final Shut-In <u>408</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1770</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

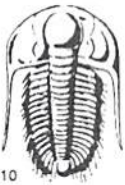
Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 90

<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
<input type="checkbox"/> Day Standby _____	Total <u>1574.20</u>
<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
Sub Total <u>1574.20</u>	

Approved By \_\_\_\_\_ Our Representative Braman L

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. 54018

Well Name & No. Janke # 1-15 Test No. 2 Date 3/17/14  
 Company Murfin Drilling CO., Inc. Elevation 2183 KB 2177 GL  
 Address 250 N. Water Ste. 300 Wichita, KS 67202  
 Co. Rep / Geo. Mik Manne Rig Murfm 16  
 Location: Sec. 15 Twp. 16S Rge. 20W Co. Rush State KS

Interval Tested 3922-3955 Zone Tested Arbuckle  
 Anchor Length 33' Drill Pipe Run 3896 Mud Wt. 9.2  
 Top Packer Depth 3917 Drill Collars Run 30 Vis 58  
 Bottom Packer Depth 3922 Wt. Pipe Run \_\_\_\_\_ WL 8.0  
 Total Depth 3955 Chlorides 5000 ppm System LCM 3#

Blow Description IF-BOB 1min  
ISI- No blow  
FF-BOB 2mins  
FSI- No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>0</u>				
<u>1175</u>	<u>NW</u>			<u>80</u>	<u>20</u>
	<u>20' CIP</u>				

Rec Total 1185 BHT 119° Gravity \_\_\_\_\_ API RW .24 @ 39 °F Chlorides 51,000 ppm

(A) Initial Hydrostatic 1986  Test 1150 T-On Location 1801  
 (B) First Initial Flow 157  Jars 250 T-Started 1807  
 (C) First Final Flow 361  Safety Joint 75 T-Open 2043  
 (D) Initial Shut-In 1040  Circ Sub \_\_\_\_\_ T-Pulled 2313  
 (E) Second Initial Flow 409  Hourly Standby \_\_\_\_\_ T-Out 0208  
 (F) Second Final Flow 555  Mileage 64 RT x 2 Comments Loaded tools  
 (G) Final Shut-In 1034  Sampler 198.40 3/18 @ 1945  
 (H) Final Hydrostatic 1922  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 15  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_ Sub Total 200  
 Final Flow 15  Day Standby 1d 6h Total 1873.40  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1673.40

Approved By \_\_\_\_\_ Our Representative Boannen L

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LITHOLOGY STRIP LOG

WellSight Systems
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Murfin Drilling Company, Inc Janke #1-15
Well Id:
Location: 1320 FNL & 2310 FEL Section 15-16S-R20W
License Number: API: 15-165-22061
Surface Coordinates: W2 W2 NE Section 15-16S-R20W
Region: Rush Co., Kansas
Drilling Completed: March 18, 2014

Bottom Hole Coordinates:
Ground Elevation (ft): 2178 K.B. Elevation (ft): 2183
Logged Elevation (ft): 3130 To: 4040 Total Depth (ft): 4040
Formation: RTD 4040 (-1587), LTD 4041 (-1585)
Type of Drilling Fluid: Chemical. Displaced at 2982'.
Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Murfin Drilling Company, Inc
Address: 250 N. Water, Ste 300
Wichita, Kansas 67202

GEOLOGIST

Name: Mikeal K. Maune
Company: Consulting Petroleum Geologist - Kansas Licensed No. 210
Address: Wichita, Kansas
Office: 316-722-8173

COMMENTS

Surface Casing: Spud @ 12:45 pm 3/12/2014. 8 5/8" set @ 218' w/150 sx, comm. 3% cc, 2% gel. PD @ 5:00 pm 3/12/2014, cmt circ. Production Casing: None. D&A.

Deviation Surveys: 1/4 @ 220 ft, 3/4 @ 3600, 3/4 @ 3955, 3/4 @ 4040 ft RTD.
No Pipe Strap.
Murfin Drilling Rig #16 Bit Record:
#1 12 1/4" Varfel CH1GMS in @ GL, out @ 220'.
#2 7 7/8" HTCO 6X20C in @ 220', out @ 3600'.
#3 7 7/8" HTCO 6X20C in @ 3600', out @ 4040'.

Gas Detector: None
Mud System: Kansas Drilling Technologies
DSTs: Tribolite Testing Inc.

OH Logs: Pioneer Energy Services DIL, CNL/CDL, MEL/BHCS.

Note: Correlation of the OH Log with the drilling time indicates the depths are approximately equal from the Topoka to RTD. The Gamma Ray curve was imported directly into this log without any depth adjustment. The Rotary drilling time has been correlated with the OH Log and the formation tops on this report adjusted accordingly.

OH Log Formation Tops: Anhydrite 1420 (+763), Base Anhydrite 1460 (+723), Topoka 3232 (-1049), Heebner 3519 (-1336), Lansing 3557 (-1374), Arbuclke 3955 (-1772), LTD 4041 (-1585).

DSTs

DST #1 (Lansing B) 3574-3600/30-60-90. 1st Op: Built to 3 1/2 inches in 30 min. 2nd Op: Built to 4 inches. Recovery Total 82' Fluid. 2' Free Oil. 80' MW (70% Wtr, 30% Mud). IH 1785#, IFF 25-42#, ISIP 416#, FFP 43-59#, FSIP 408#, FH 1770#, BHT 105 F.

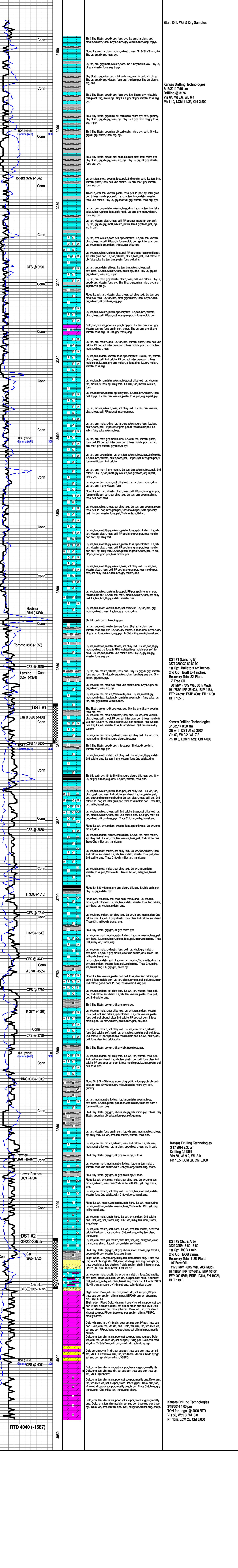
DST #2 (Sst & Arb) 3922-3955/15-60-150. 1st Op: BOB 1 min. 2nd Op: BOB 2 min. Recovery Total 1185' Fluid. 10' Free Oil. 1175' MW (80% Wtr, 20% Mud). IH 1986#, IFF 157-361#, ISIP 1040#, FFP 409-555#, FSIP 1034#, FH 1922#, BHT 119 F.

ROCK TYPES legend including Anhy, Bent, Brecc, Cht, Cylst, Coal, Congl, Sty dolo, Sty dol, Dol, Gyp, Sty lmst, Lmst, Mrlst, Salt, Shale, Siltst, Ss, Black sh, Gry sh, Shale, Shlyst, Shysh.

ACCESSORIES legend including Chlorite, Dol, Sand, Silt, Fossil (Algae, Amph, Belm, Bioclst, Bryozoa, Cephal, Coral, Crin, Echin, Fish, Fossil, Gastro, Oolite, Ostra), Pelec, Peloidal, Pisolite, Plant, Strom, Fuss, Oomoldic, STRINGER (Anhy, Arg, Bent, Coal, Dol, Gyp, Ls, Mrst, Siltstrg, Sststrg, Carbst, Cylstn, Dol).

MINERAL legend including Anhy, Arg, Bent, Brecc, Cht, Cylst, Coal, Calc, Carb, Chtdk, Chl, Chl, Ferrpel, Ferr, Glau, Gyp, Marl, Nodule, Phos, Pyr, Salt, Sand, Silt.

TEXTURE legend including Boundst, Chalky, Cryxln, Earthin, Finexln, Grainst, Lithogr, Microxln, Mudst, Packst, Wackest.



Start 10 ft. Wet & Dry Samples

DST #1 (Lansing B) 3574-3600/30-60-90-90. 1st Op: Built to 3 1/2" inches. 2nd Op: Built to 4 inches. Recovery Total 82' Fluid. 2' Free Oil. 80' MW (70% Wtr, 30% Mud). IH 1785#, IFF 25-42#, ISIP 416#, FFP 43-59#, FSIP 408#, FH 1770#, BHT 105 F.

DST #2 (Sst & Arb) 3922-3955/15-60-150-150. 1st Op: BOB 1 min. 2nd Op: BOB 2 min. Recovery Total 1185' Fluid. 10' Free Oil. 1175' MW (80% Wtr, 20% Mud). IH 1986#, IFF 157-361#, ISIP 1040#, FFP 409-555#, FSIP 1034#, FH 1922#, BHT 119 F.

DST #1 (Lansing B) 3574-3600/30-60-90-90. 1st Op: Built to 3 1/2" inches. 2nd Op: Built to 4 inches. Recovery Total 82' Fluid. 2' Free Oil. 80' MW (70% Wtr, 30% Mud). IH 1785#, IFF 25-42#, ISIP 416#, FFP 43-59#, FSIP 408#, FH 1770#, BHT 105 F.

DST #2 (Sst & Arb) 3922-3955/15-60-150-150. 1st Op: BOB 1 min. 2nd Op: BOB 2 min. Recovery Total 1185' Fluid. 10' Free Oil. 1175' MW (80% Wtr, 20% Mud). IH 1986#, IFF 157-361#, ISIP 1040#, FFP 409-555#, FSIP 1034#, FH 1922#, BHT 119 F.

DST #1 (Lansing B) 3574-3600/30-60-90-90. 1st Op: Built to 3 1/2" inches. 2nd Op: Built to 4 inches. Recovery Total 82' Fluid. 2' Free Oil. 80' MW (70% Wtr, 30% Mud). IH 1785#, IFF 25-42#, ISIP 416#, FFP 43-59#, FSIP 408#, FH 1770#, BHT 105 F.

DST #2 (Sst & Arb) 3922-3955/15-60-150-150. 1st Op: BOB 1 min. 2nd Op: BOB 2 min. Recovery Total 1185' Fluid. 10' Free Oil. 1175' MW (80% Wtr, 20% Mud). IH 1986#, IFF 157-361#, ISIP 1040#, FFP 409-555#, FSIP 1034#, FH 1922#, BHT 119 F.

DST #1 (Lansing B) 3574-3600/30-60-90-90. 1st Op: Built to 3 1/2" inches. 2nd Op: Built to 4 inches. Recovery Total 82' Fluid. 2' Free Oil. 80' MW (70% Wtr, 30% Mud). IH 1785#, IFF 25-42#, ISIP 416#, FFP 43-59#, FSIP 408#, FH 1770#, BHT 105 F.

DST #2 (Sst & Arb) 3922-3955/15-60-150-150. 1st Op: BOB 1 min. 2nd Op: BOB 2 min. Recovery Total 1185' Fluid. 10' Free Oil. 1175' MW (80% Wtr, 20% Mud). IH 1986#, IFF 157-361#, ISIP 1040#, FFP 409-555#, FSIP 1034#, FH 1922#, BHT 119 F.

DST #1 (Lansing B) 3574-3600/30-60-90-90. 1st Op: Built to 3 1/2" inches. 2nd Op: Built to 4 inches. Recovery Total 82' Fluid. 2' Free Oil. 80' MW (70% Wtr, 30% Mud). IH 1785#, IFF 25-42#, ISIP 416#, FFP 43-59#, FSIP 408#, FH 1770#, BHT 105 F.

DST #2 (Sst & Arb) 3922-3955/15-60-150-150. 1st Op: BOB 1 min. 2nd Op: BOB 2 min. Recovery Total 1185' Fluid. 10' Free Oil. 1175' MW (80% Wtr, 20% Mud). IH 1986#, IFF 157-361#, ISIP 1040#, FFP 409-555#, FSIP 1034#, FH 1922#, BHT 119 F.